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CEP REGULAR MEETING
SONGS Strategic Plan Update and Decommissioning
Status
Via Skype, Thursday, November 19, 2020

TRANSCRIPT OF MEETING
November 19, 2020

Reported by:
Denise Herft, CSR #12983
Job No. 4304496
Pages 1 - 151

1 SAN ONOFRE DECOMMISSIONING
2 COMMUNITY ENGAGEMENT PANEL MEETING
3 STATE OF CALIFORNIA, COUNTY OF ORANGE
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9 Transcript of video-recorded meeting,
10 taken via Skype commencing at 5:30 p.m., Thursday,
11 November 19, 2020.
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1 COMMUNITY ENGAGEMENT PANEL MEMBERS:
2 CEP CHAIRMAN - DR. DAVID G. VICTOR
UNIVERSITY of CALIFORNIA, SAN DIEGO
3
VICE CHAIRMAN - DAN STETSON
4 THE NICHOLAS ENDOWMENT
5 CEP SECRETARY - MARTHA McNICHOLAS
CAPISTRANO UNIFIED SCHOOL DISTRICT BOARD OF
6 TRUSTEES
7 HON. JOHN TAYLOR
SAN JUAN CAPISTRANO CITY COUNCIL
8
HON. PAUL WYATT
9 CITY of DANA POINT
10 DONNA BOSTON
ORANGE COUNTY SHERIFF'S DEPARTMENT
11
RICH HAYDON
12 CALIFORNIA STATE PARKS
13 GARRY BROWN
ORANGE COUNTY COASTKEEPER
14
CAPTAIN MEL VERNON
15 SAN LUIS REY BAND of MISSION INDIANS
16 MARNI MAGDA
SIERRA CLUB, ANGELES CHAPTER
17
TED QUINN
18 AMERICAN NUCLEAR SOCIETY
19 KATHY WARD
20 DOUG BAUDER
RANDALL GRANAAS
21 VINCENT BILOVSKY
JOHN TAYLOR
22 ELIZABETH HELVEY
JOSEPH HEZIR
23 TOM ISSACS
JERRY STEPHENSON
24 RON PONTES
MANUEL CAMARGO
25

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PUBLIC COMMENT PERIOD

PAGE LINE

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1 Via Skype, Thursday, November 19, 2020

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3 CHAIRMAN DAVID VICTOR: Good evening,

4 everyone. It's the 19th of November 2020.

5 Unusual times. My name is David Victor. I'm the

6 chairman of the Community Engagement Panel. I

7 wanted to thank everybody for spending your

8 evening with us tonight. This meeting is being

9 recorded and as is our custom, the entire meeting

10 and all the documentation will be put up on

11 songscommunity.com and the documentation for

12 tonight's meeting is already posted there last

13 Friday, November 13th.

14 Before we get into the meeting, I want a

15 word on safety. We're not together for

16 understandable reasons but -- and the virus

17 continues to rage. Governor reported 51 percent

18 increase in cases in the first week of November so

19 I urge everyone to protect yourself and your

20 families, wear masks, do social distancing, get

21 tested where that's available, and we are going to

22 get through this, and I look forward to our first

23 Community Engagement Panel meeting all in person

24 whenever that may be feasible.

25 Thanks everyone for joining us tonight.

1 Thank you to the CEP members and also thank you to
2 the staff that do so much to make these meetings
3 feasible. It's an especially heavy lift during
4 these times of social distancing.

5 Julie Martinez who is on the line with us
6 from San Onofre will advance the slides remotely.
7 There's a single deck, that deck as I mentioned
8 earlier, was posted already last Friday.

9 I wanted to remind everybody that the
10 community Engagement Panel is designed as a
11 two-way conduit between the communities that are
12 affected by decommissioning of the San Onofre
13 plant and operator of that decommissioning process
14 Southern California Edison. It's a two-way road,
15 and I think we have demonstrated the importance of
16 thinking about this and acting on this as a
17 two-way road.

18 Could we go to the next slide.

19 The agenda is upon the screen. We're
20 going to have some initial marks, we're going to
21 have a big picture on where we are with the
22 decommissioning process from Chief Nuclear Officer
23 Doug Bauder who is with us tonight. We'll have an
24 update on dismantlement work. We're going to have
25 a brief discussion about the sea level rise

1 question and its implication for onsite spent fuel
2 storage, so called ISFSI. That's a topic that
3 came up in earlier meeting, and we committed to
4 get back to the public on those assumptions and
5 particularly the extreme sea level rise
6 assumptions, and we'll have that information
7 tonight.

8 We'll have an update on the radiation
9 monitoring that has been done on the NUHOMS
10 outlook fence, so this is the horizontal storage
11 system, the original storage that's there.
12 There's been quite a lot of monitoring done on
13 that topic. Least but certainly the most
14 important tonight is an update from the experts on
15 the development of the strategic plan, and that's
16 a conversation we're going to begin tonight, and
17 it's going to continue on through the first
18 quarter of next year.

19 And the strategic plan just as a reminder
20 to everybody is a program that's going to layout
21 different options and approaches physical and also
22 political approaches to accelerate hopefully the
23 movement of the spent fuel from the ISFSI here at
24 San Onofre to safe, interim, and permanent
25 locations for its storage an disposal.

1 For the discussion during the
2 presentations if CEP members that would like to
3 ask questions, just unmute your microphone and
4 then I'll be able to see that and call on you when
5 there's a break, and if you don't feel seen, then
6 holler, and you'll be heard, and then I'll make
7 sure you get your question in.

8 There's a whole hour for public comment
9 and facilitated public dialog at the end. One of
10 the things we've done, although that's at end of
11 the meeting, we put a larger amount of time after
12 that so we can have some back and forth with the
13 experts that we have with us tonight on the
14 strategic plan.

15 So if we go to the next slide that is
16 welcome and opening comments, and I want to give
17 the floor first to Doug Bauder for any opening
18 comments that he may have.

19 DOUG BAUDER: Thank you, David. I will
20 be short. I would like to also reiterate your
21 message regarding COVID. We are definitely
22 sensitive to it here. I'll talk a little bit more
23 about that when I talk about safety. There's a
24 portion of that slide that I'll talk to our COVID
25 actions here at the station.

1 I too share your sentiment that, you
2 know, it's too bad we can't get together
3 physically but it is how it is. We'll dealing
4 with it. I think we're getting better with
5 dealing with questions in a real time fashion. We
6 got a template we're using for this meeting, and
7 we should be able to, I think, with everybody
8 remotely dialled in, be quite prompt in answering
9 questions at the point that they're asked or very
10 close to when they're asked.

11 That template is available to the public
12 as well to document whether somebody wants to
13 speak or ask the question, and we can be able to
14 get right on it. That's all I've got for opening.
15 Thank you.

16 CHAIRMAN DAVID VICTOR: Excellent. Thank
17 you very much.

18 I want to go to slide 4, and thank two
19 members of the Community Engagement Panel who are
20 retiring. First Rich Haydon on the left, an
21 action photo of Rich Haydon at one of our
22 meetings, action-packed meetings that we have, who
23 has been on the Community Engagement Panel since
24 the very beginning. He's served the public by the
25 state parks for 27 years, state park

1 superintendent for three local leaches, including
2 San Onofre since 2008. I want to really thank
3 Rich for his service to this panel.

4 Mark Riddlebarger who is the California
5 State Parks emergency manager and in the Orange
6 Coast District is going to fill in for Rich until
7 permanent replacement is found, and I want to
8 welcome Mark, who is with us tonight for his first
9 CEP meeting.

10 And on the right side Paul Wyatt who
11 chose not to run for re-election, he's been a
12 member of the CEP since 2016 representing the
13 people of Dana Point. One of his efforts in the
14 council there at Dana Point has been working to
15 prevent homelessness. He's been an extremely
16 valuable member of the CEP and I want to thank him
17 for his thoughtful contributions along with Rich,
18 and a successor to Paul will be determined in Dana
19 Point in January.

20 So I want to go now to --

21 DOUG BAUDER: David, if I could make a
22 couple comments here as well regarding especially
23 Rich, Rich's service to State Parks, but also
24 helping us coordinate activities at the site. One
25 of the thing we value is collaboration for beach

1 usage, which -- for which the access point is up
2 here in parking lot 4 and Rich has helped over the
3 years to do that to provide that flow and that
4 coordination.

5 Also more recently when we ship the unit
6 1 -- successfully ship the unit 1 reactor pressure
7 vessel off site, Rich was involved in helping us
8 with traffic patterns to make that successful and
9 also helped us with allowances for us to do the
10 engineering calculations with the heavy load path,
11 so thanks to Rich for that.

12 I echo your statements regarding Paul, so
13 thank you, Paul.

14 CHAIRMAN DAVID VICTOR: Just two opening
15 comments by way of process tonight. If you want
16 to submit questions and/or sign up for making a
17 public comment, you can click on that link there.
18 You can also go to the chat where you'll find when
19 somebody puts the information back in there,
20 you'll find the link, which is a simpler link
21 under item 2 here, if you want to sign up for
22 public comment, just fill in the question form
23 there, and we'll put you on the list. Questions
24 that were submitted in advance of this meeting via
25 the NUCCOMM e-mail address, the standard e-mail

1 address we have on songscommunity.com, those
2 questions are going to be addressed first,
3 answered, and then we'll go to the public comment
4 period as well.

5 Dan Stetson and Martha McNicholas are
6 going to review the comments and facilitate the
7 discussion. I want to thank them in advance for
8 doing that. I know that's a very complex task.

9 Go to slide 6, please.

10 DOUG BAUDER: Okay. Thank you, David.
11 Yeah, as I mentioned earlier I would speak a
12 little bit about the COVID-19 update for SONGS.
13 Once again we implemented a pretty strict pandemic
14 protocol at the station. We've revised it over
15 time. We had no person-to-person transmission at
16 work, but we have had cases where employees and
17 workers contract the virus, and then it's reported
18 to us and all those cases involve contracting the
19 virus outside of work.

20 We've had actually four new infections in
21 the last two weeks which somewhat mirrors the
22 increase of cases that we've seen broadly across
23 the state and the country. When we do get a case
24 we evaluate when we quarantine the employee or
25 employees' coworkers, what the effect on work

1 would be. Our primary focus is safety, and we
2 have done that in some cases, we have scaled back
3 or stopped particular tranches of work and
4 quarantined employees until we could verify
5 everybody was healthy through testing and we could
6 return back to work.

7 So that's what we're in now. We never
8 anticipated this would take -- we'd in the tenth
9 month of this, but we're ready to continue working
10 with our protocol and continue keeping safety top
11 of mind as we do that. And I'll just encourage
12 everybody to use the link songscommunity.com. We
13 provide a lot of updates on the website, much more
14 detailed information that goes out with the
15 community flyers.

16 Next slide, please. We're up to
17 community updates.

18 CHAIRMAN DAVID VICTOR: Yes, I think so.
19 Excellent thank you very much, Doug.

20 I want to pause for a moment and see.
21 I'm going to talk in a little bit about a couple
22 of items that have come in but I want to first go
23 to Dan and Martha and see if there's any items
24 they want to flag in terms of general community
25 updates, and then I'll go to CEP if there's

1 anything else that the members of CEP want to
2 mention.

3 Dan?

4 DAN STETSON: David, I don't have
5 anything at this time, thank you.

6 CHAIRMAN DAVID VICTOR: Okay. Thank you
7 very much.

8 Martha?

9 MARTHA McNICHOLAS: No. I'm looking at
10 some of the question that's were submitted prior
11 to the meeting, and it looks like most of them
12 have been answered in previous CEP meetings or
13 answers are on songscommunity.com. I wanted to
14 point that out to anybody who is submitting
15 questions.

16 CHAIRMAN DAVID VICTOR: Okay. Thanks.
17 Maybe what we can do is cluster some of those
18 questions when we get to the response period and
19 just identify what the nature of the questions and
20 where and how we're going to provide response to
21 those even though the questions may have been
22 addressed in earlier meetings and other places.

23 So thank you very much for that.

24 I want to pause for a moment and see if
25 any other CEP members want to provide any general

1 updates before we get into the full of our
2 meeting.

3 Okay. I don't see any microphones coming
4 off. If we could go to the next slide, please.

5 By way of awareness, three items here,
6 one is that our last CEP meeting there were some
7 questions regarding Native American cultural
8 resources at the disposal facility in Clive, Utah
9 that's where all, not all but most all of the
10 material from the site will be going. I visited
11 there this summer, and the answer to that question
12 is there was an investigation as part as the
13 environmental impact statement, and we put that
14 EIS online on songscommunity.com, and there's also
15 a link here. If you go to the meeting materials
16 for tonight's meeting, you click the link, it
17 should take you directly to that.

18 Similarly, we received a letter from Kris
19 Singh, who is the CEO of Holtec, clarifying
20 comments that were made at a 2014 CEP meeting, I
21 believe this was the workshop where a number of
22 issues were raised about the repairability of
23 canisters and so on. That's something I've
24 addressed multiple times in various ways, despite
25 continued misinformation about what was said in

1 the context of that. And Kris Singh felt
2 important to send a letter on that matter as well
3 and that letter is available online.

4 Last, we had at our meeting on outlier
5 events where there was a lot of discussion about
6 terrorist risks in particular. One of the
7 questions that came up with was whether the
8 Nuclear Regulatory Commission was continuing its
9 rule making process on changing or adjusting,
10 tightening perhaps rules related to security at
11 the ISFSIs around the country.

12 This may not be relevant to us because
13 the ISFSI here is already operating with its own
14 procedures that are tighter than the NRC rules and
15 we have a letter that came from Edison to the
16 Community Engagement Panel to help the public
17 understand that within the limits of safeguards,
18 within the limits of what you can talk about
19 publically because you don't want to tell the
20 enemies what you're doing.

21 So we wrote to the NRC, the NRC wrote
22 back to us a kind of lengthy complex letter that
23 says, in essence, they're still looking at it but
24 they're not sure what they're going to do, and
25 that letter is online. So I'm not sure you're

1 going to get profound insight from that letter.
2 But I'm grateful to the NRC for responding to our
3 inquiries.

4 I want to pause just quickly for a moment
5 and see if there are any other CEP questions about
6 this before we go to the first briefing on the big
7 picture on decommissioning at the site.

8 Not seeing any, I'm going to give the
9 floor back to Doug Bauder who is going to talk
10 about the big picture, macro picture of what's
11 happening at the San Onofre site.

12 Doug, the floor is yours.

13 DOUG BAUDER: Thank you, David and
14 Sanjay, if you could advance the slide please, and
15 then just go right through the next slide, if you
16 don't mind.

17 We talk about our decommissioning
18 principles at every meeting and try to tie that
19 back into our work. Safety is number 1. Safe and
20 prompt deconstruction, defense-in-depth for the
21 storage of nuclear fuel and then, taking actions
22 to relocate the fuel off site, and you'll hear
23 more about our strategic plan later tonight, in
24 fact, that's the main -- one of the main topics of
25 this meeting.

1 Next slide, please. So a couple of key
2 activities going on at the station, and you'll
3 hear Vince talk more about some of our key
4 decommissioning activities, first, we've been
5 successful in shipping enclosed rail cars with low
6 level waste off site. And we'll be shipping many
7 of these rail cars over the next several years.

8 And I want to reiterate again the
9 environmental benefit of doing that. It takes
10 about six trucks, six fully loaded trucks to equal
11 one rail car and so in addition to that, we
12 minimize the effect on the highway system and the
13 like. So we anticipate thousands of rail car
14 shipments over the course of the decommissioning
15 project.

16 We just started but we've been successful
17 in doing that. We will be expanding rail spurs on
18 the station so that we can improve the efficiency
19 of the shipments, and we're doing work inside and
20 outside the containment domes. Once again, Vince
21 will talk more about that later tonight.

22 With respect to the onsite storage of the
23 nuclear fuel, Ron Pontes will discuss sea level
24 rise as the follow up from the second quarter, CEP
25 meeting and Randall Granaas and Dr. Eric Golden

1 will discuss the results of the rad surveys that
2 we did on the NUHOMS system as you mentioned
3 earlier, and we had those performed by a third
4 party. That was actually a commitment I made
5 during the last CEP meeting to do those surveys.

6 Skype does not -- this Skype format right
7 now does not support video play back of the
8 surveys themselves, but the videos for the rad
9 survey are available through a link or SONGS
10 community website, so please I would encourage if
11 you want more information on those, to look at the
12 video.

13 And then regarding the strategic plan, we
14 have members of the North Wind team here to talk
15 directionally about the strategic plan to relocate
16 spent nuclear fuel, and then we'll bring them back
17 to the first quarter of next year to complete that
18 discussion as we complete the plan.

19 Sanjay, if you can advance the slide to
20 the next to number 12. Here we go. Thank you.

21 So every quarter we issue these quarterly
22 decommissioning updates, the flyer that goes out
23 to the community. We post the exact same
24 information to the website plus some. And we
25 spell out really what's going on at the station.

1 When I came back to SONGS, I committed to this
2 group that I would be very transparent and open
3 about what happens at the station, and my desire
4 to continue to do that. First what we care most
5 through decommissioning is worker safety, and
6 every quarter of the update we write about that as
7 our top priority, and this is true across any
8 industrial site, especially here in SONGS when
9 we're involved in detailed decommissioning
10 activity. We want all of our workers to go home
11 healthy and safe just as in the condition that
12 they arrived at work, maybe a little tired from
13 working but healthy and safe.

14 Earlier this week during an excavation
15 activity at the station, the excavating device
16 contacted an energized electrical cable. Based on
17 that event, we immediately halted the work.
18 Nobody was hurt but in looking at the event, we
19 see opportunities for improving our processes for
20 future excavating activities.

21 We are evaluating the event and applying
22 lessons learned to keep our folks safe while
23 they're on the job. So once again, no worker
24 injury but we stopped and we'll be sharing
25 information about this what we call a dig-in event

1 on the website and maybe in future meetings if
2 there's more requests about it.

3 Overall our industrial safety record at
4 SONGS has been strong, but it's an area where we
5 have to continuously improve. We recently posted
6 an article to our website on the critical safety
7 role of fire watching while we're doing hot work,
8 and hot work is work that involves cutting metal
9 mostly where you have to put up a lot of detailed
10 industrial controls.

11 So I would encourage folks that are
12 interested in that to take a look at the website,
13 and we have an article there about hot work, and
14 it's important to safely doing the work.

