

In the Matter Of:

Diablo Canyon Decommissioning Engagement Panel

PUBLIC HEARING AND PANEL DISCUSSION

April 20, 2022

Job Number: 870917

1 DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL PUBLIC
2 HEARING & PANEL DISCUSSION APPEAL HEARING

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6 WEDNESDAY, APRIL 20, 2022

7 6:01 p.m. - 9:29 p.m.

8 SAN LUIS OBISPO COUNTY GOVERNMENT CENTER

9 1055 MONTEREY STREET, SAN LUIS OBISPO

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24 Transcribed by: Trudy O'Brien, CSR No. 13641, RPR

25 Job No. 870917

1 DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL:

2 CHUCK ANDERS, FACILITATOR

3 CHARLENE ROSALES, PANELIST

4 SCOTT LATHROP, PANELIST

5 DENA BELLMAN, PANELIST

6 BILL ALMAS, PANELIST

7 DR. TIM AURAN, PANELIST

8 KARA WOODRUFF, PANELIST

9 LINDA SEELEY, PANELIST

10 SHERRI DANOFF, PANELIST

11 MAUREEN ZAWALICK, PANELIST

12

13 ALSO PRESENT:

14 PHILIPPE SOENEN

15 DR. ROBERT BUDNITZ (Remote appearance)

16 TOM JONES, PG&E

17 PG&E STAFF

18 RAHEEL HAROON, Orano Design Engineering Director

19 ROGER MAGGI, Chief Commercial Officer, Orano

20 MEMBERS OF THE PUBLIC

21 SAN LUIS OBISPO SHERIFF'S DEPARTMENT

22 DIABLO CANYON FIRE

23

24

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1 WEDNESDAY, APRIL 20, 2022

2 DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL PUBLIC
3 HEARING & PANEL DISCUSSION

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5 MR. ANDERS: Let's go ahead and begin the
6 meeting. My name is Chuck Anders. I am the facilitator
7 for the Diablo Canyon Decommissioning Engagement Panel,
8 and I want to welcome the panel members, the members of
9 the audience, and everybody on the Zoom webinar to the
10 21st meeting of the Diablo Canyon Decommissioning
11 Engagement Panel.

12 This is a hybrid meeting; so we have -- this is
13 the first time in two years that the panel has actually
14 met in person and the first time they had the
15 opportunity to have a public meeting and have the
16 members of the public here in the audience.

17 Also, we have combined this meeting with the
18 Zoom components; so we also have online participants,
19 and the online participants can view the meeting, and
20 they can also provide public comments and testimony when
21 we get to that portion in the agenda of the meeting.

22 So without any adieu, further delay, I would
23 like to introduce Linda Seeley, a member of the
24 engagement panel. Linda.

25 LINDA SEELEY: Hello. Welcome tonight. My

1 name is -- whatever your name is, Chuck -- is
2 Linda Seeley, and I have been on the panel since 2018.

3 I want to first of all thank you for being here
4 in the audience, and we have a lot of people who are
5 Zooming in tonight; so I want to thank our Zoom
6 participants for being here too.

7 And remember, as a Zoom participant, go to our
8 website and submit comments or questions. This is going
9 to be a meeting, kind of a -- we are going to talk about
10 the cask system that we already have at Diablo Canyon,
11 and we are also going to be introducing you to the new
12 cask system that PG&E has selected for storage of the
13 remainder of the nuclear fuel that will be produced at
14 Diablo Canyon until it closes down in 2025.

15 And I want to review the agenda with you
16 tonight, and there will be time for public comment here.
17 Unfortunately, we do not have the capacity to take phone
18 calls from the public from outside, but you can do it
19 online and those questions and comments will be
20 addressed, I can assure you.

21 We're going to review -- going through this
22 agenda, Kara Woodruff, who is sitting here to my right
23 is going to talk about -- we have created a document
24 called the "Strategic Vision" that we've been working on
25 for the past four years.

1 We have gathered a lot of information from the
2 community, and we have met many, many times ourselves to
3 look at the various issues around the closure of
4 Diablo Canyon and the decommissioning.

5 And this particular part of it, the spent fuel
6 is -- you know, if we don't store the spent fuel safely,
7 the rest doesn't even matter.

8 So Kara is going to go through the panel's
9 recommendations for storing the spent fuel as safely as
10 possible.

11 Then Philippe Soenen, who is down here in front
12 of me, will talk about our current ISFSI, that's an
13 acronym, believe it or not, Independent Spent Fuel
14 Storage Installation, and what we call it is ISFSI for
15 short.

16 And he is going to talk about our current
17 ISFSI, what's stored there, and how it's maintained, et
18 cetera, and he will address, I think, the points that
19 Kara brings up.

20 And then they have applied for a license
21 renewal of that ISFSI, a 20-year license initially. Now
22 we are applying for a 40-year extension to that license.

23 And then we will be followed by
24 Dr. Robert Budnitz, who is a member and I believe the
25 chair of the Diablo Canyon Independent Safety Committee.

1 This is a committee made up of three nuclear engineers
2 who oversee, commiserate with PG&E about issues of
3 safety significance, and they meet here three times a
4 year, and it's an excellent panel that -- where we can
5 find out a lot of information about what's going on at
6 Diablo Canyon.

7 Then we will have a break. Oh, and Dr. Budnitz
8 is going to give a presentation about his panel and
9 address some of the questions we have here tonight, and
10 we will have the opportunity to ask him questions.

11 And then Tom Jones who is a -- I don't see him
12 right here -- but he will talk from PG&E. He will talk
13 about the new cask system, the Orano cask system that
14 was selected by PG&E, and he will also go into some
15 depth about that.

16 And then Bill Almas, our esteemed panel member,
17 will be taking questions, guiding the discussion after
18 that.

19 Chuck Anders will take it from there, and then
20 we will be done. It is going to be a long meeting, but
21 I think it's a valuable meeting. I'm very glad you
22 came. Welcome.

23 And this is not the last of these meetings.
24 This is the first. We will have another one on May 25th
25 to dive deeper into the Orano system.

1 And then we're planning to have an open house
2 on June 4th to do more talking and understanding about
3 this system.

4 It's an incredibly important decision that is
5 being made about this, and PG&E went through a long
6 process to select the system that they did select, and
7 we as a panel were not privy to that selection process
8 because of privacy concerns for -- we just weren't privy
9 to that.

10 And so we are going to be learning a lot
11 tonight along with you. It's not -- this is brand new
12 for us too. Okay. Thanks very much.

13 MR. ANDERS: Thank you, Linda. And I do
14 appreciate your comments. I think it's important to
15 reiterate and set expectations for tonight for people.

16 This meeting is to learn about the new system
17 that was chosen and also learn about how the current
18 system will be managed and licensed in the future.

19 And the purpose of this meeting is to learn and
20 then solicit questions from the public and then members
21 of the panel about the new system that can be answered
22 at the next panel meeting on the 25th, as you said, and
23 that will even be followed by some tours and an open
24 house.

25 So just -- it is important to set expectations

1 about this meeting. And we always have an opportunity
2 to have a safety moment or safety orientation before our
3 meeting begins.

4 So I would like to introduce Dr. Tim Auran to
5 provide the safety orientation. Tim. Can we go to the
6 next slide.

7 DR. TIM AURAN: Thanks, Chuck. Welcome,
8 everyone. We do like to start every meeting of ours
9 with a safety message. In the event of an earthquake
10 make sure you know the safest place to drop, cover, and
11 hold.

12 In case of a fire, make sure you know your
13 exits and escape routes; with those of us attending in
14 person here, those would be through the two sets of
15 double doors in the back.

16 In the event of an active shooter, determine
17 the best option for a safe outcome -- get out, hide out,
18 take out. For those in person, also please remember the
19 San Luis Obispo County Sheriff's deputies are in
20 attendance as well.

21 In the case of a medical emergency, we have an
22 EMT available who has an automated external fibrillator
23 device with him, and the two of us will provide CPR as
24 necessary. For those at home, please just dial 9-1-1 in
25 case of an emergency.

1 If anybody has any emergency issues, please
2 feel free to contact one of the PG&E employees who are
3 dressed in a PG&E shirt who may be nearby.

4 For everyone's psychological safety, please
5 remember be to respectful of one another. A lot of
6 emotions can be involved with these discussions. Please
7 have -- please be mindful of other's opinions when
8 raising your questions.

9 This will be a long night. Try to remember to
10 stretch every 30 minutes or so for 30 seconds. As COVID
11 remains prevalent, if anybody would like to continue
12 wearing a mask, please do so.

13 Thank you, Chuck.

14 MR. ANDERS: Thank you, Tim. Next on the
15 agenda is a PG&E update, and I would like to introduce
16 Maureen Zawalick.

17 MAUREEN ZAWALICK: Thank you, Chuck. Good
18 evening, everybody. So I want to provide a PG&E update.
19 Although the focus of tonight's discussion is on our
20 spent fuel management, I want to give you a general
21 update on the decommissioning project itself.

22 So big picture, the decommissioning project at
23 Diablo Canyon remains on schedule and on budget and so
24 on track overall.

25 And, again, as Chuck and Linda mentioned, I'm

1 excited about this evening's discussion and conversation
2 as it being one of the first -- the present system that
3 we have selected -- but one of the first meetings to
4 gather that input and feedback from the public and from
5 participants so we can form our next meeting on May 25th
6 and open houses and tours at Diablo Canyon and other
7 things to make sure we maximize things happen to that
8 participation as much as we can to get that input into
9 this process.

10 So other things to mention: In December of
11 2021, we filed the next Nuclear Decommissioning Cost
12 Triennial Proceeding with the California Public Utility
13 Commission.

14 So one of the things we have been focused on
15 is, you know, addressing the schedules with that and so
16 forth, data inquiries and data requests that we have
17 been getting from interested parties.

18 There will be a public participation hearing
19 that the California Public Utility Commission will be
20 announcing coming up in the next few months. The
21 California Public Utility Commission is working on the
22 overall schedule for that and if hearings are needed and
23 so forth. So key take away there is that the CPU will
24 host another public participation hearing like they have
25 done in previous triennial proceedings and so forth.

1 Other news to share is this week we did receive
2 approval from the California Coastal Commission for the
3 1,200-acre conservation deed restriction that we have
4 been working on; so Kara wanted to share that with you.