15 So once again, in these categories of
16 safety, we place a high priority and that includes
17 industrial, environmental safety, environmental
18 monitoring, and we'll talk a little bit more about
19 the detail of work that's going on at the station
20 tonight.

21 With that, I think I'll hand it over to
22 Vince. You're on Vince to dive right into the
23 work.

24 CHAIRMAN DAVID VICTOR: Let me just,
25 since Vince is getting started there I want to

1 mention these quarterly updates are very helpful.
2 I'm asked periodically to ask about our experience
3 in San Onofre in the Community Engagement Panel,
4 and I did it most recently, actually this morning
5 before a panel of the American Nuclear Society we
6 put together, and they had the members of the CEP
7 from Zion just north of Chicago, Vermont, Yankee
8 in Vermont surprisingly, and this is one of the
9 best practices that's emerging in the industry the
10 credibly important multiple ways of engaging with
11 the public and getting the information out there.

12 I also learned today that they have a
13 video flyover of what it looks like at the Zion
14 site to take the domes down and to complete the
15 dismantlement process, so we should get that and
16 figure out how we can get video privileges on the
17 Skype system so that we can show people these time
18 lapse what it would look like as the domes come
19 down and so on.

20 Let me give the floor to you, Vince, for
21 the decommissioning update.

22 VINCE BILOVSKY: Thanks, David. If WE
23 could go to the next slide, please. Okay. Great.

24 So looking at the major work streams for
25 the project, we started the first two on the list

1 here which the initial stages of component and
2 systems dismantlement. Right now most of that
3 work is happening inside the containment building
4 domes, and that work will continue for the next
5 four years until those buildings are empty. If
6 you look at the third line item earlier -- early
7 next year will start the demolition of some of the
8 peripheral buildings and I'm talking about those
9 that are outside of where the containment domes
10 are located.

11 And then later next year we'll start
12 dismantling the Turbine island, which is the
13 fourth line item there, and that's a high level
14 look at the schedule.

15 If we can go ahead and advance to the
16 next slide, please. Okay. Great. I'll mention
17 some of the specific activities that we recently
18 completed. First, is the removable of friable
19 asbestos cable in the central power block area.
20 We also removed several of the tendon cables from
21 the unit 2 containment building, and I'll talk
22 more about that later in a slide that has some
23 pictures. We've also extended the rail line so we
24 can get cars right up to the center of the plant
25 so we can load and ship out the waste. Now moving

1 down to the current activities. These are rather
2 broad but mainly we're doing a lot of things that
3 will give us more space inside the containment
4 domes and allow for better accessibility and we're
5 doing these things to prepare for the removal of
6 large components, like the reactor vessel, the
7 steam generators, and the big pumps.

8 So if we can go to the next slide,
9 please. As I mentioned earlier, we'll start the
10 demolition of the peripheral buildings early next
11 year, and these are the ones that are highlighted
12 in red on the top diagram.

13 The bottom picture, the red highlighted
14 area shows the location of the Turbine island.
15 That work will start later next year. And the
16 Turbine island has a lot of the big heavy
17 components that get dismantled first, so the
18 actual building structures won't be taken down for
19 a few years.

20 Now I've gone back to that top picture.
21 The administrative building is circled there. And
22 that will be one the first buildings to come down,
23 and if we go to the next slide, I'll explain why
24 and this goes back to something that Doug
25 mentioned earlier. If you look at the bottom

1 drawing there, that's a drawing of the plant and
2 if you look at their red square where you see the
3 green arrows pointing at the location there,
4 that's where the administrative building currently
5 stands and once that building is removed, new rail
6 tracks will be put in that space, and that's
7 what's shown on this drawing here.

8 Right now there's only one track coming
9 in to the plant, and so we're limited how many
10 cars they can get in and out. Adding new tracks
11 will allow us to stage more rail cars and increase
12 the volume of shipments that go out to Clive,
13 Utah. And on the top of this slide is a picture
14 of that first rail car that was shipped out a few
15 weeks ago.

16 So we're going to the next slide, please.
17 Okay. I mentioned the tendons earlier. These are
18 tension cables that embedded inside the
19 containment dome concrete. They go around the
20 sides of the dome horizontally and over the top
21 vertically. They existed as one of the design
22 safety features for operations. So in the absence
23 of an operating reactor they don't have any
24 function.

25 On the left picture, we're depicting a

1 transparent view of a containment dome, and it
2 illustrates where some of those tendons are
3 located. They're not all shown in this picture.
4 There's actually 204 tendons in each building.
5 Over on the right we see the inside of the gallery
6 where the vertical tendons terminate. That's the
7 location where the vertical tendons get cut and
8 pulled out of the containment building.

9 This is a major activity that we need to
10 perform before we can increase the size of the
11 building's opening, and that's because
12 detensioning of those cables needs to happen
13 before we can cut through the concrete and expand
14 the hatch. That's on each one of those
15 containment buildings.

16 If we can go to the next slide, please.
17 Okay. Here we are deep inside the middle of one
18 of those containment domes if you look at left
19 picture inside that red box is where the reactor
20 is located, you can see where there's a lot of
21 stuff around it. Those blue circles structures
22 are interferences, and they need to be removed so
23 there's enough space to get tools and crew inside
24 so they can cut up the reactor.

25 On the right side -- on the right is a

1 picture of the reactor head. It's a close-up
2 pictures, and that's inside the cavity where the
3 reactor it located. The head is the top part of
4 the reactor, and the reactor itself is not visible
5 here. I'll show it in a later side. It's just
6 below the head, and it goes down about 25 feet.
7 Currently this cavity area is dry, but it will be
8 flooded, and I'll show what it looks like in a
9 couple of slides. Let's see. So I think you
10 already advanced.

11 So we'll go ahead to the next slide here
12 the preparation for cut up of the reactor vessel
13 internals. This is showing some of the tools that
14 will be used to cut up the reactor internals,
15 which will all be done under water. All of this
16 equipment will need to be brought into each of the
17 dome buildings. This is showing a small portion
18 of the tools. There's actually quite a bit more
19 that needs to go in.

20 So let's go ahead and go to the next
21 slide. This is just a schematic that shows the
22 primary system piping and components. The reactor
23 is in the middle, and it's surrounded by the steam
24 generators and pumps, which are all connected by
25 large pipes. Right now we're in the process of

1 cutting all those pipes using a diamond wire saw
2 tool, and when we're done with that, we'll seal
3 them off so we can flood up the reactor cavity.
4 That way none of the water will be able to flow
5 into the rest of the primary system.

6 If we can go to the next slide, please.
7 So here is where the flooded up reactor cavity is.
8 This picture was taken about a decade ago during a
9 refuelling outage. This is what the reactor
10 cavity will look like when it's flooded up again
11 next year.

12 So in -- down in this you can see the
13 reactor without the head, and behind it is where
14 we're going to install all of that cutting
15 equipment that was shown in the previous slide.
16 All of the operations for cutting up the insides
17 of the reactor will -- it's going to be done right
18 there next to where you see the reactor, and if
19 you look inside you can see the glow from the
20 radiation inside the reactor. This was probably
21 taken soon after a shut down, so it was highly
22 activated at the time.

23 And I think we can move over to the last
24 slide, please. I want to make a quick comment
25 about work or radiation exposure. What we're

1 showing here is the federal occupational dose
2 limit, and that's NRC dose limit, which is 5,000
3 millirem. Here at SONGS we impose our own
4 stricter limit of only 1500 millirem.

5 Last year and this year not a single
6 worker has come close to that administrative limit
7 of 1500. We could extend it higher, but we don't
8 have the need and don't really see the need to do
9 that. The average worker and the average worker
10 being someone who goes into radiological areas on
11 a regular basis got less than 50 millirem last
12 year. I think it's close enough to the end of the
13 year this year that I can say with confidence that
14 that also be true for this year too, so the
15 average worker is receiving less than 50 millirem
16 of dose, which is very low.

17 So that's what I have for presentation
18 today, and I'll be happy to take any questions
19 from the panel.

20 CHAIRMAN DAVID VICTOR: Excellent. Thank
21 you very much. I want to see -- pause for a
22 moment and see if there are any questions before
23 we move on.

24 John Taylor.

25 JOHN TAYLOR: Yeah, Vince, I wondered

1 what's the purpose of flooding the reactor
2 chamber?

3 VINCE BILOVSKY: The reactor, the
4 internals, the insides of the reactor, the actual
5 reactor have a lot of activated components so
6 they're more radioactive than anything that's left
7 in the plant right now, so it's not a lot of
8 volume of material, but the water provides
9 shielding so when you're doing the operations,
10 you're not getting much of a radiation dose.

11 JOHN TAYLOR: And then later on will we
12 do a release like we did for the reactor water
13 that we did prior to this?

14 VINCE BILOVSKY: Yeah, it will be
15 filtered continuously, and it will be brought down
16 to acceptable levels, so just about all the
17 radiation and radiological particles will be
18 filtered out of the water.

19 CHAIRMAN DAVID VICTOR: Okay. Thank you,
20 do you have a comment, Vince, about how long the
21 releases will continue? Is that a matter of a few
22 years or can you give us a timeline?

23 VINCE BILOVSKY: I would hand that off to
24 Ron Pontes and ask him during his presentation, if
25 that's okay?

1 CHAIRMAN DAVID VICTOR: Ron, did you want
2 to talk about that right now?

3 RON PONTES: What was the question?

4 CHAIRMAN DAVID VICTOR: The question is
5 how long the batch releases will continue.

6 RON PONTES: We're expecting those batch
7 releases to continue for the water that we have on
8 board of the plant today and the water that will
9 be in these reactor cavities for the cut up to
10 continue to about 2024, IN that time frame. We'll
11 be finishing up all those releases by then.

12 CHAIRMAN DAVID VICTOR: Okay. Thank you,
13 thank you very much.

14 I'm not seeing any other questions from
15 the panel, so I'm going to go now slight
16 difference in order from the agenda that's in the
17 top of the slide deck we're going to hear from
18 Randall Granaas and Eric Golden now about the
19 monitoring of the horizontal storage system.

20 So I think, Randall, I'm giving the floor
21 to you.

22 RANDALL GRANAAS: All right. Thank you.
23 So I'll be presenting the first few slides and
24 then turning the presentation over to Dr. Golden
25 of our radiation protection group.

1 Next slide, please. So why did SCE
2 survey the outlet vents, so those of you who
3 watched the last CEP meeting probably already know
4 the answer. And for those didn't watch the last
5 meeting as a refresher during the August 20th CEP
6 meeting Donna Gilmore asked about a survey of the
7 outlet air vents of the NUHOMS dry fuel storage
8 modules. And from our website the contention is
9 the NRC and Southern California Edison continue to
10 refuse to provide the radiation levels from the
11 outlet or the rooftop air vents that aging AREVA
12 NUHOMS thin wall canister systems at San Onofre.

13 And the San Onofre canisters are only 5/8
14 inch thick and some are already 17 years old, what
15 are they hiding?

16 So I'll note that directly measuring the
17 outlet air vents is not necessary as surveying
18 area accessible from a ground level will identify
19 radioactive contamination in the unlikely event of
20 canister leakage, but as Doug mentioned earlier,
21 we decided to survey the vents to satisfy these
22 lingering questions and put to rest this
23 information or misinformation, sorry, about the
24 NUHOMS dry fuel storage system.

25 Next slide, please. So in this slide you

1 can see the location of the outlet vent on the top
2 of the storage module where warm air -- that's
3 correct -- exits the storage module after passing
4 over the canister.

5 Next slide, please. So this slide shows
6 San Onofre NUHOMS storage modules, and the single
7 module array is shown on the left in the
8 back-to-back module array is in the center, and
9 the array configuration determine how the outlet
10 vent was physically accessed as well as the
11 measured radiation levels at the vent.

12 And as you might expect the measured
13 radiation levels were higher for the back-to-back
14 module array for which two canisters share an
15 outlet vent. Also, the modules in the single row
16 have a little more radiation shielding.

17 The photo in the lower right corner shows
18 the final technics radiation protection technician
19 surveying the outlet vents for the back-to-back
20 module array, and for the back-to-back array an
21 outlet is used to access the roof.

22 Next slide, please. Okay. So the photo
23 in the top upper right corner shows the scissor
24 lift used to access the single module array outlet
25 vents. The top center photo in this slide shows

1 the technician surveying for loose radioactive
2 contamination, and if it looks like he's using a
3 mop similar to a dry mop used to clean a wood
4 floor, that's because he is. Surveying for loose
5 radioactive contamination is similar to looking
6 for dust or dirt that you can't see with the naked
7 eye, and similar to dust and dirt, loose
8 radioactive material can be spread when someone
9 walks through it.

10 And the two photos on the left the
11 technician is measuring radiation that penetrates
12 through the canister cell and concrete similar to
13 a chest x-ray, and similar to a chest x-ray, this
14 radiation can't be spread and decreases with
15 distance and shielding, and so now I'm going to
16 turn the presentation over to Eric to discuss the
17 survey results.

18 ERIC GOLDEN: Thank you, Randall.

19 RANDALL GRANAAS: You're welcome.

20 ERIC GOLDEN: Good evening, everyone.
21 I'm Eric Golden. Randall has done a great job
22 describing the NUHOMS modules and the design and
23 how the survey was conducted. I would like to go
24 through some of the results of this survey and
25 hopefully describe what the results mean for us.

1 The first slide shows a portion of a table because
2 the surveys were conducted on every single one of
3 the 51 NUHOMS modules, and the survey was used
4 meters that can measure down to background levels,
5 environmental levels of radiation and also used
6 meters that can assay for airborne radio activity.

7 And as Randall described, there was also
8 an assessment done at each outlet vent for
9 contamination. I would like to point out that the
10 difference between radiation and radioactive
11 contamination is that radiation is the energy
12 emitted and contamination is the radioactive
13 material where it's not wanted.

14 So you survey for radiation and that
15 tells you what is being emitted from the canister
16 and contamination might be any indication of
17 airborne radioactivity or material that has
18 leaked.

19 The next slide shows the outlet vents,
20 and the technician surveying, and these are the
21 results from the outlet vents. You can see that
22 the single row of modules that Randall described
23 the radiation levels were from .04 to .06 millirem
24 per hour at the outlet vents.

25 The double row ranged from .05 to 0.3

1 millirem per hour, and that's because the double
2 row has essentially twice as much of a source.
3 There's back-to-back canisters and so slightly
4 less shielding due to the adjacent air outlet
5 vents, so you get higher dose rates on the double
6 row modules.

7 Inlet vent readings are also quite low,
8 but they're higher than the outlet readings
9 because of the design of the system, and there's
10 greater shielding at the outlet vents. There was
11 no contamination found on any of the 51 outlet
12 vents, which indicates that there has never been
13 any leakage from the canisters, and there is no
14 indication of any airborne radioactivity at any of
15 the 51 modules.

16 The next slide shows a survey that's done
17 every quarter of the NUHOMS system, the inlet
18 vents and actually the whole area in front of the
19 NUHOMS modules. The radiation levels at these
20 inlet vents range from about .2 to .85 millirem
21 per hour and no contamination has ever been
22 detected on these modules. The levels are low
23 enough such that a radiation area posting is not
24 required according to federal regulations and this
25 quarterly survey, if you can see it, in blue the

1 handwritten readings are actually in micro rem per
2 hour which is 1/1000 of a millirem per hour,
3 that's why it looks like a higher number.

4 The next slide, please. Okay. In
5 addition to the quarterly surveys. There is a
6 monthly survey of the fence line around the entire
7 ISFSI facility both this NUHOMS system as well as
8 the newer Holtec pad, and the results of the
9 monthly surveys show that the spent fuel does not
10 contribute to any radiation exposure toward any
11 place where a member of the public could go.

12 The numbers are, as you can see in the
13 table, about 0.01 millirem per hour at any
14 publicly accessible boundaries, and background in
15 the San Onofre site along the beaches around this
16 part of Southern California is about 0.01 as well,
17 so the conclusion is that there is no increase in
18 the radiation exposure due to the presence of all
19 the spent fuel storage.

20 I point out that the federal limit for
21 members of the public is 25 millirem per year.
22 That's an EPA limit above background and our
23 annual reports show less than 1 millirem per year
24 so we're way, way below the federal limits.

25 The next slide is just a reminder, if it

1 comes up. There you go. A reminder that there is
2 a continuously operating radiation monitoring
3 system at the ISFSI with three monitors within
4 strategic locations of the ISFSI pads, and a
5 control monitor that's some distance away so that
6 you can make comparisons between the radiation
7 levels in the facility, and outside the facility,
8 and reports are published monthly by the
9 California Department of Public Health
10 Radiological Health Branch, and you can access
11 those. Their link is on that slide and see what
12 the radiation levels are, and note that there are
13 no trends upward or anything untoward.

14 And there's a lot of additional
15 information on that website that's provided on the
16 slide.

17 That's all I have. I can hopefully
18 answer any questions that are raised. Thank you.

19 CHAIRMAN DAVID VICTOR: Excellent. Thank
20 you very much. I want to see any of the CEP
21 members are questions or comments right now and
22 also want to thank our friend Gene Stone, a former
23 member of the CEP, for help getting this system
24 real time monitoring up and running. It's now
25 happening.

1 Ted Quinn, the floor is yours.

2 TED QUINN: Sure. I wanted to ask
3 Randall and Eric if the configuration of the
4 canisters with the vent, there's no mode of force,
5 so it's just natural circulation, right, the way
6 it would work on the airflow?

7 RANDALL GRANAAS: Yeah, Ted, it's
8 Randall, that is correct, no forced air, all
9 natural convection.

10 TED QUINN: Great, thanks.

11 CHAIRMAN DAVID VICTOR: Ted, any other
12 questions? You got --

13 TED QUINN: All set.

14 CHAIRMAN DAVID VICTOR: Let me go to John
15 Taylor, please, floor is yours.

16 JOHN TAYLOR: I wanted to ask you
17 mentioned that the ISFSI monitoring is done
18 quarterly. Have these reports been available to
19 the public, and if so, I would wonder we wouldn't
20 have Donna Gilmore being so -- putting out
21 misinformation if those reports were available.
22 Is that -- can you address that, please?

23 ERIC GOLDEN: I'll take a crack at that,
24 the survey -- the surveys themselves are not
25 publically available. However, San Onofre

1 Southern California Edison publishes an annual
2 radiological environmental operator report.
3 That's quite a mouthful, but it's the AREOR, and
4 those reports are publically available. The most
5 recent ones are on the SONGS community website and
6 the older ones are available on the NRC's website,
7 and within that report you can find survey data
8 that reports annually what the radiation exposure
9 levels are around the ISFSI as well as other
10 locations around the site and in the local
11 community.

12 RANDALL GRANAAS: Eric, I can also add
13 that the NRC surveys when they come out, sometimes
14 they bring their own meters and those are in the
15 public reports published by the NRC.

16 CHAIRMAN DAVID VICTOR: Okay. And then
17 I'm not seeing any questions from the CEP. I
18 wanted to just ask one question as we move on,
19 which is can you comment on the worker safety
20 issues related to doing these kinds of surveys.
21 This is not -- you don't just walk up to the roof
22 of the NUHOMS system, so what concerns do you have
23 about worker safety doing these kinds of surveys?

24 RANDALL GRANAAS: Yeah, this is Randall.
25 So generally it does add a certain amount of

1 industrial safety because that roof is about
2 20 feet high, so typically we would rather not go
3 up there any more often than we need to perform
4 these surveys. Again, it's 20 feet off the ground
5 and it's a certain amount of industrial risk
6 that's introduced.

7 CHAIRMAN DAVID VICTOR: Okay. Thank you,
8 Randall Granaas and Eric Golden, thank you very
9 much for your comments.

10 I'm going to move on in the interest of
11 time to Ron Pontes who's going to talk to us about
12 two issues, one related to trace radioactive
13 contamination at the unit 2 outfall and one about
14 the sea level rise assumptions.

15 Ron, the floor is yours.

16 RON PONTES: Thanks, David. If we can go
17 to the next slide. There's an image there that
18 showing where we found some trace contamination in
19 late August. I did receive a number of e-mails in
20 the September time frame from folks that were
21 curious what was going on with batch releases
22 because they had seen a number of them in the
23 August time frame, and I think they thought we
24 were making batch releases and not reporting it.

25 Well, look what happened was we found

1 this small amount of contamination here on the
2 unit 2 outfall in late August and considering
3 where we made -- this is where we made batch
4 releases when we were operating the plant. We don't
5 really think this is uncommon. And we do know
6 from talking to other plants that this is similar
7 to radioactive in their systems too. It's
8 generally about the same through other nuclear
9 power plants.

10 So we found this contamination, and we
11 wanted to take some actions to confirm that our
12 systems are operating properly, so what we did was
13 we temporarily suspended our batch releases, and
14 we performed sampling in this area, sampling of
15 the water, and what we wanted to confirm was that
16 we were getting really good mixing of our dilution
17 water with the batch releases that we were making,
18 and then once we were able to evaluate the sample
19 results, we restarted batch releases and, you
20 know, just want to remark that we continue to make
21 them, and they're safe and well below regulatory
22 limits.

23 So I just wanted to make sure that
24 everybody understood why we had that little pause
25 in the batch releases during that period of time.

1 CHAIRMAN DAVID VICTOR: Let me just
2 before you go onto sea level rise, see if anybody
3 has any questions about this. Maybe you could
4 just say I'm still a little puzzled, where did the
5 trace contamination come from?

6 RON PONTES: Yeah, that's a good
7 question, David. It's on -- where we saw this
8 contamination was on the deck above the outfall,
9 so below that deck is where the water would return
10 to the ocean when we were operating the plant.
11 Today that area there is largely stagnant except
12 for tide fluctuations, and our dilution pumps are
13 a little bit below that towards the bottom of the
14 photograph along the sea wall. So we were a
15 little bit concerned that you know that water
16 wasn't mixing very well and maybe it was
17 concentrating back there.

18 To get to your question, there's grading
19 on that deck where there are -- well, there's
20 grading on that deck where there's these big
21 components that we use to block the flow of water
22 during -- when we're operating the plant, and it's
23 up to that grading where this contamination came
24 and arrived on the deck there.

25 CHAIRMAN DAVID VICTOR: Okay. Let me

1 pause and see -- Doug, I see you have your
2 microphone on, did you want to say something about
3 this? Okay.

4 DOUG BAUDER: I was going to reiterate
5 what Ron said. We think this was actually formed
6 during operation of the plant. We were very
7 careful -- took a careful approach to out sampling
8 here to make sure we had, as Ron mentioned, good
9 mixing.

10 It's basically the title action that
11 moves the -- some water and some debris up into
12 this area, so we found this very small trace
13 amounts through samples, and we wanted to validate
14 that we had good mixing. It was actually a
15 concern I had when we first identified this to
16 make sure that when we do our discharges, we get
17 the full effect of our dilution system and we did
18 validate that. So we thought it was important to
19 share that here.

20 RON PONTES: Okay, David, can we move on
21 or --

22 MARTHA McNICHOLAS: I have a question.

23 RON PONTES: Sure, go ahead.

24 MARTHA McNICHOLAS: Okay. Back up a
25 little bit. So you're thinking this has been

1 there for a while, as in back when you were
2 actually an operating plant and just recently
3 discovered it?

4 RON PONTES: No. Let me try to explain
5 that a little bit better.

6 MARTHA McNICHOLAS: Okay.

7 RON PONTES: Okay. So below this deck is
8 the ocean, okay, so to speak and a basin. And
9 that water moves up and down against the concrete
10 walls that are below that deck. And remember I
11 mentioned that this is where we made discharges
12 while we were operating. So what's happened is
13 some of that radio activity was flushed out while
14 we were operating, some of it dries out on the
15 walls of the concrete, okay, at the water line so
16 it's like a bathtub ring.

17 MARTHA McNICHOLAS: Okay.

18 RON PONTES: So that's the situation, and
19 it's really very, very low levels of
20 contamination. Once later in the decommissioning
21 those areas are going to be emptied out of water,
22 and that contamination will be cleaned up by SDS,
23 and that area will be completely surveyed and
24 free-released basically.

25 MARTHA McNICHOLAS: The other question is

1 when you say "very small amount," can you quantify
2 that?

3 RON PONTES: Yeah. So where we found
4 that that particular contamination there it was
5 about 300 to 400 counts above background. So, you
6 know, if I can equate to that something that the
7 laymen might understand if you table salt like
8 that people use, like potassium chloride, not
9 sodium chloride, but potassium chloride maybe part
10 of the teaspoon of potassium chloride would give
11 you a count rate of somewhere of what we saw here.
12 It's really low.

13 MARTHA McNICHOLAS: All right. Thank
14 you.

15 CHAIRMAN DAVID VICTOR: Thank you very
16 much.

17 Let's talk about sea level rise, because
18 we're really running pretty late here and I want
19 to make sure that essence of what you're going to
20 convey about the sea level rise and the monitoring
21 of groundwater is conveyed. So, Ron.

22 RON PONTES: All right. Thanks, David.
23 This is actually a pretty interesting topic, in my
24 opinion. You know, there is a lot of concern here
25 in California and other coastal areas about sea

1 level rise and there's been a lot of questions
2 asked about sea level rise relative to San Onofre.
3 A lot of these questions came up recently in the
4 second quarter CEP meeting that you mentioned
5 earlier, David. I do want to tell you that we are
6 assessing and reporting the impact of sea level
7 rise using a California Ocean Protection Council
8 sea level rise guidance, and that was most
9 recently updated in 2018, and it was adopted by
10 the California Coastal Commission I think in 2019.

11 So that's the measure that we're using.
12 That describes the different family of sea level
13 rise scenarios or projections out into the future.
14 Now the -- on this slide here, I kind of get to
15 the bottom line really quickly. We really look at
16 three major things: One is the revetment and
17 you'll know that as the rip-rap or the big
18 boulders along the sea wall. That's in good
19 condition, and we know that it will withstand even
20 the extreme sea level rise scenarios through at
21 least 2050.

22 We also studied the beaches. We wanted
23 to know what they were doing in terms of width,
24 whether they're getting larger or smaller and how
25 they're behaving over time. And we know that they

1 narrowed to their pre-construction widths. I'll
2 talk about that more later.

3 Finally, the last bullet here seems to
4 have most folks interest, and it is where is sea
5 level in the groundwater on the site relative to
6 the bottom of the ISFSI foundation, the Holtec
7 ISFSI foundation. And we're able to confirm that
8 the groundwater table, that it remains above the
9 groundwater table through 2050, even considering
10 those most extreme sea level rise scenarios.

11 So I'll dive into each one of these as we
12 go through the slides. Let's go to the next
13 slide, 38, please.

14 Okay. So the requirement for this
15 monitoring that we're satisfying here comes from
16 the lease that we signed with the California State
17 Lands Commission. And that lease is lease
18 provision 14, and it requires us to prepare an
19 annual report to assess sea level rise
20 vulnerability to the site, structural integrity of
21 the site, the adaption capacity for the SONGS site
22 based on what I addressed in the earlier slide;
23 Ocean Protection Council medium high and H plus
24 plus extreme sea level rise scenario.

25 So let me just pause here for a minute

1 and explain what those are. That medium high sea
2 level rise scenario is a very low probability sea
3 level rise, you know, in the future. It has like
4 a 5 percent probability of occurring, and the H
5 plus plus it doesn't have any probability assigned
6 to it, and it's the most extreme sea level rise
7 projections, and, you know, through 2050 on that H
8 plus plus it's something less than -- little bit
9 less than 3 feet of sea level rise through 2050.

10 We combined those with annual and
11 20 years and 100-year storm events as well as King
12 tides, and we also are required to monitor
13 groundwater elevation, and we were doing that
14 anyway, we're taking a quarterly groundwater
15 elevation data here on site, so we're now able to
16 collect that data and use it for this report.

17 Next slide, please. So we prepare these
18 report annually. We give them the California
19 State Lands Commission. We post them on a SONGS
20 website I know the Surfrider Foundation does study
21 these reports and others are welcome to look at
22 them. They're kind of dense. They're very
23 technical, but there's a lot of information in
24 there if you care to look at them. We published
25 our first report earlier this year in the first

1 quarter. I don't recall the exact date that we
2 published it. And it assesses those three things
3 revetment stability, seasonal beach profile
4 changes, and groundwater elevation. Let's go to
5 the next slide.

6 So the revetment or the rip-rap, if you
7 look on that photograph on the right on the lower
8 side there, you'll see overhead view of the SONGS
9 site, and you'll see a lot of red lines along the
10 coast line, each one of those is a transect that
11 was measured to understand to measure the
12 basically the revetment or the rip-rap.

13 So performed the laser scan survey of
14 that entire area to produce a digital elevation
15 model. We looked at these 21 transects and
16 compared the historical data that we had.
17 Literally measured the rocks to produce detailed
18 estimations of their weights. So spent a lot of
19 time with folks measuring the rocks so they can
20 calculate the weight of the rocks.

21 And then the revetment stability
22 calculated based on the measured data and all
23 these parameters, you know, the sea level rise
24 that I mentioned earlier, all the way from 2020 to
25 2050. And the bottom line here is that rip-rap

1 and revetment is in very good condition. The
2 rocks are in sufficient size and weight that will
3 withstand, you know, the pounding of the ocean and
4 the waves on those even with the sea level rise
5 for those scenarios through 2050.

6 So if we can go to the next slide. Now
7 we're on slide 41 so back in 2017 is we started
8 getting into the decommissioning and studying and
9 wanting more information about what was happening
10 along the beach front. We decided to start doing
11 the beach profile surveys every season so four
12 times a year. This became a requirement in that
13 at least provision 14.

14 So in this -- for 2019 in the report that
15 we just published earlier this year, that was
16 based on 12 seasonal surveys through October of
17 '19. Like the other study for the revetment, in
18 this case there's seven transects that we look at
19 and we use standard survey methods, you know, a
20 transit on shore and the digital acoustic echo
21 sounders for off shore. The scientists take all
22 that data and combine it on a laptop, and they
23 produce these images like you see here on the
24 bottom, so we can see what the profile is at the
25 beach and know what the width of the beach is, and

1 then we compare all that to historical data. And
2 there's a lot of historical data for the San
3 Onofre Beach. This is one of the most studied
4 beaches in California according to the folks that
5 I talked to that have worked on this.

6 We can see what the seasonal cycles and
7 the long term trends are for the width of the
8 beach.

9 If we can go to the next slide, please.
10 So what's interesting about San Onofre -- first
11 I'll tell you, I first came to San Onofre for a
12 short time back in the early 1980s and 1982, and I
13 remember I was working on unit 1 at the time, and
14 I remember the beach was quite wide then and that
15 was because at that time we still had this big
16 offshore pad built, you know, for the construction
17 of units 2 and 3. That offshore pad caused sand
18 to pile up on the north side and really make some
19 wide beaches there.

20 And then when the pad was removed that
21 sand dispersed to the north and south but mostly
22 flowed south, and over time it was swept away by
23 the ocean and beaches returned to their
24 pre-construction width. So that's why for folks
25 that had been around here for a long time they

1 probably reflect on it and notice the beaches have
2 gotten a lot narrower today than they were many
3 years ago.

4 Then we -- based on these studies that
5 we've been doing recently, we know that the
6 seasonal beach width fluctuates about 26 feet so
7 throughout the season or throughout the year.

8 And then if you look above the photograph
9 on the bottom, you'll see a chart that that shows
10 the width of the beach compared to time, and you
11 can see what it looks like and during that time
12 when that pad was there it really built up and got
13 really wide.

14 Okay. We can go to the next slide. So
15 groundwater elevation monitoring, so there's a
16 number of wells located throughout the site that
17 we do measure every quarter as I mentioned, we
18 took that data and we trended it against title
19 data that's in this report. You'll see a lot of
20 information in the report comparing the time of
21 day and day that we took the data to what the
22 tides were at that time.

23 Then we assigned all those wells were
24 broken into three categories; groups 1, 2 and 3.
25 And if you look at the photograph on the left,

1 you'll see an arrow pointing up to where those
2 group 1 wells are. They're really between the
3 where the ISFSI is and the sea wall, and so they
4 occupy an area of the property that's very, very
5 low and very close to the ISFSI so that's -- those
6 wells are very good to use to understand where
7 groundwater is relative to the ISFSI facility.
8 Let's go to the next slide.

9 So this is an image that was put together
10 by one of our engineers. You won't find this
11 particular image in a report but this is a better
12 way to see what's going on. On the left you'll
13 see two datums. That's just so that I can explain
14 that regardless of which datum you pick the delta
15 between the groundwater level on site and the
16 bottom of the ISFSI is always the same.

17 Here at the site all the elevations at
18 the site are based on mean low, lower water level.
19 That was what was chosen by the designer or
20 constructor of the site from the beginning so
21 we've always used that reference. And then the
22 other datum is NGVD to supply that. That's a
23 datum that's been used since 1929 to measure, you
24 know, flood levels and so on and sea level. So
25 you can pick either one of those datums to use.

1 And then on the right-hand side you'll
2 see in blue at the bottom groundwater level in
3 2019, that's the measured groundwater level today,
4 and then you see that gray at the bottom of the
5 gold or orange cylinders that represent the CECs
6 for the fuel, that gray is the bottom foundation
7 pad for the ISFSI, and that's three foot thick,
8 okay.

9 So today we have about 3.35 feet
10 nominally between the groundwater level and the
11 bottom of the ISFSI. Now over time we expect that
12 that groundwater level is going to rise. Now we
13 don't know how fast it will rise because we don't
14 know exactly what track we're on with those
15 forecasts that are in the LPC 2018 guidance, but
16 we're required to look at this for the medium high
17 risk, which is at really low probability, and the
18 extreme risk scenario the H plus plus.

19 So looking at either one of those there's
20 still some space between the water level and the
21 bottom of the pad. You know, it would vary
22 somewhere between 1.3 feet and about a half a foot
23 now through 2050, so that's the present
24 projections.

25 Now as we go forward in time and those --

1 that OPC guidance is updated and adopted by the
2 state, these projections may change. So as we go
3 forward, and we do these annual reports, we'll
4 always be using the current state information that
5 we're required to use.

6 Then the other thing I want to mention is
7 there is a lot of concern that, you know,
8 eventually the water level does get close to the
9 bottom of the pad, but even if it were to -- even
10 if the bottom of the ISFSI were to be submerged in
11 the groundwater, we don't see that as a concern
12 for a couple of reasons.

13 One is the fuel storage canisters are
14 located on top of the pad, and that pad is three
15 foot thick so water would have to rise quite a bit
16 to get up to the canister level. The concrete on
17 that foundation pad is sufficiently thick to cover
18 and protect the foundation pad reinforcing steel,
19 so that bottom pad is three foot thick is filled
20 with steel rebar, and but it's got sufficient
21 cover on it to protect it from the intrusion of
22 water driving into the concrete.

23 Now if it rose even further, let's say it
24 rose above the pad, I want to remind people that
25 our ISFSI here is embedded in a concrete matrix

1 that's basically around all those cylinders, and
2 it's more than 15 feet from the edge of the ISFSI
3 to the first cylinder for CEC. So that's quite a
4 bit of concrete.

5 And that particular concrete doesn't have
6 rebar in it. The way we built that concrete, the
7 lean concrete that was put around the CECs was
8 came up in lifts, and each one of those lifts, you
9 know, we bring in concrete trucks, we would pour
10 the concrete and it would bring it up in two,
11 three, maybe three and a half foot lifts. And
12 then the concrete would cure, we would scour the
13 top of the concrete to roughen in up, and then put
14 a bonding agent on, and then pour the next lift,
15 and we did that over and over again until we
16 filled the whole thing up.

17 So it's a very secure concrete mix that's
18 there at 5,000 PSI concrete. It's very unlikely
19 that the water would get into the CECs. Remember,
20 it has to go through 15 feet of concrete. I think
21 we did a darn good job of building that pad out
22 and installing the concrete there.

23 But even if it did, as a reminder, the
24 CEC is made of stainless steel, and inside that
25 stainless steel cylinder is where the fuel is. So

1 the water is not going to get to the canister
2 itself.

3 So that's basically what I wanted to
4 present here. I think there might be one more
5 slide to summarize again what I said at the
6 beginning. The revetment is in good condition and
7 the beaches fronting SONGS have narrowed and one
8 thing I'll just remind you of we've been kind of
9 in a drought since the early 2000s and that dry
10 weather has caused the beaches to narrow even more
11 because they're not getting any sand supply from
12 the rivers and creeks that feed the ocean.

13 And even considering that most extreme
14 sea level rise scenario, the H plus plus, the
15 foundation pad remains above the water table
16 through 2050. We'll update this as the guidance
17 is updated and as we study what's really happening
18 with the groundwater elevation, and we'll continue
19 to report out annually on that.