5 Excited about that. Our next steps are to be
6 working with the Port San Luis Obispo Harbor District
7 for approval and then working through some other
8 logistical items. Tom Jones is here to discuss any of
9 that if you would like to.

10 And then, finally, there has been a lot in the
11 news lately from the Biden administration. The Biden
12 administration's \$6 billion Nuclear Program for the DOE.

13 And I just wanted to address some questions
14 that we have been getting on that. First and foremost,
15 you know, Diablo Canyon is not closing because of
16 financial reasons or financial challenges like other
17 plants in the United States are.

18 And that that program, that \$6 billion is
19 focused on -- on those reasons. We are closing, as most
20 of you know, because of the California energy policies.
21 Okay. So, you know, we are committed to the California
22 energy policies, and we are a regulated utility, so we
23 do what the State tells us to do.

24 And, as we know, you know, the position
25 regarding the future of nuclear energy in California was

1 basically introduced in 2016 with our plan to retire
2 Diablo Canyon but also through legislation and then
3 Governor Brown in 2018 approving the closure of Diablo
4 because of the energy policies of California.

5 So we are regulated, we do what the State says,
6 and that's what has been on record since 2016 and 2018;
7 so we are continuing with our preplanning and our plans
8 to decommission Diablo Canyon on its license expiring in
9 2024 and 2025.

10 So with that, Chuck, I will hand it back over
11 to you.

12 MR. ANDERS: Great. Thank you, Maureen. Now
13 we are released to start the discussion of spent fuel
14 storage. We are going to start that discussion with a
15 presentation from Kara Woodruff that is going to review
16 the engagement panel's recommendations on spent fuel
17 storage management and storage.

18 So, Kara, I'll turn it over to you. You have
19 the clicker?

20 KARA WOODRUFF: I do. Let's see if it works.
21 Yeah, it does. Great. First of all, welcome, everyone.
22 It's really great to be in person, and it's been a
23 while, so welcome back.

24 The engagement panel has had an extensive
25 history regarding the issue of how spent nuclear fuel is

1 to be stored and managed from here until many years from
2 now.

3 I wanted to begin the discussion with a brief
4 summary of acronyms that we'll use tonight because it
5 can get pretty confusing, but I think Linda covered most
6 of them.

7 But the one thing I just want to reiterate is,
8 when you hear the word "ISFSI," it simply means the
9 almost parking lot on-site at Diablo Canyon where the
10 spent fuel casks are held.

11 So if you hear "ISFSI," it's just simply a big
12 lot where these casks are on-site. It doesn't mean
13 anything more special than that.

14 So going back a little bit on our history of
15 the panel. We had a couple of workshops that began the
16 discussion back in February of 2019. At that time we
17 had an overview of the spent fuel system, we had
18 presentations by the Nuclear Regulatory Commission and
19 the California Energy Commission.

20 We had presentations by three different
21 manufacturers of casks, including Orano, GNS, Holtec,
22 and, as you know, Orano will be speaking today. They
23 are the entity selected to actually construct the next
24 casks in the future. And then we had a presentation by
25 Kevin Kamps who represents the organization,

1 Beyond Nuclear.

2 The next month we had another panel meeting.
3 We had a presentation by a member of the Independent
4 Safety Committee, which you will also hear from today,
5 and then PG&E provided an overview of their storage
6 strategy and schedule going forward after the
7 decommissioning.

8 And then more recently, last year, we had an
9 update on the ISFSI license renewal, and we talked a bit
10 about interim consolidated storage options, which we
11 will again be addressing in the future; so we've had
12 quite a bit of time devoted to this topic.

13 As a result of these workshops, the meetings,
14 public comments that we have received, a lot of input by
15 experts in the field, PG&E, the community, et cetera, we
16 created a document called the "Strategic Vision."

17 And if you want to see any of the meetings, the
18 agendas, the materials that came out of it, the public
19 comments, you will find it in the Strategic Vision.
20 It's easy to find. You just go to the website that's
21 named on the site here DiabloCanyonPanel.org, and you
22 can search the panel meetings and get as much background
23 information as you would like.

24 As a result of all of this public input, we did
25 include in our Strategic Vision a number of

1 recommendations of this panel concerning the future of
2 the storage of spent nuclear fuel.

3 And you can find an extensive list of those
4 recommendations on page 98 and 99 of that
5 Strategic Vision.

6 Also, if you want a bullet-by-bullet list of
7 all the recommendations, you can look on the panel
8 website, and there is a link called "resource
9 materials," and on that is a complete list of our
10 recommendations and PG&E's response as to the status of
11 those.

12 But if you take a look at our recommendations,
13 they kind of fall into five different categories.
14 Number one, the timing of the offloading of those
15 materials. And just as a sidenote, when you off-load
16 nuclear fuel, it goes from the reactor to spent nuclear
17 pools, and then after being there for some time it then
18 goes to the ISFSI or the dry cask storage. That's the
19 cycle. So, in general, we had a lot of recommendations
20 on the timing of that cycle.

21 We also had recommendations regarding the
22 features of the casks, the management of the casks, a
23 recommendation regarding the management of the storage
24 facility itself, and then we had recommendations
25 regarding the transport of the spent nuclear fuel to an

1 off-site repository.

2 So I am going to go through these briefly one
3 by one. On the timing of the offloading, it's been an
4 interesting history. The casks that are now in dry cask
5 storage were in the pool after they left the reactor,
6 typically, about ten years.

7 In 2015 PG&E filed its triennial report, and
8 the goal was to change that time period to seven; so it
9 would go from the reactor, in the pools for seven years,
10 and then out to the ISFSI.

11 By 2018 that time frame was reduced to four
12 years. By 2021 that document that was filed just in
13 December, the goal was 3.25 years, and now the proposal
14 by Orano for the new casks will be less than two and a
15 half years.

16 Shorter time frame definitely supported by the
17 panel. It's supported by a 2020 UCLA report that took a
18 look at the safety of various offloading campaigns.

19 There's a general consensus that getting into
20 the dry cask as soon as possible is the safest method,
21 and we can show absolute good progress on that cycle. I
22 think that does leave the question open as to whether
23 two and a half years is maybe too short, and I think the
24 panel would be interested and wondering whether we need
25 additional studies on that question.

1 But, in general, this is moving in the right
2 direction, and I think the panel can be very pleased
3 with that progress.

4 The second issue really focused on the features
5 of casks themselves, and that is what we are focusing on
6 at today's meeting, and Orano is going to make a
7 detailed discussion about the proposed dry cask storage
8 going forward.

9 The concerns that were raised by the panel are
10 listed here on the slide. Generally speaking, we are
11 looking for a cask that has overall safety and
12 protection indefinitely against radiation exposure,
13 primarily for the workers, but also for the community.

14 We want to know: Can it withstand a jet crash
15 test? Is it sufficiently defensible against terrorist
16 activity? How about corruptions from coastal elements
17 and tsunamis? The various general things that might
18 threaten the viability of these casks going forward.

19 We also were very interested in making sure
20 that the casks can withstand any kind of seismic
21 activity. As you know, this is a very seismically
22 active region of the world, and we certainly want our
23 casks to be able to handle anything that would come from
24 that direction.

25 We are looking for 24-hour monitoring of the

1 radiation that could be occurring on-site. We want our
2 casks to be fully inspectable, fully retrievable, have
3 the capacity to be repackaged, repaired as needed, and
4 then ultimately transportable to an off-site facility
5 away from the coast.

6 The status on this is really unknown, and
7 that's why we are here today. We hope to hear from
8 Orano and hear a lot more about the details of the
9 casks, and we hope and expect that it will meet all of
10 these standards and objectives and more.

11 The third issue is the management of the casks
12 themselves once they are out there on ISFSI. I think
13 you can summarize these three bullets by we are looking
14 for training and supervision of the people that are
15 doing the cask loading, the management of it, the
16 monitoring; making sure there's sufficient funding to
17 manage these casks into the future; and also the
18 development of what they call an "Aging Management
19 Program." Are we adequately looking at these casks,
20 monitoring when they are aging elements like corrosion
21 from the salt air, et cetera, and can we respond to
22 that?

23 In general, I would say we had a lot of
24 progress made on this point. In that 2021 NDTCP
25 Triennial Report by Diablo Canyon, it does include

1 programs and details about radiation monitoring.

2 In the license renewal application for the
3 ISFSI there's a lot there about the Aging Management
4 Program; so I think there's a lot of information and
5 good progress that has been made on this front.

6 I found, personally, getting that information
7 is a little difficult. It's kind of hard to follow; and
8 so, from my perspective, one recommendation, PG&E might
9 make that information in a much more readable,
10 accessible format so that we really understand about how
11 these management activities will take place going
12 forward.

13 The fourth recommendation area was related to
14 the ISFSI itself. And there was a recommendation
15 contained in the Strategic Vision that, to prevent
16 corrosion due to coastal location of the ISFSI and
17 natural degradation that could occur over time, does it
18 make sense to look at, to study, to conduct a
19 feasibility assessment of enclosing all these dry casks
20 in some kind of containment structure, possibly one
21 that's controlled by climate.

22 On this recommendation no progress has been
23 made. I think we asked for that study. It hasn't been
24 pursued at all, and I think that is something for us as
25 a panel to consider whether we really want to urge PG&E

1 to look into this issue.

2 It might be something that is very important
3 for the future. Maybe it doesn't pencil out. We have
4 not seen these studies, particularly how they relate to
5 Diablo Canyon and what that might mean for the
6 protection of the casks going forward.

7 And then, finally, there were a lot of
8 recommendations about the transportation of these casks
9 ultimately away from the site.

10 The majority of us recommended transportation
11 of casks away from Diablo Canyon to a more interior
12 location in the United States as soon as some kind of
13 consolidated facility was available to accept those.

14 There were a minority of the people on the
15 panel who believe that the casks should actually stay
16 on-site until a permanent, federal consolidated facility
17 is constructed.

18 The status on this is absolutely uncertain.
19 There are no licensed facilities in the United States
20 that can take any kind of nuclear waste right now. This
21 is a topic -- I think it's really, really important. We
22 are in a seismic zone, we are by the coast at a time of
23 rising sea waters.

24 Ultimately, it is my opinion that we should get
25 those casks off the coast and into a safer location, but

1 there's no place to go right now; so I think we're
2 hoping by the end of this year we will have another
3 meeting of the panel to discuss that issue.