20 So, Dave, that pretty much concludes my
21 presentation here.

22 CHAIRMAN DAVID VICTOR: Excellent. Thank
23 you very much.

24 So I wanted to see if anybody has any
25 questions or comments from the CEP before we go

1 onto the strategic plan. I'm not seeing --
2 Elizabeth Helvey?

3 ELIZABETH HELVEY: Yes, I'm here.

4 CHAIRMAN DAVID VICTOR: Did you want to
5 say something?

6 ELIZABETH HELVEY: No, huh-uh. I'm
7 sorry, if it showed I did, that was inadvertent.

8 CHAIRMAN DAVID VICTOR: No, no. If you
9 take your -- the only way I can tell what's going
10 on is by looking at the microphones.

11 Let me just say, Ron, thank you very much
12 for this. I think it would be helpful if we were
13 to pull out the -- on this topic of the sea level
14 rise and also on the topic of the monitoring
15 that's been done on the NUHOMS and then real time
16 monitoring systems, if we were to pull those
17 slides out in a separate document PDFs along with
18 links to the relevant parts of the -- relevant
19 parts of this video so that when people go to
20 songscommunity.com, and they have questions about
21 sea level as many people should, because sea level
22 rise is a significant part of climate change, they
23 can go immediately and see what's going on and see
24 the analysis that's been done against the most
25 extreme versions -- extreme scenarios of sea level

1 rise, the H plus plus from the Coastal Commission,
2 so I think that will be very helpful in packaging
3 the information and kind of smaller chunks rather
4 than these hundred slide decks.

5 I want to move on now and talk about the
6 strategic plan if we can go to the next slide.
7 And I want to remind everybody that this is a
8 breakdown that's going to be done today from a
9 team of experts that has briefed us before on when
10 they were beginning their work -- if we could back
11 up to slide 46, please -- when they were beginning
12 their work, and they were going to provide us with
13 an update today, and then we already invited them
14 back to the first quarter of next year when the
15 plan is complete. It will have already been
16 discussed with public officials and a variety of
17 other key stakeholders to have a fuller discussion
18 so they can give us some contours of what they're
19 thinking right now but not the full thinking
20 because the work is still in progress.

21 And I'm going to ask Manuel if you have
22 any other comments and also for you to help
23 introduce those speakers tonight.

24 MANUEL CAMARGO: Thank you, David. So
25 I'll just go to the introduction piece and make

1 sure we have preserved time to help the experts
2 help deliver the content. I think is most folks
3 know we do have a large team of experts helping us
4 with a variety types of expertise. Tonight we do
5 have four of those folks with us. Included
6 tonight we do have Tom Isaacs.

7 Tom Isaacs plays a couple of different
8 roles. He is an advisor to SCE on spent fuel
9 management but his background really is more than
10 30 years in spent fuel management. He served as
11 the senior advisor to the Blue Ribbon Commission
12 on America's nuclear future, we've talked about,
13 and we've had guest speakers from that Blue Ribbon
14 Commission on prior CEP meetings. And then at
15 present in addition to advising the SCE, he also
16 advises the Canadian equivalent to the department
17 of energy, the Nuclear Waste Management
18 organization in Canada. So we have a Tom Isaacs.

19 We have also have Joe Hezir. Joe Hezir
20 is with EJM, that is a subconsultant to the North
21 Wind team and among his background Joe was a chief
22 financial officer and a senior advisor to the
23 secretary of energy, Secretary Moniz when he was
24 running the Department of Energy. So we have Joe
25 with us today.

1 As well we have Brian Gutherman. Brian
2 Gutherman is with the North Wind team, and his
3 background 30 so years of experience in NRC
4 regulatory affairs.

5 And then finally rounding out the team
6 for tonight any way, is Elizabeth Helvey.
7 Elizabeth Helvey she her background is in
8 stakeholder engagement around spent fuel
9 transportation. She has more than 20 years in
10 that sector and also experience with the
11 Department of Energy.

12 So in addition I should say that the
13 North Wind team is also the entity that is writing
14 the strategic plan. With that, I will turn it
15 over to Elizabeth and her team to take us over the
16 content.

17 Thank you, David.

18 ELIZABETH HELVEY: Great. Thank you,
19 Manuel. I would like to thank the CEP members for
20 inviting us tonight to give this presentation on
21 the strategic plan. My colleagues at North Wind
22 and I we really look forward to sharing this work
23 that we have been doing for the last year and a
24 half.

25 As Manuel said the work is not complete,

1 but I think it's important to give an update on
2 our progress and make ourselves available to
3 answer questions from the audience and the CEP
4 members. We know from our conversations in the
5 community that several folks are very interested
6 in this work or anxious to see it completed.
7 We're hopeful that tonight's presentation will
8 begin a productive conversation about potential
9 paths forward to find a site to take the fuel off
10 site from SONGS.

11 So if you would go onto the next slide,
12 please. I would just like to briefly go over the
13 topics that we're going to be discussing tonight.
14 You can see we're going to talk just a little bit
15 about how we got into this position both SONGS and
16 many other facilities around the country of having
17 no position, no place to take the spent nuclear
18 fuel. We'll discuss briefly some the alternatives
19 we've examined and some of the initial findings
20 that we have from those that we've reached, and
21 then we'll look at next steps and timing for the
22 release of a strategic plan.

23 Those are the topics we'll cover tonight.
24 We hope that this is useful information, and we
25 look forward to your questions. And with that,

1 I'll turn it over to Joe Hezir to present our
2 material, Joe.

3 JOE HEZIR: Thank you, Elizabeth.

4 If we go on to the next slide just a
5 brief historical context where federal government
6 policy now for the -- that goes back half a
7 century is that the federal government would
8 assume responsibility for disposing of spent
9 nuclear fuel and most of that -- during most of
10 that time the congress has focused that effort on
11 creating a disposal facility in Yucca Mountain.

12 I think everyone sort of knows the
13 history of what's happened there, so I won't go
14 through all these details but other than simply to
15 point out that if you go back over the last
16 decade, we've now gone a decade where basically
17 the Yucca Mountain project has been halted and
18 basically deconstructed and at the same time the
19 Department of Energy program for managing spent
20 nuclear fuel has been defunded and disbanded. It
21 Frankly just doesn't exist right now.

22 So we also have a situation where at
23 least at the leadership level both parties,
24 there's not an interest in pursuing Yucca Mountain
25 any further as the means of disposal of spent

1 fuel. So currently we started off the strategic
2 planning process from the starting point where
3 there is currently no offsite facility that can
4 accept spent nuclear fuel from SONGS.

5 So if you go on to the next slide that
6 notwithstanding where we are in terms of the fact
7 that we don't currently have an operating
8 facility, we do have a number of legislative
9 attempts to try and res tart a new program. The
10 other good news about it is that the members of
11 the California Congressional Delegation in both
12 the senate and the house have really actually been
13 leaders on both houses in trying to move forward
14 with legislation.

15 The problem is that we've had several
16 different approaches and we have yet to really
17 come to a consensus. I won't go through all these
18 details but simply to point out that the Nuclear
19 Waste Administration Act that Senator Feinstein
20 has been a co-sponsor of would establish a whole
21 new organization, a new funding process and a
22 consensual process for siting new facilities both
23 storage and disposal.

24 By contrast we've had bills in the house
25 led by Congressman McNerney and Senator Barrasso

1 on the senate that was -- that would attempt to
2 force the resumption of the licensing process for
3 Yucca Mountain, and then more recently we've had
4 some action by the house to pass the Clean Energy
5 Economy Jobs and Innovation Act that would say
6 let's spend -- let's invest the half billion
7 dollars over the next five years and let's look at
8 a variety of new approaches and new research
9 around development for how we might store use and
10 dispose of spent nuclear fuel.

11 Then last but not least we have an
12 attempt right now in congress to enact an
13 appropriations bill for fiscal year 2021 that
14 would attempt to put more money into the DOE to
15 restart a program on interim storage. The house
16 bill has \$20 million, that bill has been passed by
17 the house and just last week it's not shown on the
18 slide, the senate introduced a bill that has 27
19 and a half million dollars with similar language
20 and so to the extent that congress can come
21 together on a spending package for fiscal 2021, we
22 actually might be able to see some new moneys
23 appropriated to begin work at the federal level on
24 interim storage.

25 So if you go to the next slide, what has

1 happened particularly over this past year now
2 during the period of time while we've been working
3 on the strategic plan it's not been a period where
4 things have been static. After three years of
5 supporting a resumption of the licensing for Yucca
6 Mountain early this year President Trump instead
7 sent a committed to respect Nevada's opposition
8 and instead wanted to explore innovative
9 approaches.

10 I would simply add, it's not on this
11 slide, that the former Vice President Biden when
12 he was running in the Nevada primary earlier this
13 spring also said that he opposed proceeding with
14 the Yucca Mountain repository, so we could
15 probably anticipate that the incoming
16 administration will also take that position.

17 Also, what's happened over the past year
18 as we've had the governors of New Mexico and Texas
19 have written letters opposing consolidated storage
20 in their states. There are sites in both states
21 that are going through the NRC licensing process
22 and while the NRC will take their views into
23 consideration, the states do not have a veto power
24 or could not block an NRC license, but they can
25 impose impediments to implementation, and I think

1 those are very important consideration in our
2 analysis.

3 But we also will point out to you that
4 over time circumstances have changed with respect
5 to state level positions on many of these issues.
6 And then finally here at the international level,
7 there's been some progress in the Scandinavian
8 countries, and I think at this point I would like
9 to turn it over to Tom Isaacs who is the chair of
10 our experts panel who is overseeing our work who
11 could maybe speak and say a few words about the
12 international effort and also some case study
13 efforts.

14 TOM ISAACS: Thank you, Joe, and thank
15 you to the Community Engagement Panel. I
16 appreciate the opportunity to make a few, and I do
17 mean a few remarks as well. It's often helpful,
18 very instructive to take a look elsewhere outside
19 the U.S. to see how things are going both to see
20 what countries are doing to make progress and also
21 to see where they're having problems and to see if
22 we can learn from their failures as well.

23 It's known to lots of folks that for a
24 variety of reasons, I would think it's uniformly
25 agreed that the two leading countries in the world

1 in terms of repository development are the
2 Scandinavian countries of Finland and Sweden.
3 Finland is very close to opening what will be the
4 first permanent repository for the disposal of
5 spent fuel high level waste in the world. And
6 Sweden is not far behind and France also has a
7 very active program. There are other countries
8 with programs active as well, but those are
9 clearly the leaders. It's a very dynamic
10 situation.

11 Just in the last week two very
12 interesting things have happened in Japan, which
13 has had a history of very difficult times in
14 trying to site a repository, two communities have
15 volunteered to be considered to learn more about
16 whether they have might have a site that would be
17 suitable for the disposal of waste. That's at a
18 very, very early stage. There's already, of
19 course, considerable opposition. Nonetheless it's
20 quite interesting that two communities in Japan
21 have now officially and publicly expressed some
22 interest.

23 The second thing of interest is in Canada
24 where there is a very active and aggressive
25 program, one that I've been involved with very

1 intimately for over 15 years in a variety of
2 circumstances and this week the government of
3 Canada tasked the organization in Canada called
4 the Nuclear Waste Management Organization to not
5 only look at siting a repository for their spent
6 fuel but to develop a strategic plan to integrate
7 the management and disposition of all radioactive
8 material in Canada.

9 So these are interesting circumstances
10 that if we had more time would be very interesting
11 to go into. If I could have the next slide
12 please. Joe mentioned the fact that there's been
13 opposition in New Mexico and Texas to interim
14 storage, and I think it's interesting as a lesson
15 learned to look at something called WIPP. WIPP
16 used to stand for Waste Isolation Pilot Plan.

17 If you can move onto the next slide, I
18 would appreciate it.

19 It's now known basically as a WIPP, and
20 it is a functioning repository in Southern New
21 Mexico and has been operating for over a decade
22 and it disposes of transuranic defense waste.
23 These are not spent fuel from nuclear power
24 plants, they're not commercial, they come out of
25 the government's defense programs, and the

1 transuranic waste is not hot thermally, like spent
2 fuel is, but it does have very dilute amounts of
3 actinines, which are the parts of the waste that
4 stay radioactive for a very, very long periods of
5 time --

6 CHAIRMAN DAVID VICTOR: I'm going to
7 shift in here for a moment, Tom. Could we get
8 slide 51, please.

9 TOM ISAACS: Thank you. I appreciate
10 that, David.

11 And so I wanted to just very briefly talk
12 a little about the history of WIPP, and I'm going
13 to give you the readers digest version because we
14 don't have much time. But it shows you how long
15 and tortuous a path might be to get to a facility.
16 That doesn't mean we can't get that, it just means
17 that you have to have persistence, and in
18 particular you have to be adaptable and flexible
19 to run a program to hopefully look for those
20 windows of opportunity where you can make
21 progress.

22 Carlsbad, New Mexico, as I mentioned, is
23 in southern New Mexico pretty isolated place and
24 was a mining town basically mining pod ash. Like
25 many mining towns they go bust or boom, and it

1 went bust, and all of a sudden Carlsbad, New
2 Mexico didn't have an economic engine anymore, and
3 a very small number of political leaders and
4 influence leaders in that area learned that there
5 had been a federal program to try and site a
6 repository that had not succeeded, and so the
7 local politicians initiated contact with the
8 government and said we would like to be considered
9 we're a mining town, we know how to mine things,
10 we know how to put things in the ground, we even
11 know how to take things out of the ground, we
12 would like to talk to you about whether there's a
13 possibility that we might be a place for disposing
14 of radioactive waste.

15 Initially the people around the state of
16 New Mexico were highly opposed to this at almost
17 all levels, particularly the farther away from the
18 site you got the capital of Santa Fe you walk
19 through and you would see signs with, you know,
20 red circles and arrow through them saying WIPP.
21 Nobody wanted the facility.

22 But over time when I call a win-win-win
23 was fashioned through an extensive program of
24 trust-building an compromise and what happened the
25 local people got a repository. It was dedicated

1 to this transuranic waste. By the way, this
2 transuranic waste includes trace amounts of
3 plutonium. It's not benign stuff in the sense
4 that it really needs to be handled well and it is.
5 And so they were able to get a facility that
6 revitalized their economy. The governor got an
7 agreement that no spent fuel would go into that
8 facility, it would only be this defense
9 transuranic waste and got money from the federal
10 government to establish his own scientific
11 environment group, called the environmental
12 evaluation group to independently look at the work
13 that was being done to develop this repository to
14 satisfy the governor and to satisfy the state that
15 this work was being done safely and appropriately.

16 As part of the compromise, people in
17 Santa Fe hundreds of miles away did not want the
18 waste going through Idaho or much of it was going
19 through the streets of Santa Fe, so an agreement
20 was reached to build a bypass around the city of
21 Santa Fe which was done.

22 So today there's a bypass around Santa Fe
23 so that the spent fuel can move around and by the
24 way most of the economic development in Santa Fe
25 is near the bypass, that's where the trucks go.

1 And the local community which was somewhat
2 skeptical at the beginning is now very supportive
3 of WIPP. They see the benefits that comes to the
4 community, and many of them lobby now to have
5 their mission expanded.

6 I give you this very snapshot view just
7 to tell you that this is the way as we hear about
8 the strategic plan now going forward from the
9 north wind team that we need to think about the
10 options and the flexibility and the adaptability
11 that are required for a program like this to
12 ultimately be successful, and with that, I'll turn
13 it back over.

14 JOSEPH HEZIR: Thanks, Tom.

15 So if you look at the top of Tom's chart
16 there, this was a process it took 25 to 30 years,
17 and it had its ups and downs, but I think I would
18 also simply point out the location for the
19 proposed interim storage facility in New Mexico is
20 almost literally right next door to WIPP just down
21 the road a bit.

22 So not withstanding the current
23 opposition of the governor we'll think -- we're
24 hoping that some window of opportunity will open
25 up there as things progress. So if you go onto

1 the next slide, please.

2 So why do we do this work to develop a
3 strategic plan? Really as all of you I think in
4 the audience know it started off as a requirement
5 in the settlement agreement regarding the
6 implementation of the current onsite spent fuel
7 storage facility, but the North Wind team, as we
8 approached it, approached it really as an
9 opportunity and working with SCE I think we
10 collectively now look at it as an opportunity to
11 do a number of things. Obviously to find a
12 commercially reasonable pathway for moving
13 forward, but I think the other thing is if you
14 flip down to that third bullet, what's unique
15 about this plan is that we're approaching it from
16 the perspective of the utility and a customer which
17 is a lot different than many of the other reports
18 that have been done to date about what to do about
19 nuclear waste to sort of take this big top down
20 view looking at it from a national level and the
21 other thing I think is unique about the process is
22 that we've had extensive stakeholder input, and
23 I'll say a little bit more about that later on.

24 And then last but not least I think we
25 think that by having this plan in place, I want to

1 reemphasize the points that Tom made about being
2 flexible and adaptable, because we don't know
3 exactly how circumstances are going to unfold and
4 when they're going to unfold, but by having a
5 durable plan in place, SCE will hopefully be well
6 positioned to act when that window of opportunity
7 does open up.

8 So, again, going to the next slide.

9 CHAIRMAN DAVID VICTOR: Slide 53, please.

10 JOSEPH HEZIR: The next slide, please.

11 So I think, again, we've probably discussed this
12 previously, but we have a very robust team that's
13 working on this plan right now, we have the
14 experts team that's chaired by Tom Isaacs. We
15 have the North Wind team, which is really
16 organized a number of individual experts in
17 various subject matter areas and then we've also
18 had this very extensive stakeholder interview
19 components and to date we've had something on the
20 order of about 60 interviews where we have
21 instilled that input into our thinking and our
22 analysis, and then last but not least we've been
23 working closely with an internal team from SCE as
24 we've been championing the analysis and
25 integrating all of this stuff into the final plan

1 document.

2 So if you go to the next slide, please,
3 the next slide shows the framework that we're
4 using in preparing the plan. So our stated goal
5 is to have a plan that would result in a safe,
6 commercially, reasonable relocation of the spent
7 nuclear fuel to another facility to enable
8 restoration of the site and return the land to the
9 navy.

10 The main framework of the plan is
11 summarized in those five check marks below. One
12 is that we want to work to achieve timely offsite
13 disposition; secondly, we want to make sure that
14 we satisfy the current DOE contractual
15 requirements; third, we want to prevent
16 incremental costs due to continued interaction;
17 fourth, we want to avoid possible unrecoverable
18 cost to SCE customers, and last but not least, we
19 want to protect SCE customers from any residual
20 liability risk once the spent nuclear fuel leaves
21 the SONG site, and so those principles have been
22 our principles as we've gone through the analysis.

23 Next slide, please. All right. So we
24 started off looking at casting a very wide net and
25 based on our experiences, we viewed all of the

1 various studies that have been done to date we
2 tried to work through those to identify what we
3 thought would be potentially feasible pathways and
4 narrow that down to a smaller list of
5 alternatives where we're merely focused our
6 analysis.

7 So obviously given that a permanent
8 repository and a geological repository has been
9 the bedrock of federal policy for well over a half
10 century that clearly is one of the alternatives
11 that we looked at and we looked both the scenario
12 where Yucca Mountain gets restarted, we've also
13 been looking at some ideas if the program is
14 restarted and the process has started to look for
15 another site.

16 A main focus of our analysis has been on
17 various forms of a consolidated interim storage
18 facility, and a consolidated interim storage
19 facility can take many forms ranging from
20 something that is a completely federal program
21 that is owned, operated, and funded by the
22 Department of Energy. Some form of federally
23 supported, nonfederal facility and we've looked at
24 also some various personal motivations on that
25 public/private partnerships, and then last but not

1 least, looking at something that would be purely
2 private or non federal effort.

3 We've also taken a look at some other
4 alternatives that really were identified in the
5 stakeholder process, in particular, the notion of
6 a multi utility storage, for example,
7 consolidating the SONGS spent nuclear fuel at the
8 Palo Verde Nuclear Generating Station, which was
9 an alternative that was explicitly identified in
10 the settlement agreement, and we've also looked at
11 some variations of moving the current ISFSI
12 elsewhere across I-5, such as onto other lands on
13 Camp Pendleton.

14 Last but not least, we've also did some
15 preliminary reconnaissance and some other
16 concepts, but these sort of go beyond regulatory
17 frame works in particular the one we looked at was
18 deep bore hole disposal. We're still in the
19 process of completing our analysis of each and all
20 of these alternatives, so I can't really get to a
21 bottom line tonight, but I do want to kind of walk
22 you through a little bit of some of our thinking
23 about each of these alternatives and how we are
24 approaching it.

25 So if you go onto the next slide you'll

1 see here four kind of overarching assessment
2 factors that we've been using in kind of
3 evaluating these alternatives. The first being
4 technical, safety and regulatory feasibility;
5 second one is whether it meets the test of
6 commercial reasonableness that was set out in the
7 settlement agreement, a third consideration has to
8 do with scheduling in terms of the timeliness for
9 moving the spent fuel offsite, and last but not
10 least, implementation feasibility issues.

11 Let me walk through each one of these
12 four in a little bit more detail and kind of give
13 you a flavor of how we've been applying these
14 assessment factors.

15 If you could go to the next slide,
16 please. So the first factor was that the
17 technical safety and regulatory feasibility. And
18 it's a kind of questions we've asked ourselves is
19 whether or not the disposition alternative has
20 been technically proven, is the necessary
21 regulatory framework in place to ensure that it
22 can be safely implemented, and then what level of
23 work is needed to prepare to obtain the necessary
24 approvals.

25 So as you kind of think about these

1 questions relative to the alternatives that we're
2 considering, we see that there are two private
3 storage projects in New Mexico and Texas have been
4 regulatory development for a number of years now
5 and we think are very well positioned to obtain
6 NRC licenses. The current schedule that the NRC
7 has said indicates that they would issue final
8 license actions sometime in this coming year in
9 2021.

10 But by comparison looking at an
11 alternative such as moving the current SONGS ISFSI
12 to any new site, whether it's one mile away or a
13 hundred miles away, could take many years of
14 technical planning and regulatory review
15 particularly to do the site characterization work
16 and to develop the regulatory packages. And then
17 if you look at it at the kind of the far end of
18 the regulatory feasibility spectrum, an
19 alternative such as a deep bore hole disposition,
20 which is a very interesting an innovative concept
21 poses a number of technical issues when really you
22 match it with the current regulation, there really
23 is not a clear licensing framework in place to
24 enable that alternative to move forward quickly,
25 and so these are all considerations that affect

1 then how quickly we could move on any of these
2 alternatives.

3 So if you go to the next slide, next
4 slide talks about schedule considerations. And
5 questions about how quickly we could move the
6 spent nuclear fuel offsite. And so in some of
7 these then also depend not only on the technical
8 factors but also the legislative and political
9 environment, particularly if we need new
10 congressional legislation in order to implement
11 the alternative.

12 And then last but not least, as part of
13 the conceptual transportation plan we've also
14 looked at what steps are needed on site to prepare
15 the spent nuclear fuel for transportation
16 readiness. So when you think about these
17 questions relative to the current alternatives, we
18 find that the development of a permanent
19 geological repository whether it's restarting
20 Yucca Mountain program or starting afresh with a
21 new site is going to take much, much longer in
22 time and could be much more highly uncertain than
23 the other alternatives. In fact, when we've
24 looked at some of the scenarios, we're looking at
25 scenarios that could go well towards the end of

1 the century before all of the spent nuclear fuel
2 could be moved from SONGS to one of these -- to a
3 permanent facility, thus this suggests to us when
4 thinking about past experience including the
5 experience with WIPP that Tom Isaacs talked about
6 and as well as the current planning the
7 consolidated interim storage facility at some
8 offsite location could be implemented much sooner,
9 notwithstanding the uncertainties that exist
10 there.

11 And then last but not least, the other
12 thing that became evident in our analysis is that
13 we need to think about not only when a facility
14 could open, but we also need to think about how
15 long it will take to move the spent nuclear fuel
16 to the facility once it opens. And the issue
17 about shipping and prioritization of shipments
18 particularly if a facility is going to be
19 receiving fuel from multiple reactor sites becomes
20 a very important consideration, and in fact, that
21 could stretch out for over several decades.

22 For example, even with the current
23 initial plans for Yucca Mountain when they were
24 first put together, while SONGS was high up on the
25 priority list for shipment for initiation of

1 shipments, we found that the full schedule for
2 shipments could take two to three decades, and so
3 we want to be able to think about not only opening
4 the facility but also what's the most efficient
5 way to move the fuel to the facility once it's
6 opened.

7 If you will move on to the next slide,
8 we'll talk again about the commercial reasonable
9 test. And this is a criteria that is part of the
10 criteria that is in the settlement agreement that
11 we've applied in our analysis of these
12 alternatives and basically it boils down to two
13 main questions, what will it cost and who's going
14 to pay.

15 In particular on the question of who is
16 going to pay, is it going to come from the moneys
17 that the SEC customers have prepaid into the
18 Nuclear Waste Fund, will it come from some of the
19 Judgment Fund, which is currently following some
20 of the on site storage costs, and last but not
21 least would it be prudent for SCE to use any of
22 its decommissioning trust funds to pay for these
23 costs.

24 So what we're seeing in our analysis is
25 that obviously any alternative whether it's

1 permanent repository or interim storage, if we can
2 require the federal government to perform its
3 statutory and its contractual responsibilities to
4 take the fuel and take title and possession at the
5 fence line is the alternative that results will
6 avoid any additional costs to utility customers,
7 not only SCE but for other utilities as well.

8 If we're dealing with a consolidated
9 interim storage facility where the providers will
10 be charging fees for storing the spent fuel, there
11 are some uncertainties about what costs might be
12 reimbursable from the government through the
13 Judgment Fund and what costs might still be born
14 by utility customers. And since the settlement
15 agreements with the government were case by case,
16 there's no established policy right now in this
17 area but in our analysis what we're doing is
18 identifying what those cost elements might be an
19 making some recommendations for how SCE might work
20 with the federal government to address them.

21 So if you go onto the next slide and sort
22 of the fourth criteria, I want to say a few words
23 about implementation feasibility, and that is,
24 again, a key question in feasibility is what can
25 we accomplish under federal current law and where

1 do we need changes in federal law. A second key
2 question obviously is what are the other social,
3 economic, political factors such as opposition of
4 state governments that might impact
5 implementation. And the last key question is what
6 can SCE do about this because remember, SCE is not
7 operating in a vacuum here they one of number of
8 utilities facing the same suite of issues, so how
9 can SCE move forward in working with not only
10 state and local stakeholders but also others
11 within the utility industry.

12 So what we are seeing in our analysis to
13 date is that because the Judgment Fund does not
14 have a clearly established policy on
15 reimbursement, and a lot of these result from
16 case-by-case negotiations, we're going to need new
17 federal policy guidance and what could be paid for
18 and reimbursed from the Judgment Fund. These
19 might ultimately then need to be incorporated into
20 an amendments to the settlement agreements.

21 A second key point that we're identified
22 that we're discussing with SCE is the question
23 about liability for when the spent nuclear fuel
24 leaves the site. And one of the issues and it's a
25 key issue, is that if the government does not take

1 title to the spent nuclear fuel at this new
2 facility, and SCE still holds title, there's a
3 serious question about who retains liability for
4 that spent nuclear fuel while it's in storage.
5 And then the last point, as I said earlier, is
6 that many of these issues are not unique to SCE
7 but are industry-wide issues, and they're going to
8 require some form of collective action across the
9 industry with broad coalition support.

10 So having said that, what's our current
11 thinking about a path forward here, and so if you
12 look at the next slide, we see the key is for
13 federal action is really needed here but the
14 prospects and the timing are very uncertain and so
15 in the plan itself, we're going to emphasize very
16 strongly optionality and flexibility so that SCE
17 can respond to the opportunities as they may
18 arise.

19 So we need to establish federal
20 leadership, we need the optionality and
21 flexibility, and in the meantime, we need for SCE
22 to continue to do what it's currently doing which
23 is implementing its decommissioning plans safely
24 and effectively, to continue the inspection
25 maintenance and monitoring programs for the spent

1 nuclear fuel in the current ISFSI and, again,
2 pursue readiness actions to be prepared once the
3 opportunity arises for movement.

4 Next slide, please. So part of the
5 federal action really is to establish what the
6 aspirational agenda for what's really needed here,
7 and the industry wide the nuclear industry has
8 been working on principles that they're working on
9 to work with congress on and these are adapted
10 from those principles but they're definitely
11 applicable to the current situation with SONGS.

12 So number 1 absolutely is we need federal
13 funding to restart the national program. As I
14 pointed out, we may be in a situation now where
15 going into this next fiscal year we actually may
16 be able to get a small amount of appropriations to
17 do just that. Related to that then is we need the
18 federal government to step forward to encourage
19 interim storage either as a direct federal program
20 or something in cooperation where they're
21 supporting these nonfederal entities.

22 The third thing that we need is we really
23 need to restart work on a permanent repository,
24 one that includes effective stakeholder engagement
25 and very close consent coordination and consent

1 with state, local, and tribal governments. We
2 didn't talk about it much, but we think that any
3 interim storage program in order to be interim and
4 be accepted as interim requires that there be in
5 parallel a program for permanent repository.

6 And then last but not least, and this is
7 a sensitive issue in the industry, is we really
8 need to rethink transportation scheduling for
9 shipping spent fuel to a facility once it's open.
10 And there's some ideas out there for how one could
11 improve the efficiency and cost effectiveness for
12 doing that. In fact, some of the legislative
13 proposals in congress will encourage DOE to do
14 just that to provide greater priority to spent
15 fuel from so called shutdown or stranded sites.

16 With that, I'll turn it back to Elizabeth
17 on the next slide here to kind of summarize what
18 our final product will look like and what our next
19 steps are from getting the completion from here to
20 there.

21 ELIZABETH HELVEY: Actually, I think
22 Manuel was going to present these.

23 JOSEPH HEZIR: Sorry, Elizabeth. Okay.
24 Manuel.

25 JOSEPH HEZIR: Manuel, do you want to

1 pick up on this?

2 MANUEL CAMARGO: Yeah, so just very
3 briefly the -- and thank you, Joe, I appreciate
4 that overview. I'm sure we'll get some questions
5 but well done.

6 Here I just want to address that there
7 are three total plans. We do have a strategic
8 plan so a lot of what Joe talked about here
9 regarding the analysis and assessment that's being
10 done. That's captured in the strategic plan. We
11 also have a conceptual transportation plan and
12 that helps us at SCE understand the steps we can
13 take in order to prepare for spent fuel
14 transportation.

15 And then finally we do have a spent fuel
16 action plan, and that is really we'll be informed
17 by the findings in both the strategic plan and the
18 conceptual transportation plan. So that will give
19 us the concrete steps that we can take in order to
20 implement the recommendations. So next slide, if
21 you would. And then finally just to wrap up is
22 completion of the strategic plan. So that will
23 be -- the next steps the plans will be finished up
24 in late February or early March of next year.
25 We'll release the plans at that time, and the key

1 point here to for the CEP is, you know, David
2 asked us to come back and in that time frame and
3 to talk in more detail because by that point the
4 assessment will be finished, the plans will be
5 done, and we'll be in a much better position to
6 help the community understand where we at Edison
7 will place our time and energy.

8 So, David, that's really it for the -- I
9 think that's the last slide.

10 CHAIRMAN DAVID VICTOR: Yes, that is.
11 That's a lot of moving parts. Thank you very much
12 Elizabeth, Joe, Manuel for that overview.

13 So I want to now see if there are any
14 members of the CEP who have questions. I know
15 there's been a lot of interest. Maybe we can stop
16 sharing with some trepidation, I guess, stop
17 sharing the screen so we can see people's images
18 up, full video if they want to.

19 Any members of the CEP want to raise any
20 questions or make any comments about where we are
21 with -- Dan Stetson.

22 VICE CHAIRMAN STETSON: Thank you, David.
23 And I want to thank the team also for that
24 comprehensive presentation.

25 I would like to ask Tom Isaacs, Tom, are

1 there any takeaways or lessons that we can learn
2 from Finland or Sweden that might be applicable
3 here in the United States?

4 CHAIRMAN DAVID VICTOR: As we're going to
5 Tom Isaacs, can we stop sharing? Because right
6 now all I see I'm doing is looking at a black
7 screen and decisive as that is, maybe we can stop
8 sharing so we can see people's images.

9 So, Tom, what can we learn from overseas
10 and maybe become a little bit more like the Fins
11 and the Swedes.

12 TOM ISAACS: Not a bad idea. I can tell
13 you this, the first time I came back from a trip
14 to Finland and Sweden when I was in the department
15 of energy and walked into a senior management
16 meeting my opening comment to them was they're
17 smarter than we are. People were outraged at the
18 comment, but what I meant by that is their science
19 an technology wasn't any better than ours but the
20 way they approached the social, the political, the
21 engagement, the communications part were quite
22 different.

23 Now, you have to understand these lessons
24 learned can't be simply transferred from one
25 country to another. They have different politics,

1 they have different value systems, they have
2 different histories with nuclear activities, and
3 so forth but there were a lot of things that could
4 be learned.

5 I think the main thing was that they --
6 that they learned that they had to establish a
7 sense of trust and confidence leading to a
8 partnership between the implementing organization
9 and the people who were going to be most effected
10 by this, the community that was involved. And
11 they work very, very hard and very, very
12 comprehensively to try and make it clear that when
13 they made decisions, they made them in block step
14 with the community in a way that would serve the
15 vision of where the community itself wanted to go.

16 I think that rather -- I could talk about
17 this for a long, long time, but I think that's the
18 main thing takeaway I would say is a lesson that
19 we could learn in terms of how we're going to
20 implement the program like this if we were to be
21 successful.

22 CHAIRMAN DAVID VICTOR: So before I go to
23 Paul Wyatt who has a question, I want to ask you
24 directly on this topic, Joe Hezir said that we
25 need to restart the federal permanent repository,

1 otherwise interim won't be seen as interim, I
2 totally get that in theory. In your assessment
3 does that mean starting over, that Yucca -- this
4 process of engaging with the local communities so
5 they see benefits and it's a real partnership, is
6 that horse out of barn for Yucca, or can we put
7 the horse back in the barn?

8 TOM ISAACS: The answer is strange things
9 happen, and I'm not really sure. When the program
10 was stopped, in the Obama administration a Blue
11 Ribbon Commission was put together, and I was the
12 lead advisor to that commission so I had a role in
13 it, but one of the things we said was whether or
14 not you start or restart at Yucca Mountain or
15 whether you start it over, you need to go apply
16 the kind of principles I just talked about in
17 brief.

18 I think it's a really tough road to go
19 back to the Yucca Mountain and Nevada given the
20 history that we have, but I've seen circumstances
21 like I showed at WIPP where times change as my
22 father used to say in Latin, times change and so
23 do we, and so there's an opportunity if indeed the
24 people of Nevada and the people who live near that
25 site of which there are not many, see it in their

1 best interest to fashion a future that is realized
2 part of which would be to come back and say, yeah,
3 we'll consider this under certain circumstances.
4 I think it's much more likely that we will have to
5 have a broader look beyond Nevada, beyond Yucca
6 Mountain for this to have best chances.

7 CHAIRMAN DAVID VICTOR: Okay, we're going
8 to test your Latin but not right now. We're going
9 to go to Paul Wyatt and then Martha McNicholas.

10 Paul, the floor is yours.

11 PAUL WYATT: I have two parts: First
12 Southern California Edison in this plant are not
13 the only one, and we mentioned that. There are a
14 number of nuclear power plants now and, in fact,
15 even all the operating ones who have spent nuclear
16 fuel, and it should have been disposed of.

17 What effort is put together by the
18 companies holding the spent nuclear fuel to align
19 their interest and help as a group set this
20 vision? My take is these private industries will
21 do a better job if they work together and provide
22 leadership than looking for any government agency
23 to provide leadership. So back to this group,
24 what effort is being made to actually get
25 leadership coming from industry on how this might

1 play out? That's the first part.

2 CHAIRMAN DAVID VICTOR: Hold the second
3 part for a moment. I want to go to Joe to see,
4 Joe, maybe you want to talk about you called it a
5 collection problem. Tell us how we wave a magic
6 wand over that one.

7 JOSEPH HEZIR: No, I would be happy to
8 address that. Right now there are 19 shutdown
9 plant sites across the U.S. and if you look ahead
10 a few more years, they'll be by the time Diablo
11 Canyon shuts down, it will be 22, and there are 16
12 states. It is a growing number, and the amount of
13 spent fuel at the shutdown sites if you look out
14 again beyond the next few years, at the next 10 to
15 20 years, the amount of spent fuel, and again,
16 this will be in our report is going to increase by
17 fourfold.