4 That summarizes the recommendations of the
5 Strategic Vision, and back to you, Chuck.

6 MR. ANDERS: Great. Thank you, Kara. I just
7 want to mention that the panel actually had -- if I
8 recall right now -- two two-day workshops and multiple
9 public meetings where they heard from experts and also
10 many, many members of the public within the community
11 about the issues of management and storage of spent
12 fuel, and these recommendations are a result of all of
13 that input from the community and from a whole range of
14 experts.

15 Before we begin or next discussion, we are
16 going to have a short opportunity for public comment
17 after the next series of presentations.

18 And this meeting is really divided into two
19 parts: The first part is talking about the current
20 casks that are in place right now and how those casks
21 will be licensed in the future and managed in the
22 future.

23 The second part of the meeting is talking about
24 the new cask system that was just selected by PG&E that
25 allows for the faster loading of spent fuel into the

1 casks, the dry cask storage.

2 So we have a short -- we have a question --
3 opportunity for public comment after each one of those
4 two segments.

5 So for those folks who would like to make a
6 public comment on the existing system, which is what our
7 next part of the presentation is going to be about,
8 please go and grab a blue card up here and fill out that
9 card and hand it to one of the folks in the blue shirts
10 here that are supporting the meeting.

11 And for folks that are listening online, go
12 ahead and raise your hand if you would like to make a
13 comment on the existing system.

14 There will be another opportunity for public
15 comments toward the end of this meeting after we hear
16 about the new system that is also being proposed and
17 that was just selected. And so let's jump into the
18 discussion with the new system.

19 And we are going to hear from Philippe Soenen
20 who is going to discuss the existing system, the
21 inspection process, and the licensure process. And
22 Philippe in charge of the regulatory process of the
23 decommissioning for Diablo Canyon. Go ahead, Philippe.

24 PHILIPPE SOENEN: All right. Good evening.
25 So, as Chuck mentioned, my name is Philippe Soenen. I

1 am the decommissioning environmental licensing manager,
2 and what I'll be discussing is providing an overview of
3 the background of our current system at our dry cask
4 storage at the ISFSI.

5 I am going to be talking about the design,
6 capacity, and the capabilities to address some of the
7 items that Kara listed there.

8 Also, the inspections and the results; so we
9 are going to go through some of those details that are
10 in our license renewal application, and then,
11 specifically, the status of our license renewal.

12 So to go onto the background. I won't spend a
13 lot of time on this because we've discussed the system
14 in the past. But the primary thing I want point to out
15 here is that we've done seven loading campaigns. We
16 have 58 casks loaded on the ISFSI, 32 fuel assemblies
17 each, and we will go through that. I will go through
18 the subcomponents and really what that leads to for the
19 incapacabilities and the inspection results.

20 So to go into the three main items for the
21 design capacities and capabilities: So for the specific
22 components. So on the right here I have got a picture
23 of the model that we used for presenting this
24 information.

25 So there is a stainless steel, multipurpose

1 canister that contains the fuel assemblies, 32 fuel
2 assemblies per canister, and then that canister is
3 stored within the overpack.

4 But for the multipurpose canister, that is a
5 stainless steel canister that is welded, and the
6 dimensions we have talked about in the past, but the
7 wall thickness is a half inch, and then there's thicker
8 lid and baseplates for that, all stainless steel,
9 integrally welded; so it's considered to be a pressure
10 vessel.

11 Then for the overpack, it's a one inch inner
12 concentric, metal carbon steel that's coated, and
13 there's also a one inch outer ring. In between those
14 two shells it is filled with concrete, and that provides
15 the shielding for the system.

16 There are venting systems; so it's a passive
17 cooling. Cold air comes in through the bottom, passes
18 along the side, and warmer air comes out the top. It's
19 a passive cooling system.

20 For that, specifically, the overpack, it's
21 carbon steel that's coated; so it's important for the
22 inspection results, and what you are going to see in the
23 pictures, they just look a bit different.

24 So to cover the inspection requirements. So
25 the recurring inspections that we do right now is we do

1 visual inspections on the exterior of the overpacks on a
2 recurring basis. We make sure that the vents are clear
3 so that the passive cooling continues.

4 We do the concrete pad inspections. We also do
5 radiation surveys. So that makes sure -- that's one of
6 the ways that we validate there's nothing unusual going
7 on; so that's for around the area, and we get the
8 radiation surveys.

9 And then for whenever we have to use a
10 transportation equipment, we do preservice inspections
11 to make sure it can handle the load equipment, and all
12 of that is performed before we lift anything.

13 As was mentioned by Kara, in our current
14 application orders, filing for the triennial
15 proceedings, we have requested or included in our cost
16 estimate a realtime radiation monitoring.

17 And what's envisioned for that is to be a
18 monitoring system that's around the perimeter; so
19 regardless of the current system or the new system, we
20 will have that capability to monitor the radiation
21 levels, and that will be provided to regulatory agencies
22 for the interpretation and being made available to the
23 public. So that is planned to be installed. We are
24 asking for that within our filings.

25 So part of the capabilities: So some of the

1 things that we have demonstrated with our preapplication
2 inspections with license renewal -- accessibility.

3 So for our multipurpose canisters, we were able
4 to use a robotic crawler, which is in the top right
5 picture there; so they are very compact systems with
6 video probes.