18 So we see growing in pressures for doing
19 something at the shutdown sites where --
20 particularly where there's active decommissioning
21 such as in SONGS and the decommissioning work will
22 be done as in SONGS within a decade but then
23 you'll have the spent fuel that would still be
24 there. Now having said that, there has been a
25 coalition of a few companies, and I think SCE has

1 been part of that so-called decommissioning plant
2 coalition that has been pressing for some federal
3 action on storage to take the spent fuel from the
4 shutdown plants but as I pointed out earlier in
5 the presentation, so far has not really gotten
6 traction.

7 I would just simply add, though. I think
8 I agree with you in part that we really need the
9 private sector here to step forward, and I think
10 you have obviously the two companies in Texas and
11 New Mexico, and you also need this coalition of
12 utilities, and they all need to be working
13 together. But at the end of the day and I think
14 you'll see this in our final plan, we're still
15 going to recommend that there's still going to be
16 a need for the federal government to step in here
17 and in two main areas, one is to provide money and
18 also to provide some liability protection, and so
19 I don't think -- I don't think the private
20 companies necessarily at the end of the day could
21 do it much better if there is some partnership
22 with the federal government.

23 CHAIRMAN DAVID VICTOR: Let me go back
24 just underscore something here, which is I've seen
25 no evidence that it's going to be acceptable to

1 have fuel leave a plant without liability
2 transferring, so I would hope that we have a
3 discussion into the first quarter that includes
4 not only the different options technically but
5 also looks at the question how do we do collective
6 action, what do these communities need to do, what
7 can we do to connect to these different
8 communities so we do better than what we're doing
9 right now.

10 Paul, you had a second whack at the
11 pinata?

12 PAUL WYATT: Yes, that comes to Tom
13 Isaacs. So what's the vision for the local area
14 where this fuel would be, that is, if it doesn't
15 clearly benefit that area in a way that can be,
16 you know, well stated and measured and then
17 progress made from that benefit, then the
18 likelihood that they will take more and more fuel
19 and possibly even become, you know, permanent
20 because the whole community is benefitting from
21 having fuel there, we can't have that vision with
22 them, these organizations and work through how to
23 make it safe and beneficial, then I don't see how
24 we will ever get communities to commit.

25 What effort is being made to work with

1 communities like what's happening in Carlsbad?
2 There's a sample to build on, right, where the
3 WIPP is to make that happen?

4 CHAIRMAN DAVID VICTOR: Did you want to
5 talk briefly about this Tom before I go to Martha
6 McNicholas for the next question?

7 TOM ISAACS: I think the comments that
8 were just made were self-evident. I don't think I
9 have anything to add.

10 CHAIRMAN DAVID VICTOR: Okay. I think
11 it's right. Let's get Martha's question and we'll
12 see if there are additional comments on this. I
13 think this is a key to the politics. There are
14 lot of politics that have to line up. I think the
15 point that WIPP took 30 years not because it's a
16 30-year problem, but because of politically it was
17 a 30-year problem. That's crucial.

18 Martha, did you want to raise your
19 question and then after you I'm going to go to --

20 MARTHA McNICHOLAS: Yeah, it's actually
21 kind of a small one compared to the large lift of
22 getting something nationwide restarted and Yucca
23 Mountain restart. It goes back to one of the
24 first items on the presentation, and that was the
25 possibility of moving storage across the freeway

1 to Camp Pendleton, and I thought, and maybe I'm
2 wrong, in a previous CEP meeting we pretty much
3 put that to rest, that the navy and the -- hello?

4 CHAIRMAN DAVID VICTOR: Somebody's
5 Netflix was on. Let's go back to the question was
6 moving across the freeway was a viable option, and
7 my understanding is that that's not on the table
8 in a serious way, maybe I could ask actually
9 Manuel, if you wanted to give us any commentary on
10 that particular option.

11 MANUEL CAMARGO: Yeah, hi David, and
12 Martha, thanks for the question. I mean, yeah,
13 you're right, Martha, we did hear at a meeting in
14 2019 that the navy and marine corp are actually
15 very much interested in getting the spent fuel off
16 site, even where it is now because we occupy part
17 of Camp Pendleton as it is.

18 And actually there's a letter from a
19 Lieutenant General Dana from 2018 indicating just
20 that, communicating with the NRC chairman at that
21 time and asking for support to getting the spent
22 fuel off site. At present there's been no change
23 to the navy and the marine corp, their position on
24 this. But, you know, that's not to speak to the
25 full analysis that's being done by the North Wind

1 team, but certainly that navy position is
2 unchanged as of now.

3 MARTHA MCNICHOLAS: Okay, because our
4 commitment is still to return to the navy to --
5 return the property to the navy for their use.
6 They want it gone-gone.

7 MANUEL CAMARGO: That's exactly right.

8 MARTHA MCNICHOLAS: Okay, thank you.
9 Sorry that was kind of -- I saw that on the list,
10 I go, that isn't still on the list. Thanks for
11 the clarification.

12 CHAIRMAN DAVID VICTOR: My understanding
13 is the mandate as it should be through the
14 strategic plan effort is to look widely and to
15 turn all stones. Sounds like the team earlier
16 that was measuring estimating way the stones would
17 be helpful here too, to turn all stones and that's
18 a stone that should be turned, even though not
19 exciting under it, but I'm sure we will hear more
20 about that in the first quarter.

21 I want to ask Ted Quinn who wanted the
22 floor earlier, Ted, did you want to say something?

23 TED QUINN: I want -- can you hear me
24 okay?

25 CHAIRMAN DAVID VICTOR: Loud and clear.

1 TED QUINN: Okay. I wanted to follow up
2 on Paul's second question and it really goes back
3 to when John Kotek at DOE was doing the consensus
4 building for siting of these facilities, including
5 in California. We had a number of meetings there
6 were reports driven, and I think the team has done
7 an excellent job and I think my question is is
8 there an evolution in the consensus building that
9 you see in the coming years or lessons learned and
10 others and we company advance the work that John
11 Kotek did?

12 JOSEPH HEZIR: This is Joe Hezir, I'll
13 address that. I think that work got a really good
14 start in that kind of a process, and I also think
15 that going back to the earlier question as part of
16 that process I think would be an opportunity to
17 identify the potential for other benefits to a
18 host community, which I think is absolutely
19 critical here.

20 We are hopeful that if the national
21 program gets restarted, it would pick up on the
22 work that John and his team had worked on. And
23 our colleague on our team Elizabeth Helvey and
24 several other members of our team are part of that
25 and very supportive and wanting to extend that

1 work and see that work carried forward in the
2 implementation of this plan.

3 TED QUINN: Thank you.

4 CHAIRMAN DAVID VICTOR: Excellent. Well,
5 thank you all very much. I'm not seeing any other
6 questions from the CEP members, and so I want to
7 just thank Elizabeth and Joe and Tom for this
8 update. We look forward to seeing you in the
9 first quarter.

10 And just underscore I'm hearing from a
11 lot of people the question of when do we get folks
12 engaged, when do we write letters, how do we act.
13 Clearly there's a collective action problem when
14 it comes to federal policy, and people kind of
15 want a road map for what to do and when and how,
16 and I think there's a lot of energy, good
17 energy behind that. So let's be sure to have the
18 political conversations in the first quarter in
19 addition to looking at the individual options.

20 So what we're going to do right now is
21 just take a three or four-minute break, and then
22 we're going to go public comment period, we're
23 running quite late today. And as far as I can
24 parse from our online system here, public comment
25 period is going to begin with Nina Babiarez and

1 then we'll have Donna Gilmore after Nina. But
2 let's take a three-minute break, and we'll be
3 right back in a moment.

4 (Recess taken.)

5 CHAIRMAN DAVID VICTOR: Okay. If we
6 could start, let's start with Nina Babiarez, and
7 then we are going to go to Donna Gilmore and if we
8 could open up Nina's line, we will get started.
9 Let's first just make sure Nina is there.

10 Nina, are you there?

11 NINA BABIARZ: I am. Can you hear me?

12 CHAIRMAN DAVID VICTOR: Loud and clear.
13 This is magical. So I'm really delighted that
14 you're our first speaker. I think it tends well
15 we're going to have no technical glitches in the
16 last segment here. Nina, the floor is yours.

17 NINA BABIARZ: Okay. I appreciate that,
18 Dr. Victor.

19 Vince Bilovsky, what a slick PR stunt for
20 a meeting agenda. Is this the approach that
21 Edison has been calling stewardship? Donna
22 Gilmore is a well-respected, dedicated, and
23 informed public safety advocate who asks
24 legitimate, valuable, and credible questions on
25 behalf of our community that Edison's response to

1 this is an attack instead of engaging her concerns
2 is indicative of Edison's culture that has led and
3 created the current circumstances at San Onofre.
4 So if Edison's agenda tonight is myth busting,
5 let's just do that and bust the myth that anything
6 done at San Onofre has been done safely, or bust
7 the myth that Edison could be trusted after all,
8 it's Edison's corporate culture that enabled
9 absconding of human remains and the concealment of
10 those remains in 1968 that would have stopped the
11 construction of unit 1 in its tracks. The Edison
12 VP of engineering Dwight Nunn who penned a letter
13 who predicted the water hammer radiation leak that
14 shuttered San Onofre.

15 Let's not forget the esteemed generators
16 that lasted 11 months that gave the ratepayers of
17 the 11 months of steam generators that should have
18 lasted 40 years, the incestuous relationship, the
19 secret deal with Warsaw, Poland, or the deal that
20 was cut in secret behind closed doors that now has
21 North Wind blowing wind up our skirts with
22 alternatives that were dismissed almost
23 immediately after the settlement by Palo Verde,
24 and if you want to talk about alternative
25 pathways, then you better be talking to the

1 Department of Transportation, the Federal Rail
2 Administration, the Federal Transit
3 Administration, the Federal Highway Administration
4 just for starters of your regulatory packages.
5 Broken shins and bolts, massive emergency planning
6 exemptions, Palmisano had to apologize that he
7 lied to hundreds of people and finally the
8 whistleblower -- yeah busted in that myth of being
9 trusted.

10 So, you know, come to think about how we
11 got here in the first place and why North Wind is
12 talking about the ratepayers' liability when all
13 of what we're talking about has been the screw up,
14 the design, and the lying of Edison is something
15 that the Community Engagement Panel members should
16 be questioning. Thank you very much.

17 CHAIRMAN DAVID VICTOR: All right.
18 Excellent. Thank you very much for your comment.
19 Next we're going to have Donna Gilmore, and then
20 after Donna Gilmore, Charles Langley. Right now
21 Donna Gilmore the floor is yours.

22 Donna, can you hear us? Your microphone
23 is unmuted, Donna.

24 Let's go on to Charles Langley. We'll
25 come back to Donna. Hopefully we can work off

1 line in sorting that technical issue.

2 Charles Langley, the floor is yours and
3 then after Charles Langley, it will be Kale Walker
4 and we'll come back to Donna.

5 So it could be that Charles Langley is
6 the Public Watchdogs intern as opposed to -- I
7 don't see Charles's name on the list here, so
8 maybe it's Public Watchdogs intern. Could you
9 mute that and ask.

10 Is that where you are now, Charles? Your
11 microphone is now unmuted. No, I see. Charles
12 Langley is here. Unmute his line further down.
13 There we go.

14 Charles, the floor is yours. Charles,
15 can you hear us? Let's go on now to Kale Walker,
16 and we'll come back to Donna Gilmore, and then
17 Charles Langley.

18 Kale Walker, Kaleen Walker, your
19 microphone is on.

20 KALEEN WALKER: Can you hear me?

21 CHAIRMAN DAVID VICTOR: Yes, loud and
22 clear.

23 KALEEN WALKER: All right. Well, too
24 many things to comment on. Basically what we
25 have, people who are listening around country and

1 across the planet, is we have the most dangerous
2 substance ever made by man, ever in nature. Most
3 dangerous substance being stored in canisters that
4 are designed not to be inspected or repaired.
5 They're -- the falsehoods presented by Edison with
6 their repair technology are not valid.

7 The canisters do not meet critical safety
8 requirements, so we have basically ticking time
9 bombs, and we can move these things around or we
10 can wait until there's a leak or explosion or
11 whatever the heck is going to happen with this
12 highly radioactive fuel, or we can do the prudent
13 thing and get this stuff put into containers that
14 are inspectable, repairable, maintainable over
15 time, put it into a rolling stewardship program so
16 that in the next decades and billions of years
17 that the government figures out or spends all that
18 money on trying to figure out where to take it, we
19 basically have to face up to the fact it's not
20 going anywhere until it's properly packaged so it
21 can be inspected before it gets moved.

22 Basically I've been looking into this. I
23 read the fine print. Holtec's letter that David
24 Victor seems to be so proud of, basically
25 confirmed what was a little bit confusing was that

1 those canisters release millions of curies even
2 without a breach of the canister. That's nothing
3 to be the proud of now we know it. Kris Singh
4 very careful to not condone that repair
5 technology, so read the letters; don't just listen
6 to the propaganda that's being presented.

7 Let's see. I don't know. This is too
8 much to say. Those -- the gouging, the loading of
9 those canisters should have stopped with the first
10 canister. That Holtec system should have been
11 stopped being loaded with canister number 1
12 instead bed son bought it now the warranty is up
13 and we own it. The people, ratepayers, taxpayers
14 we're going to pay, we're going to pay the
15 consequences. This is serious.

16 CHAIRMAN DAVID VICTOR: Thank you very
17 much for your comment. And I see there are also
18 some comments that came this in advance about one
19 of the repair technologies, and I'm sure the
20 responses that topic will come up again.

21 Let's try to go back to the Donna Gilmore
22 and Charles Langley. While you're doing that,
23 somebody has said they want the floor to speak and
24 they're dialing, the last four digits are 1379,
25 but I don't see anybody with those last four

1 digits dialled in. If that's you, if you could
2 let us know in some way, send me an e-mail or put
3 something in the chat or go to the link that we
4 have in the chat box, please let me know.

5 Right now, Donna Gilmore, your microphone
6 is open, and the floor is yours.

7 DONNA GILMORE: Okay. Thank you. Can
8 you hear me okay?

9 CHAIRMAN DAVID VICTOR: Loud and clear.
10 Whatever you did was magical remember what the
11 solution was.

12 DONNA GILMORE: They unmuted me is what
13 happened.

14 So the Department of Energy in 2019 had a
15 Sandia National Lab changed priority of the risk
16 of short term through wall cracks in these thin
17 canisters to a priority number 1 problem. So now
18 we have the Sandia National Lab owned by the DOE
19 and supposed to take all this stuff admitting this
20 is a priority one short term through wall crack
21 chloride induced stress corrosion cracking, which
22 is the salt air there, and in addition, we have as
23 those canisters were downloaded into the Holtec
24 system, the walls were gouged and carbon particles
25 embedded, which were another major trigger in

1 cracking for these canisters.

2 This is -- this waste, as Joe said, we're
3 looking at centuries before it goes anywhere, if
4 it ever does. I agree with that, and so we're
5 stuck with it. Our only option is to replace
6 these canisters with thick wall casks that meet
7 American Mechanical Engineering Standards ASME, M3
8 standards. Switzerland is an example of doing
9 interim storage right, they have monitoring inside
10 and out, they have maintenance inside and out,
11 they have redundancy, they store them in buildings
12 for environmental and security protection,
13 Sanonofresafety.org. You can learn about the
14 Swiss system and how it compares to what we have.

15 And this is really the only option we
16 have left regarding Holtec's letter. You know, I
17 agree, millions of curies radiation comes right
18 through the wall of those thin canisters there and
19 Kris Singh, the president said that, you know, he
20 could -- he recommends using a transport cask to
21 put failing canisters in. Well, the NRC has to
22 request to use that for storage, none at all,
23 nobody submitted a request, they're not even
24 anticipating any. So that's just, you know, smoke
25 and mirrors. The repair technology is

1 nonexistent. The NRC has not reviewed or approved
2 it, no one submitted an application for it. The
3 Edison admits it can see precursors to some
4 cracks. They're not even looking really, they
5 can't see cracks.

6 So this is our number 1 problem. So I --
7 and to on regarding WIPP, Isaacs didn't mention
8 that they had a hydrogen gas explosion there that
9 shut the place down for three years. I have a
10 long list of items but I think that's my time is
11 up right now. But thank you.

12 CHAIRMAN DAVID VICTOR: Thank you very
13 much, Donna, for your comments.

14 I want to go next to Charles Langley.
15 Let's see if we can get you on the line here.
16 Let's unmute Charles Langley's line.

17 Charles, your line is unmuted. Can you
18 hear us?

19 CHARLES LANGLEY: Great, can you hear me?

20 CHAIRMAN DAVID VICTOR: Loud and clear.

21 CHARLES LANGLEY: Terrific.

22 Mr. Isaacs underscored the importance of
23 community trust this evening and Sweden and
24 Finland, and Edison lost a significant portion of
25 this community's trust when it lied about a

1 near-miss canister drop on August 3 a couple of
2 years ago, and I was pleased to hear tonight that
3 we heard about another accident at the facility,
4 but this apparent dig-in event where a piece of
5 mobile equipment hit an electrified cable
6 apparently, but what I'm wondering why wasn't the
7 dig-in accident reported at the NRC's event
8 notification page? This seems to be another
9 violation of federal reporting laws that occurred
10 on August 3rd.

11 And you'll recall that Southern
12 California Edison misinterpreted, that was their
13 claim. They misinterpreted the law on the
14 August 3rd event and were fined for it.

15 So getting back to the issue of trust, I
16 think it's great that Edison mentioned another
17 potential accident at San Onofre that was averted,
18 but when you don't report to the federal
19 government and violate federal law, that's a
20 matter of concern. The second matter of concern I
21 have is that TEPCO, the owners of Fukushima,
22 claimed that Fukushima was something called bono
23 vacantia under the law. It's a Latin term. Bono
24 vacantia means ownerless property for whom no one
25 is responsible, and I heard Mr. Isaacs echo this

1 concept this evening when he talked about avoiding
2 customer liability in the future. And this issue
3 of why are customers, why would the public be
4 liable for a privately-owned nuclear power plant
5 with a government -- publically funded \$4 billion
6 fund for disposing of that nuclear waste that was
7 essentially created by this private corporation
8 and the NRC Southern California Edison, why are we
9 going to be on the hook when Southern California
10 Edison exceeds that \$4 billion estimate, and they
11 appear to be suggesting in their latest budgets
12 that they will, and that they will be coming after
13 us in the near future for rate hikes and that it's
14 unlikely that the Department of Energy is going to
15 assume control of this stuff, so if he can we get
16 a little bit of clarification on this unfunded
17 liability that ratepayers are suddenly expected to
18 foot the bill for. Thank you.