7 It's magnetic; so we can then -- as shown in
8 the lower picture, we lower it in through the top vent.
9 It's magnetic, so then it crawls down the side, and we
10 can get a high-quality visual through those video probes
11 of both the multipurpose canister surface and the inside
12 of the overpack.

13 For retrievability -- so all spent fuel
14 systems, dry cask storage systems, are required by
15 federal regulation to be retrievable, and the
16 retrievability can be defined at the canister level.

17 So that's the ability to safely remove fuel
18 from storage for further processing and disposal, and we
19 do that at the canister level. So we maintain the
20 capability to transfer the multipurpose canister into a
21 transportation canister -- or we will talk about the
22 repairability -- but the retrievability, we have that
23 capability within our current system.

24 For repairability, one of the things you need
25 to have is for access, accessibility in situ; so as it's

1 stored right now and with the preapplication
2 inspections, we demonstrated we do have accessibility to
3 do those any future repairs.

4 At San Onofre Nuclear Generating Station,
5 SONGS, they have demonstrated the capability to apply a
6 surface repair, a cold spray; so it's been
7 demonstrated -- it's possible down there on a vertical
8 system similar to what we would be able to apply here.

9 With that information, the Department of Energy
10 is doing additional research through the Pacific
11 Northwest National Laboratory to support that
12 application process and cold spray surface repair
13 capability to then go into the ASME, which is American
14 Society for Mechanical Engineers -- that's the code that
15 is a requirement for pressure vessels -- you have that
16 being incorporated into a code to then be reviewed and
17 either approved or endorsed by the Nuclear Regulatory
18 Commission in the future as an allowed prepared process.
19 So there are items in process or ongoing activities to
20 help with repairability in situ, so in storage
21 facilities, being able to repair cracks.

22 So for the inspections that were performed, we
23 are going to -- in a few slides here we will actually
24 show some of the pictures, imaging. But for
25 orientation -- so we went through a top vent. We

1 removed the -- there's a screen, so we removed the
2 screen.

3 And then the robotic crawler goes in, and then,
4 because it's carbon steel, it is able to magnetically
5 stick to the wall. They drive the robotic mechanism
6 down, turn, and then scan back up or the same
7 orientation.

8 But we have scans of both, as shown in the
9 image next door -- or in the next one over is both of
10 the multipurpose canister and of the overpack surface.
11 We are doing -- looking at both surfaces for aging
12 management.

13 And we have a very high percentage of
14 accessibility; so we can see a lot of the surface area,
15 and that's allowed by the NRC. You don't have to be
16 able to look at all of the surfaces but a representative
17 amount. We have a very high percentage, over
18 90 percent, of the surfaces as a good representation of
19 how the overall canister and overpack is performing.

20 So now to go into the actual inspections and
21 some of the results. Sorry. This mouse is not
22 cooperating too much. All right. So for the
23 multipurpose canisters, we have actually performed
24 visual inspections in 2014 and 2021.

25 So in 2014 that was in a joint effort with

1 EPRI, and we actually looked at two multipurpose
2 canisters -- the ones that are circled in blue -- so
3 they were visual inspections of the multipurpose
4 canisters and looked at the surfaces and also for any
5 contamination that was identified. There were swabs to
6 look at if there were any deposits on the multipurpose
7 canisters.

8 Then in 2021 we actually did our licensed
9 removal preapplication inspections. We looked at the
10 eight locations shown in orange. So we did look at the
11 ones from 2014 again for trending purposes.

12 But of those eight areas, we looked at all
13 eight multipurpose canisters, did the visual inspections
14 using the crawlers, and then we also did a visual
15 inspection of the overpacks, both the exterior and then
16 with the camera for the interior. We took radiation
17 readings from the vents as we did those inspections.

18 Then we also looked at the storage pads; so the
19 concrete inspections. And we also looked at the
20 concrete inside the cask transfer facility.

21 So for the actual inspection results from the
22 multipurpose canisters: So we are going to go -- on the
23 next slides we will have some example photos -- but the
24 overall conclusion is that the multipurpose canisters
25 are in good overall condition.

1 There's no challenges to its safety or intended
2 functions prior to the next inspections. They are in
3 good condition.

4 The degradation rates versus the margins that
5 are indicated -- there is no need to shorten the
6 proposal of five-year inspection rates frequency. The
7 five-year inspection frequency is based on the Nuclear
8 Regulatory Commission's guidance documents.

9 That's the base that you start with, that you
10 make sure that your site doesn't experience anything
11 different or unexpected. Our inspection results are
12 consistent with the regulation guidance documents; so we
13 are proposing the five-year inspection frequency as a
14 starting point.

15 Part of those results, even the multipurpose
16 canisters, they are stainless steel, but with stainless
17 steel you still expect to have negligible general
18 corrosion or some rusting.

19 Over time there will be an iron oxide layer on
20 the surface, and it pacifies, and you don't have any
21 accelerated or further rusting expected after that
22 initial surface oxidized layer is formed. The depth
23 measurements that we found through some of these
24 inspections, they were all less than the maximum
25 allowable depth that have been previously approved for

1 the system.

2 And then the corrosion rates demonstrate that
3 there's no propagation for the 60-year life; so it's --
4 to partly put that into perspective here, we have an
5 example.

6 So on this figure here, if you look at the
7 total width of the grey, green, and orange, that
8 represents the half-inch canister thickness, and what
9 the ASME code requires is a minimum thickness, wall
10 thickness, of .45 inches.

11 The deepest indication that we found during our
12 inspection was .014 inches, and that's represented in
13 orange. And to put that into perspective, that's less
14 than four sheets of paper. If you stack it up, that is
15 the width or the depth that we are talking about.

16 So the green that's identified here is the
17 margin before you would get to a minimum, as-new
18 required thickness. That is why we have confidence and
19 we believe that the five-year inspection frequency is
20 appropriate.

21 We will continue to monitor these, any
22 indications, and make sure there is no accelerated
23 degradation, and anything that we identify will be put
24 into our Corrective Action Program for evaluation if
25 there is any action or trending needed going forward.

1 So we are going to go into some of the actual
2 inspection imaging. And just to put it into context
3 of -- when we talk about stainless steel, most people
4 are most familiar with stainless steel as far as, like,
5 the highly polished kitchen appliances.

6 These canisters are not polished; so they have
7 a relatively rough texture to them. If you look at it
8 closely, like in the right picture there, they almost
9 have like an orange-peel texture to them; so when you
10 see that in the images coming up, these are not polished
11 surfaces. So that is expected that there is some
12 gradation in coloring.

13 So to help put the orientation of this -- so in
14 the top right of the slide here we have the view
15 orientation looking down into the annulus; so these
16 pictures are from a camera that was put into the vent
17 looking down.

18 And what you are seeing -- we'll go from the
19 left image here -- this is the multipurpose canister
20 surface, and these are examples of -- we have a seam
21 weld that's identified here and an example of staining
22 that we see, so discolorations. That could be from
23 liquids that's -- rain water that's come in and has sort
24 of dried out. Just some staining identified. You can
25 also see the overpack inside.

1 Now, we do have some indications of scratches,
2 very shallow. There were no depth measurements or
3 significance of there; so those scratches could have
4 come from the manufacturing-delivery process as we are
5 moving this equipment around.

6 But as part of the acceptance criteria of
7 bringing these multipurpose canisters on-site, they had
8 to meet the wall-thickness requirements for acceptance.
9 There are specific requirements for that, and they all
10 passed those before we put anything into service.

11 So for these examples, here we have got some
12 rust spots again. The same orientation. The crawler
13 looking down into the annulus between the multipurpose
14 canister and the overpack.

15 For the MPC surface here, we had some rust
16 indications. The rust -- the deepest measurements for
17 rust that we found was .008 inches; so roughly two
18 sheets of paper thickness. And puts them -- some
19 margins in there, talked about the margins that we have;
20 so these have no impact on the actual canister
21 capability.

22 And the five-year frequency is appropriate for
23 trending, taking a look at, make sure nothing else
24 changes. We don't expect there to be anything beyond
25 the initial buildup with the oxidized layer, and then we

1 will trend that going forward.

2 We also identified what we are calling divots
3 or gouges. That would be the deepest measurement that
4 we identified was .014 inches; so, again, that's about
5 four sheets of paper thick.

6 Those could have been, again, through
7 manufacturing process, transportation. Again, they all
8 had to meet the thickness requirements before they were
9 put into service. All of these are in our Corrective
10 Action Program from onward going forward.

11 Also, so part of the overpack examinations --
12 the conclusions are they are in overall good conditions,
13 no challenges to the safety or intended functions, and
14 the five-year frequency is what's recommended by the
15 Nuclear Regulatory Commission guidance documents.

16 What we identified when there was anything as
17 far as paint chips or coating damage, we didn't see any
18 base metal penetration; so it's just superficial rusts
19 that were identified where there were any coating
20 damages; so those were put into corrective action for
21 future cleanup and touchup on the coatings.

22 All of the corrosion or depth measurements that
23 were -- measurements that were taken, all less than the
24 maximum allowable depths already analyzed; therefore,
25 there was no impact to their intended functions.

1 So the overpacks are subject to our routine
2 inspections, including daily walkbys and looking from
3 the operators. We talked about some of that in the last
4 slide set.

5 And the expectation at the plant is anything
6 that is noticed that's not normal or not expected, it
7 all gets put into our Corrective Action Program. We
8 have a very low tolerance for putting everything from
9 monitoring into our system.

10 So some of the examples that we have for the
11 overpacks. We identify some deposits or staining here
12 is what we've identified as some material at the bottom
13 of the overpack.

14 And then these are the types of examples of
15 some superficial rust. There was some paint chipped off
16 and some minor superficial rust identified there. And
17 to put it into context, these are from inside the
18 annulus for the left and down by one of the anchor
19 locations on the right.

20 This is one of the -- a divot that was
21 identified, an example of a divot. These are all minor
22 items. They meet all the acceptance criteria of being
23 in service. You can see this is -- the coating is still
24 intact for this surface.

25 So in addition to inspections that we performed

1 for licenses renewal, we did do soil sampling in two
2 locations. So in the picture off to the right here, we
3 have two sample locations; so we actually take soil
4 samples, and that's a recommendation to determine that
5 it's nonaggressive soil.

6 And the concern there would be as you want to
7 make sure that there's no additional aging that could
8 occur to the concrete for the ISFSI pads.