19 CHAIRMAN DAVID VICTOR: Excellent. Thank
20 you very much for your comments.

21 I want to say that whoever is at line
22 1379 if you do want to make a comment, please let
23 us know. We're going to go to the last comment
24 before that one, which is from George Allen, who
25 is at line 2778.

1 So, George Allen, if we could unmute line
2 2778.

3 SANJAY GUPTA: For George, press star 6.

4 CHAIRMAN DAVID VICTOR: Okay. George, if
5 you're hearing us at line 2778 if you could --
6 there you go.

7 GEORGE: Okay. I have appreciation for
8 Randy Granaas and Ron Pontes because I was
9 technician in the start-up of the ISFSI pad, and
10 those dose rates are equal to or less than what I
11 used to get in radiation survey.

12 My question was Greg Becker explained in
13 the SC Times that the effluence at San Onofre
14 letting out was reasonable, then someone from the
15 Lawrence Foundation rebutted and said the
16 effluence was not safe, and I was questioning or
17 wondering if you could explain to the public that
18 the type of emission that we produced did not give
19 people the amount that someone like the Lawrence
20 Foundation might put out that it's diluted, and we
21 don't drink the water that comes out of the plant,
22 so could you kind of explain the difference
23 between what a Lawrence Foundation person might
24 say and someone like Greg Becker could say?

25 CHAIRMAN DAVID VICTOR: Excellent. Thank

1 you very much for your comment.

2 My guess we'll be putting that comment
3 back to Randall Granaas and Eric Golden. I don't
4 know if they have a report from the Webinar Samuel
5 Lawrence Foundation had today, so we'll get to
6 that in a moment.

7 So I'm not seeing any other folks who
8 want to the floor on the sign up list here and so
9 I want to pause for a moment and ask Manuel, if
10 indeed, that is the case, and if so, I want to
11 give the floor to Dan Stetson and Martha.

12 MANUEL CAMARGO: Yes, David, I do believe
13 that you've covered -- we had about five folks, so
14 I think we're covered.

15 CHAIRMAN DAVID VICTOR: Okay. Thank you
16 very much.

17 Dan and Martha, I want to give the floor
18 back to you to help manage the questions in
19 addition to the questions that were raised
20 tonight, a number of questions came in advance, so
21 let's put some of those as well to the folks we
22 have here, especially since we have the benefit of
23 the experts here tonight.

24 So Dan and Martha, the floor is yours.

25 DAN STETSON: Thank you, David.

1 Martha, would you like to go first?

2 CHAIRMAN DAVID VICTOR: Can we stop
3 sharing the screen, so we can see people's faces?
4 Maybe it's just me that's over zoomed. It's nice
5 to see people's faces instead of slides. There
6 you go. Thank you.

7 MARTHA MCNICHOLAS: Okay. Thank you.
8 There were a couple of things that were brought up
9 tonight that were also brought up on the
10 pre-questions, and one is the batch release and
11 safety of the effluent coming out and kind of
12 combine that with how often we sample the water
13 out there, so I think those are all related. Can
14 somebody cover that one?

15 RON PONTES: Dave, do you want me to
16 cover that? This is Ron.

17 DOUG BAUDER: Ron, this is Doug, why
18 don't you cover it. I want to point out at the
19 last meeting, we provided a very detailed
20 presentation on the batch releases and how much --
21 what were the potential biological effects of
22 radiation dose and the fact that we were well
23 under limit. For example, this year I think we're
24 of the 6 millirem dose limit, which is quite low
25 to start with, I think we're only around

1 0.5 percent of that limit for the year so far, so
2 I'll hand it back to you, Ron, if you want to work
3 on the response.

4 RON PONTES: Thanks, Doug.

5 We're at about 0.47 percent of the 6
6 millirem limit so far. I think a better -- a more
7 independent source of information about this I'd
8 like to refer people to the Surfrider Foundation's
9 blog where they engaged Dr. Buesseler from Woods
10 Hole institute and Mr. -- Dr. Buesseler is an
11 expert on radioactivity in our oceans around the
12 world. He's done a lot of studies. He looked at
13 what we're releasing in the oceans here, and he
14 concluded it's completely safe.

15 There's a quote, I might not have it
16 exactly right, but a person swimming here every
17 day of his life for a hundred years wouldn't pick
18 up any radiation hardly at all, less than a dental
19 x-ray. So I think, you know, context is needed
20 here. The releases that we're making are
21 extremely low, and you know, there's already -- we
22 live in a radioactive world, let's face it.

23 A lot of radioactivity surrounds us every
24 day. The oceans unfortunately have some of that
25 radioactivity there. The releases we're making as

1 we discussed many times, and this independent
2 expert, Dr. Ken Buesseler has said aren't
3 contributing anything to the background.

4 The other thing I want to say that is we
5 have a very active radiation environment
6 monitoring program. We share that information
7 with the Nuclear Regulatory Commission, as we're
8 required to in annual reports, and we've gone
9 further. We've agreed to suggestions made by
10 Surfrider in the certification of the EIR to add
11 requirements to share that information on our
12 website in a means that's easily understandable by
13 a layperson, and we post that information. And
14 it's clear that we're not adding any radiation to
15 the environment.

16 You know, so I really think -- and I'll
17 just mention one more thing, there was a webinar
18 today, I didn't attend but it was by a gentleman,
19 a doctor from the UK and, you know, he had a
20 different view on it, but I really think his
21 opinions are really misguided, but I would leave
22 that to the members of the public to look for
23 themselves.

24 I really encourage them to see what's
25 posted on the Surfrider's Foundation website.

1 This is something that they engaged Ken Buesseler
2 for, and we were not part of it. So I kind of
3 leave it at that.

4 MARTHA McNICHOLAS: There were two
5 references to, and I didn't see it, a rebuttal on
6 Greg Becker's article from Samuel Lawrence, and I
7 didn't see that or I don't know if Ron or anybody
8 had seen that, and what was behind that or --

9 RON PONTES: That's what I was
10 discussing. Samuel Lawrence Foundation sponsored
11 a webinar today.

12 MARTHA McNICHOLAS: Okay.

13 RON PONTES: And they invited a lot of
14 people, and, you know, I didn't attend, but my
15 understanding is that that doctor had a different
16 view on things than Dr. Ken Buesseler, but Ken
17 Buesseler is an expert of radiation in our oceans,
18 but personally I would trust him more about that
19 particular subject.

20 MARTHA McNICHOLAS: Thanks.

21 Dan, do you want to go, or do you want me
22 to continue?

23 CHAIRMAN DAVID VICTOR: Dan? Why don't
24 you continue, Martha. I just got ejected from the
25 system.

1 MANUEL CAMARGO: Dan is in the same
2 place. We're letting Dan back in, so go ahead,
3 Martha.

4 MARTHA McNICHOLAS: Okay. I can tap
5 dance for a while, if you want.

6 There are couple of things regarding the
7 crack mitigation and the metallic overlay, and I
8 think that was -- as I recall that was fairly
9 well-documented in the last EP and on the SONGS
10 Community website, but can we clarify that again
11 that about any qualification of that process.

12 JERRY STEPHENSON: Yeah, Martha, this is
13 Jerry Stephenson, I'll take that question. Can
14 you hear me?

15 MARTHA McNICHOLAS: Thanks, Jerry, yeah,
16 I can, I don't know about David and Manuel.

17 CHAIRMAN DAVID VICTOR: Yes, yes, we can
18 hear you.

19 JERRY STEPHENSON: If you can hear me,
20 thank you.

21 First I want to correct the
22 characterization of the nickel overlay as paint.
23 It's much more accurately compared to a weld
24 overlay, because it's metallurgically bounded to
25 base metal, but it has an advantage over weld in

1 that doesn't heat the base metal to cause a heat
2 affected zone, which sensitizes the base metal to
3 cracking, so it's a kind of the best of both
4 worlds there. I call that we -- we refer to it as
5 simply metallic overlay, so that's what I'll call
6 it here.

7 We made a presentation in December as
8 noted in the questions since then. There's been a
9 lot more testing out there. EPRI reported at a
10 meeting last week a very positive development, the
11 metallic overlay process actually impacts --
12 imports a compressive stress layer onto the
13 surface of the base metal.

14 Remember, compressive stress arrests
15 stress corrosion cracking, that's why we did all
16 the peening. That's very positive. Additionally,
17 the Coastal Commission hired a third party
18 reviewer, a very esteemed engineering firm out of
19 New York City called LPI Incorporated. They did a
20 review of a lot of things including the metallic
21 overlay process. They found it to be an
22 appropriate repair.

23 That report -- as far as documentation
24 that report from LPI as well as Coastal Commission
25 staff report that approved the process are both

1 linked on the SONGS Community website.

2 MARTHA McNICHOLAS: Thank you for
3 summarizing that. That is what I remember from
4 our last meeting.

5 CHAIRMAN DAVID VICTOR: Can I just jump
6 on this issue, Martha, for a moment?

7 MARTHA McNICHOLAS: Please, yes.

8 CHAIRMAN DAVID VICTOR: Help us
9 understand this issue with NRC approval. I'm
10 still -- maybe there was covered in the various
11 times I was being ejected from this, does this
12 need to get approved? Would that be something we
13 can do after an event or some situation arose and
14 you needed to get approval and has to be done a
15 specific condition or how would that happen?

16 JERRY STEPHENSON: So the NRC isn't in a
17 position to give us a generic approval,
18 pre-approval to use this process. That's not the
19 way they do business. However, they are very
20 interested in this process because they get the
21 same questions we do about what would happen if
22 there was crack and they're happy that SONGS took
23 the lead in developing this process.

24 They reviewed our process, they reviewed
25 a draft 7248 that we had unofficially in a

1 meeting. We showed it to them. They didn't keep
2 it, because if they kept it, they would have to --
3 I don't know what -- but they reviewed it, they
4 gave it back to us, they didn't have any comments,
5 any negative comments about it. They told us in
6 the meeting that they felt like the metallic
7 overlay process could be used with the 7248.

8 7248 is the process in the Code of
9 Federal Regulations that allows a utility to do a
10 repair in this case without prior NRC approval.
11 So at the time that we need to do the repair, if
12 that should ever happen, we would do our
13 engineering evaluation, we would prepare a 7248
14 evaluation that would conclude that it could be
15 done without prior NRC approval, we would at that
16 time probably get a third party review again,
17 because we always want to make sure that we have
18 all of our ducks in a row, and then we would
19 proceed with it.

20 After we did that, the NRC has the
21 opportunity to inspect all 7248s. They might even
22 choose to inspect a 7248 evaluation before we did
23 the repair. All of those things would be handled
24 at the time that they're needed. It's hard to put
25 something like that on the shelf.

1 CHAIRMAN DAVID VICTOR: Thank you very
2 much.

3 Martha, back to you, and I think we may
4 have Dan back as well. But what do I know?

5 MARTHA McNICHOLAS: Okay. There were a
6 couple of things brought up regarding
7 transportation, and I think one of them is the
8 transportation of the debris that we've already
9 had the first shipment go out and how we monitor
10 that during the transportation, and the other
11 question, I believe, is more related to the
12 transportation of the spent fuel canisters.

13 I don't know if you want to separate
14 those two questions or all be part of
15 transportation.

16 RON PONTES: Hey, Martha this is Ron.
17 I'll take the first part there about the rail cars
18 that we carrying the waste away from SONGS. And
19 so those rail cars are monitored and surveyed for
20 radiation prior to departing the site, and they're
21 tracked until their delivery at Clive, Utah. When
22 they're loaded, the rail cars will meet all NRC
23 Department of Transportation and Federal Railway
24 Administration requirements for radioactive
25 shipments.

1 I think what would be really appropriate,
2 though, would be to ask SDS, our contractor to
3 come back at the next CEP meeting and really show
4 the rail route out of here, out of SONGS and up to
5 Clive and how they intend to move it so that
6 people could understand how that would work
7 precisely.

8 Generally speaking, the rail cars are
9 going to travel over existing rail lines between
10 here and Clive. The possibility that probably
11 going to take some of these cars a little bit
12 south of here to a rail staging area that's just
13 south of the marine corp base until they get a few
14 cars there, and they'll take them onto Clive from
15 there.

16 SDS is better equipped and more
17 knowledgeable, and they can give the details, and
18 I think that would be much better for the public
19 to hear.

20 CHAIRMAN DAVID VICTOR: So we have for
21 procedural reasons, I think the first quarter
22 meeting is going to be very focused on spent fuel
23 and moving it out of here and so on, but I think
24 the second quarter-ish, we've got an invitation
25 our to SDS, a major dismantlement will be

1 underway, and I think we should start organizing
2 some questions around what are the issues around
3 rail, are going to be seeing 100, 120 car trains
4 leaving and how often, so things like that.

5 Back to you, Martha, are you going back
6 and forth at the end?

7 DOUG BAUDER: Actually, David, Ron and I
8 were conversing when this question came in on
9 transportation. We'll put together an appropriate
10 package on that, given the number, magnitude of
11 rail shipments to Clive, Utah, and all those
12 controls that the railway system has including
13 being able to track the rail cars through a GPS
14 system. We'll bring it in. I agree it's a little
15 too much for the first quarter. We'll address it.

16 I think Martha's second -- the second
17 part of the question had to do with the shipping
18 of the fuel canisters, which I'll hand off to
19 Randall for. Randall inserted -- can put together
20 the answer but really the shipping component of
21 the canisters of both the 24 cell design of the BN
22 system and 37 cell design under the Holtec system
23 was covered under part 71, and the specific
24 certificates of compliance for that are on
25 register.

1 But, Randall, if you're still on, if you
2 would provide additional details, that would be
3 great.

4 RANDALL GRANAAS: Yeah, Doug, I think you
5 got it covered.

6 So the NRC does post the certificate of
7 compliances for each transportation cask online.
8 We can provide that link, and you can go to
9 certificate, and you'll see that our canisters are
10 listed as an approved canister to go with that
11 they call package, and that's all online for the
12 three different canisters, which they all have a
13 different transportation cask. I don't think
14 there's much more that I can add to that.

15 MARTHA McNICHOLAS: Thank you.

16 Dan, do you want to --

17 DAN STETSON: Yes. Thank you. I'm back,
18 but I don't know all questions that were asked.
19 I'll jump to some of those towards the end.
20 Charles brought up a couple questions, one of
21 those had to do with the potential liability.

22 Joe, do you think that there's a
23 potential to exceed the \$4 billion in the trust
24 fund and if so, Doug, is there a potential for the
25 SCE customers to be on the hook for some

1 additional costs?

2 JOSEPH HEZIR: I would say that it's a
3 risk factor that cannot be quantified, but if the
4 liability issue would involve if there was some
5 sort of a release or accident when the spent fuel
6 was -- if it was moved off the site, but it was
7 still technically or legally owned by SCE and the
8 federal government did not take title to it, and
9 so that would be, you know, it would be that kind
10 of scenario that would arise, and I think it's
11 very hard to put a number on that right now.

12 But it's something that we identified in
13 our analysis of the alternatives for private
14 storage in an area that we would be very concerned
15 about because it is -- because you cannot quantify
16 it. It is a major risk factor.

17 So it's hard to say right now whether or
18 not it would be something that would bust the
19 \$4 billion budget or not. I guess all I would say
20 I don't think the \$4 billion budget assumes an
21 allowance for that kind of event.

22 DOUG BAUDER: Right. Thank you, Joe.

23 Maybe to talk briefly about the trust.
24 We have a healthy decommissioning trust we
25 discussed the trust more than a few times.

1 There's an allocated portion of the trust to cover
2 nuclear fuel. The way this works is under the
3 Waste Policy Act of 1992, the federal government
4 was to supposed to start taking title of fuel I
5 think by 1998. Joe would have all the numbers,
6 but that did not occur.

7 For SONGS, like many nuclear stations
8 around the country, we periodically enter into
9 settlements with the Department of Energy to
10 reimburse us for costs of things like constructing
11 the ISFSI facilities and the operating and
12 maintenance costs for properly storing and
13 inspecting and maintaining the fuel, and these
14 settlements come in tranches, and when we receive
15 the settlement dollars from the DOE, we simply
16 allocate them back to ultimately through to the
17 customer.

18 So you could postulate for SONGS a
19 scenario where if we go out many, many years, and
20 we're actually looking at that now, what does our
21 trust look like beyond 2050 as we go through our
22 decommissioning cost estimate process for the
23 CPUC, you could go into a scenario where if we go
24 out many, many years, presumably beyond 2050, we
25 would be in a position where we would be directly

1 allocating from the DOE back, and the trust funds
2 would be depleted in the area of fuel. That's not
3 to say we wouldn't have trust allocations
4 elsewhere, so I think it's very premature to
5 assume that we just run out of dollars in the
6 trust to cover the fuel storage and the
7 maintenance, but once again, it's our desire for
8 the federal government to step up and take care of
9 their obligations, which is, in part, to address
10 the title situation that Joe mentioned, because,
11 you know, it wouldn't be a good situation for us
12 to transfer the fuel and not be able to transfer
13 title and still maintain that risk to the company
14 and that risk to our customers.

15 DAN STETSON: Got it. Thank you.

16 I have a question I would like to direct
17 to Tom Isaacs.

18 Tom, as we went through the discussion of
19 the interim storage it was also brought up that we
20 should reevaluate a permanent storage. I know
21 you've been involved with this a long time, and
22 there's some other potential sites besides Yucca
23 Mountain that were identified as potential sites.
24 I guess question number 1 is where are they, and
25 do you think there's a possibility that any of

1 these may be revisited as a potential site for
2 permanent storage?

3 TOM ISAACS: So that's a very good
4 question. I don't think I've been asked that
5 question before, Dan. Those -- when the Nuclear
6 Waste Policy Act was passed, sites were what we
7 called grandfathered in as candidates for the
8 repository. There were nine sites. They were
9 seven in salt, because salt had been seen in the
10 earlier days as a potential good medium for
11 disposing of waste, and the other two were federal
12 reservations. One was at Yucca Mountain, and the
13 other was called Richland, Washington, the Hanford
14 reservation, because it was thought if you already
15 had nuclear activities at a site, maybe there
16 would be some advantages of siting it there.

17 Those were the only nine candidates, and
18 they were evaluated strictly on their long term
19 safety implications. There was no attempt to in
20 any sense to establish a dialogue of leading to
21 partnership with any of those sites in any of
22 those states. It was based on the idea that the
23 site that looks the most promising to isolate the
24 waste for the long term, is the one we should
25 pick. That's how we got Yucca Mountain in

1 addition to the political side of it.

2 Yucca Mountain looked at the time like
3 the most promising site when you looked at long
4 term safety implications. So I think your
5 question I would say if you were to go back, you
6 wouldn't go back and say let's, once again,
7 revisit those specific sites. You would go back
8 and say, We need to find a marriage potential
9 between a site that's suitable, and fortunately
10 the good news is lots of places in this country
11 that are scientifically suitable to isolate the
12 waste and a local community and ultimately a state
13 and if any affected Indian tribes that we can work
14 together to build a reservoir of trust and
15 cooperation and partnership so that we -- all we
16 need is one. We don't need to win the Miss
17 Popularity contest.

18 We need to find one situation where we
19 could make people's lives better in a local
20 community, at the state level, at the regional
21 level while solving this important national
22 problem.

23 DAN STETSON: Thank you.

24 CHAIRMAN DAVID VICTOR: Can I just while
25 you're getting the next question ready, Dan,

1 somebody has put into the online form, can we
2 mention the names of the people asking the
3 questions, because they didn't hear their names.
4 So if that's you, could you go submit the form
5 again and tell us what your name is and how you
6 want to get the floor, and we'll give you the
7 floor. Please do that.

8 And, Dan, back to you or to Martha.

9 DAN STETSON: Okay. I'll do one last one
10 and hand it back to Martha, and this is from
11 Charles Langley, and it has to do with the recent
12 incident, and this is a question, I guess,
13 directed to Doug. Were you required to notify the
14 NRC because of this incident?

15 DOUG BAUDER: Great question, and the
16 short answer is absolutely no. This was an
17 incident that occurred outside of the nuclear
18 power block. It was actually the electrical line
19 that was contacted by the excavating equipment was
20 for the line that feeds the administrative
21 building, so there was no require to report to the
22 NRC operation center.

23 Reflecting on the original question or
24 the comment, back in the 2018 nuclear fuel
25 near-miss event, there was a required report to

1 the NRC operations center that was not made, and
2 SCE was cited for that by the NRC.

3 In this case there was no required
4 operational center report. This was a near-miss
5 event involving nonnuclear components. It
6 affected personnel safety, so we stopped work.
7 There was nobody injured. We did, however, make a
8 report to the NRC promptly, I believe the next
9 morning. I would need to verify that with the
10 licensing folks, but I'm really sure it was the
11 following morning we placed an informational call
12 to region 4.

13 I would encourage anybody who had a
14 question about that to reach out to region 4 if
15 you don't trust what we're saying here, but once
16 again, I and the team here, our desire is to be
17 very open about our successes and things that need
18 improvement around the decommissioning work, and
19 we will continue to share those things.

20 CHAIRMAN DAVID VICTOR: Thank you very
21 much.

22 So is it back to Martha now, Dan?

23 DAN STETSON: Yes.

24 MARTHA McNICHOLAS: Okay. There was one
25 on the pre-questions about debris, dust, and

1 run-off from the dismantling operations, and if
2 that's safe to the public and the environment, and
3 there's the caveat here is acceptable and feasible
4 is not proof.

5 So I know that was addressed in the EIR,
6 but maybe, Ron, you can cover what the mitigations
7 are for any sort of debris and dust.

8 RON PONTES: I would be glad to. Thanks,
9 Martha.

10 Let me start at the beginning here. The
11 decommissioning activities at Edison and its
12 contractor SDS were both required to comply with
13 state, federal, and local laws, ordinances,
14 regulations, you know, the whole thing. And all
15 those mitigation measures that are identified in
16 the -- both the coastal development permit and
17 environmental impact report that was certified by
18 State Lands, so for debris we've got a number of
19 things we have to do. We'll follow the waste
20 management plan, that's APM 1 in the EIR, and that
21 details the waste types and its expected
22 regulatory requirements for disposal, and that
23 plan includes both radioactive and nonradioactive
24 waste streams and how they're processed, packaged,
25 transported and so on to meet all of those

1 regulations that I just mentioned.

2 For dust suppression, you know, the
3 demolition will generate some dust, but we'll
4 control it. As buildings are demolished, they
5 will be sprayed. We'll use water to spray the
6 dust down so it doesn't become a problem. So, you
7 know, we'll water it, we'll cover it, we'll treat
8 it, we'll stabilize it with a dust suppressant.
9 We'll do all those things to minimize the dust
10 from leaving the site. That's another APM, APM 3.

11 And then, you know, trucks will be coming
12 and going from the site too, so we'll be using
13 track-outs to minimize -- shaker plates to
14 minimize dirt and debris getting onto our roads,
15 and all the trucks that will move and the rail
16 cars will be tarped or covered, so there's no
17 fugitive dust emitted from those as they travel.

18 And then just to remind everybody again
19 about the releases that we make about water. We
20 have a couple of things, one is the NPDES permit,
21 that's the National Pollutant Discharge
22 Elimination System permit that we have with the
23 Water Board. That's how we -- that's the permit
24 that allows us to make discharges to the oceans,
25 and it has very strict and stringent requirements

1 that we have to meet, that along with the
2 requirements of an NRC license, so we follow those
3 requirements very strictly.

4 And then there's the Storm Water
5 Pollution Prevention Plan, that's another plan
6 that's approved by state agencies and by the Water
7 Board, and that provides that -- the control so
8 that we're complying with federal, state, and
9 local storm water regulations, so we're following
10 all of those, including best management practices
11 that are implemented along with that.

12 And then, you know, there's other things
13 there's a spill prevention and control
14 countermeasures plan, there's a spill contingency
15 plan, there's a hazardous materials business plan.
16 There's a whole number of plans that we have to
17 comply with.

18 I know that doesn't go to the point of
19 the person asking the question to provide proof,
20 but, you know, we're inspected by federal
21 regulators and state regulators that come to the
22 site and inspect our compliance with these
23 programs to make sure that we're doing what we
24 said we would do and what we committed to do in
25 these permits and licenses.

1 MARTHA McNICHOLAS: Okay.

2 RON PONTES: I hope that helps answer the
3 question.

4 MARTHA McNICHOLAS: And, Ron, while I
5 have your there, this is a question that was asked
6 and I actually have a question to the -- what do
7 they call it -- the intake conduits that are
8 actually out in the ocean. I thought I remembered
9 back with the California Coastal Commission that
10 those were going to be left in place, but there
11 was a question about when those might be removed
12 and how does that fit in the overall schedule?

13 RON PONTES: That's a two-part answer.
14 In this phase of the decommissioning come about
15 2024, 2025 in that time frame we'll stop making
16 batch releases to the ocean through those
17 conduits. We'll close the conduits at that point.
18 And we're going to remove the intake structures
19 off of the intake conduits. There are four large
20 intake structures, and they'll be removed.

21 We'll also remove from the discharge
22 conduits all of the man-way access ports. Those
23 are vertical risers that come off of the discharge
24 conduits, and we'll remove a small number of the
25 diffusers from each of those conduits. Now the

1 horizontal conduits, the big conduits that are
2 installed below the sea floor, that disposition of
3 those conduits won't happen until later.

4 We believe in the future they are likely
5 to be dispositioned to remain in place because it
6 will be very environmental disruptive to pull them
7 out of the sea floor, but right now we don't know
8 how that's going to be finally dispositioned.
9 That will be performed after -- during the period
10 of time we're doing site restoration here.

11 The reason for that is we want to
12 maintain at least one of those conduits available
13 to us in case we have to dewater the site to
14 remove all of the substructures that are below the
15 water table. That's a future item decades down
16 the road.

17 MARTHA McNICHOLAS: Okay. Thanks. That
18 helps clarify it for me too, because I was getting
19 the two under the floor sea floor and above sea
20 floor confused. Thank you on that.

21 Let's see, there was one, and this one I
22 didn't know about but somebody brought up that
23 there was an ad for seeking bids from the cities
24 of Riverside and Anaheim to sell their interest in
25 SONGS.

1 And, Manuel, this may be one for you.
2 I -- you know, this was kind of I don't remember
3 that or where did that come from? Is that -- are
4 those -- do these cities own an interest in SONGS,
5 and why would they want to get rid of it?

6 MANUEL CAMARGO: I can speak to that.
7 There are four either current or former owners of
8 the SONGS. There is of course SCE San Diego Gas
9 and Electric, and that as well we have Riverside
10 and Anaheim. So both Riverside and Anaheim have
11 expressed an interest in transferring their share.
12 Collectively they own about 5 percent or have
13 owned about 5 percent collectively of SONGS and
14 they're looking to transfer that to another party.
15 I can't speak to their motivations for doing so.
16 So that's with the two cities.

17 I would tell you that with SCE and with
18 SDG&E certainly at present we have no plans to
19 transfer our ownership of SONGS.

20 MARTHA McNICHOLAS: Okay. Those are
21 basically all the ones that I kind of understood.

22 Dan, did you have any others?

23 CHAIRMAN DAVID VICTOR: Any other
24 questions, Dan?

25 DAN STETSON: Yes. This would be for the

1 North Wind team and during the discussion you
2 talked about leveraging congressional delegations
3 and also building alliances with other
4 stakeholders to amplify advocacy efforts.

5 Could you speak on that a little bit in
6 terms of how we would do that. Would that be
7 connecting with other utilities and pressuring
8 their local congressional folks?

9 JOSEPH HEZIR: This is Joe, I'll speak to
10 that. I wanted to check to make sure I wasn't on
11 mute here.

12 I think it involves working in two
13 dimensions. Obviously one dimension is the local
14 stakeholders of the business community, the
15 environmental community around SONGS, and then the
16 other dimension that I think gets to your question
17 is the, you know, some of the issues in finding a
18 suitable offsite storage facility is not unique to
19 SONGS but is shared by many other plants.

20 As I indicated, I think there were 19
21 currently are shut down, going through some stage
22 of decommissioning, and there will be more coming
23 in future years, and it covers now 16 states. And
24 so to the extent that there is some commonality of
25 interest there in terms of getting movement and

1 putting pressure on the federal government to kind
2 of, if you will, do its duty under current statute
3 and current contracts, the idea would be to
4 work -- work with the California delegation, which
5 is a very formable delegation in congress and some
6 of these delegations in these other states.

7 I think is David Victor pointed out
8 earlier this is an issue that we're working on now
9 that we'll try and flush out in more detail that
10 will be, I think, very important for the final
11 report, and in particular also for the final SCE
12 action plan that will accompany the strategic
13 plan.

14 So a simple answer is we want to move in
15 two dimensions, the local dimension and national
16 dimension.

17 DAN STETSON: Thank you. That's all I've
18 got, David.

19 CHAIRMAN DAVID VICTOR: Excellent. Thank
20 you very much, Martha and Dan.

21 I want to pause for a moment and see if
22 any of the other CEP members want to come back on
23 any of the questions. I do know the hour is late,
24 but I want to make sure we have the opportunity,
25 and I'm not seeing any of the other CEP

1 microphones open.

2 I see Tom Isaacs, did you want the floor?

3 TOM ISAACS: No, I'm sorry. I apologize.

4 CHAIRMAN DAVID VICTOR: No worries.

5 Okay. Well, thank you very much. This has been a
6 full meeting we're going to go to the last segment
7 here, first some closing comments. First I'll
8 give the floor to Doug Bauder on any closing
9 comments, and I'm going to make two clusters of
10 brief closing comments.

11 Doug, the floor is yours.

12 DOUG BAUDER: Thank you very much, David.
13 I appreciate the engagement tonight. We had a lot
14 of material so I guess we'll look at, you know,
15 how to streamline for the next meeting, but I
16 would say we always say that, and we always have a
17 lot of material.

18 I appreciate those on the SONGS team that
19 were able to step up and provide some of these
20 details, and I appreciate the questions and the
21 challenge. And I've said this before and I'll say
22 it again, the decommissioning is a long path.
23 We're in this project through about 2028, and
24 there's going to be challenges to the project,
25 there's going to be successes. We are going to

1 continue to share that and even getting to a finer
2 point where Ron proposed, you know, the proof
3 answer as to our environmental mitigation
4 controls. I'll tell you as time goes by, we'll be
5 inspected by agencies more and more, we will share
6 those inspections results, we're going to be open
7 it about, we're going to be open about errors we
8 need to improve on, and I think over time the
9 project itself will continue to improve.

10 Last thing I'll say is I really
11 appreciate the sharing by North Wind's team here
12 tonight. I think it was a good way to status
13 where we're at. I like the discussion the around
14 coalition forming, because I think that's
15 something that simply has to be done, and so we'll
16 hear more about that later. Once again thank you.

17 CHAIRMAN DAVID VICTOR: Excellent. Thank
18 you very much. I want to echo what you said at
19 the end there, Doug. I really appreciate the
20 North Wind team, along with Tom Isaacs coming in
21 to talk about something that's still a work in
22 progress, and I know that's awkward I think that's
23 important for us to be more engaged with that work
24 in progress so that we are in some sense ready for
25 the first quarter next year.

1 I also want to thank you, Doug, for all
2 the candor and also for getting -- continuing to
3 bring in members of your team who have frontline
4 responsibility for the different topics so the
5 members of the community can see and learn from
6 the different folks who are responsible for
7 things.

8 I want to draw out very quickly six key
9 takeaways for tonight. Before that, I want to
10 suggest to all of you short sellers out there that
11 I would go after Skype for business. I think
12 pretty dark on them right now.

13 But six quick takeaways. First, we thank
14 tonight Rich Haydon and Paul Wyatt for their
15 service to the CEP. We really appreciate all your
16 contributions.

17 Second, the phase demolition of
18 structures is going to be begin at San Onofre in
19 earlier 2021, and we're going to hear more about
20 that in future meetings very soon.

21 Third is that a full program for
22 monitoring at the fence line realtime radiation
23 levels almost unparalleled to the industry is now
24 in place and is finding, as expected, extremely
25 low levels that are effectively and

1 distinguishable from background.

2 And I also appreciate -- I can appreciate
3 that there are different points of view about the
4 need for monitoring on the top of the NUHOMS
5 system. I'm glad that folks raised their
6 concerns, and I'm glad also that you went and
7 measured. I hope we continue to have a fact
8 focused discussion about where the risks are and
9 where the risks aren't. And I appreciate the
10 update what you're finding at the plant including
11 this trace quarter teaspoon of potassium chloride
12 equivalent at the plant. I think it's a very,
13 very important part of this ongoing transparency
14 that needs to be built and maintained.

15 Fourth key takeaway is about sea level
16 rise. We had a pretty extensive discussion about
17 that. I hope we're going to segment that out and
18 put it up on the website, update it where it
19 needed concerning the robustness of the system
20 against even the extreme H plus plus scenario.

21 Fifth take away is the strategic plan,
22 which we're going to hear about more fully in the
23 first quarter, but we heard about in part today,
24 and it's got all the different elements. It's got
25 questions about where the fuel would go, spent

1 fuel would go, questions about transportation,
2 questions about policy strategy, collective action
3 and so on, and also frankly, sobriety about which
4 options are viable and which options are not
5 viable. So that's very important and that would
6 be on the agenda for the first quarter.

7 The sixth takeaway is just directly on
8 that issue of the strategic plan. What I
9 interpret from what was said tonight is that
10 consolidated storage is the leading option. The
11 site is unknown. It seems not viable to do that
12 without some plan for restarting a permanent
13 repository program, and that's going to require
14 getting communities where that were might be
15 located more engaged, and that is a long haul and
16 has to be done properly was not done properly in
17 the Yucca world, and that's not nature of where we
18 are.

19 And I think the kind of concept that
20 seems to be emerging is we need to ready for WIPP
21 like opportunities, by which it's the concept of
22 how that was done, not the particulars of WIPP.
23 And the concept was to get the pieces in place to
24 the best that's feasible and then work hard to
25 either make sure you know when an opportunity

1 arises or create those opportunities in a
2 responsible way, and that's where I think we want
3 to be learning more about how to turn that into
4 reality and when and how people need to do things
5 to help contribute that to come the new year.

6 So those are the six takeaways that I
7 think come out of today's meeting. I want to put
8 up one slide before we go, which is slide 69. And
9 slide 69 will come on the screen and while slide
10 69 comes up on the screen, which might not
11 actually not happen, I want to say the first
12 quarter meeting, which is going to be roughly
13 March-ish next year, is going to be about the
14 strategic plan implementation. The second quarter
15 meeting, which will be May-ish next year will be
16 about the dismantlement overview, and in
17 particular SONGS Decommissioning Solutions, SDS, a
18 lot of acronyms in this business apparently pause
19 and turn them into English. SDS will be in to
20 talk about what they're doing with the
21 dismantlement. Hopefully we'll get some input
22 from what they learned at other sites, because
23 we're not the first to go through this and a lot
24 of learning has happened, and that will be
25 beneficial. And we need to be attentive to the

1 other kinds of questions that might want to be
2 addressed at later meetings next year and
3 certainly invite any and all comments, send them
4 to us by e-mail or through the e-mail address on
5 songscommunity.com more directly if you've got
6 ideas about other things we should be covering.

7 With that, I want to thank everyone for
8 your patience. We are a bit over time, but not
9 spectacularly so, at least compared to our
10 standard and want to urge you stay healthy.
11 Unusual times, we're going to get through it and
12 have a nice evening.

13 MARTHA McNICHOLAS: Happy holidays to
14 everybody.

15 CHAIRMAN DAVID VICTOR: Indeed.

16 (WHEREUPON THE MEETING WAS ADJOURNED AT
17 8:46 P.M.)

18 (CERTIFICATE OF COURT OFFICER ATTACHED ON
19 FOLLOWING PAGE HEREOF.)
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CERTIFICATE
OF
CERTIFIED SHORTHAND REPORTER

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

That the foregoing proceedings were taken before me at the time and place therein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were placed under oath; that a verbatim record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative of employee of any attorney of any of the parties.

IN WITNESS WHEREOF, I have this date
subscribed my name
January 3, 2021



Certificate Number 12983

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