9 Our results demonstrated that the soil around
10 the ISFSI is nonaggressive, and we will continue to do
11 periodic, the five-year frequency, taking other samples
12 to make sure that nothing of the chemistry changes that
13 would have a potential impact on the concrete long term.

14 We also did concrete inspections. So the
15 example here is with the crack scale, and we did -- you
16 do expect there to be some cracking -- but then it's --
17 you measure the sizes.

18 There are acceptance criteria for the size of
19 the crack, and those are all mapped and then monitored
20 to make sure there is no acceleration or unexpected
21 spalling that would potentially have any impact on the
22 safety functions. There is nothing that's of concern.
23 It's all standard expected indications.

24 We also looked at cask transfer facility. We
25 had five indications, and those were all put into our

1 Corrective Action Program.

2 So as mentioned, we did also do some dose
3 monitoring. So we did do a -- we took dose rate
4 measurements from the upper overpack vents. So in
5 normal configuration, 1.2 milligram per hour was
6 identified as the highest from any of the vents.

7 That's at less than 4 percent of our licensed
8 value; so that's what the allowable or expected within
9 our licensing basis.

10 So relatively low dose rates. And, for
11 example, we show here for -- in comparison, if an
12 individual is 40-foot away at the ISFSI boundary, that
13 would equate to .018 milligram per hour. In comparison,
14 for a dental X-ray, that's .4 milligram per hour -- or
15 mrem for that activity; so it is a low-dose activity.

16 Panel members, you have been out to the site,
17 you have been on the pads, you have been in close
18 proximity, and no measurable dose or very, very low dose
19 from that time you have been out there; so it is a low
20 dose area.

21 So the key takeaways from the inspection
22 results is that PG&E, we performed an industry-leading
23 number of inspections on eight of the locations.
24 Findings reinforce that there is no compromise to safety
25 functions.

1 We believe the frequencies are appropriate,
2 consistent with the Nuclear Regulatory Commission's
3 guidance documents, and then we have made inspection
4 results publically available, included in our licensing
5 application that was submitted to Nuclear Regulatory
6 Commission, and we shared those results with the nuclear
7 industry.

8 We will continue to do periodic system
9 inspections to ensure that there's no loss of intended
10 functions.

11 The frequencies are intended to be set up that
12 you would always identify anything; you would have time
13 to take corrective actions before there would ever be an
14 impact on the system's functions.

15 So we will continue to monitor those and trend
16 any information we find from those periodic inspections.

17 So next I will change gears here to the actual
18 License Renewal Application. So there has been a
19 relatively long process. For about a year and a half we
20 actually did the License Renewal Application preparation
21 identified in this center part here.

22 We had a preapplication meeting with the
23 Nuclear Regulatory Commission, and we also had a safety
24 committee and technical advisory board review, and then
25 we provide the actual application, and we submitted that

1 on March 9th of this year.

2 We are waiting for the acceptance of the
3 application from the Nuclear Regulatory Commission.
4 That usually takes one to three months; so we are
5 expecting a response to that in about the next month or
6 so.

7 And part of that process, then, is, once it's
8 under nuclear regulatory review, we also have an
9 application -- or excuse me -- a submittal in with the
10 Coastal Commission that's associated with the ISFSI. On
11 the next slide we will talk about that a little bit.

12 But they'll also identify here, along the way
13 there's been opportunities for public participation, and
14 I'll specifically talk about the opportunity to request
15 hearings as part of the Nuclear Regulatory Commission's
16 safety review of our application.

17 And we expect that review to take two to three
18 years for the application with the NRC.

19 So for the Nuclear Regulatory Commission --
20 it's a safety review is one portion of it, and that will
21 be documented in a publicly available document that is
22 the safety evaluation. That will be made available on
23 our website.

24 Then the environmental review is in accordance
25 with the National Environmental Policy Act, NEPA, and

1 that will -- the results to that will be documented in a
2 publically available environmental assessment. It also
3 will be available on the Nuclear Regulatory Commission's
4 website.

5 And as you mentioned, we are doing a California
6 Coastal Commission review, and that's to evaluate
7 consistency with the California Coastal Management
8 Program and Coastal Zoning Management Act.

9 So the next steps in public participation -- so
10 after the NRC deems the License Renewal Application
11 sufficient -- as I mentioned, usually takes one to three
12 months for that after summation -- there will be a
13 notice posted in the Federal Register.

14 Part of that Federal Register, there's a notice
15 announcing a six-day opportunity for interested parties
16 to request hearings regarding the renewal, which as
17 Linda mentioned earlier, that's for a 40-year extension.
18 We've got 20 years. We will go for a 40-year extension.

19 And it will also give instructions on how to
20 file a request for a hearing. PG&E, we will notify the
21 panel. Once the Federal Register notice is there, if
22 you don't receive it directly on mailing, on the
23 LISTSERV, we will provide the update and the links to
24 that for your information.

25 And that's the end of my presentation. I know

1 there will be questions. I covered a lot of information
2 there. And, Chuck, just double check on the process.

3 MR. ANDERS: Great. Thank you, Philippe. We
4 will hear from Dr. Budnitz, and then we will have an
5 opportunity for the panel to discuss the presentations
6 and ask questions.

7 And then we will have an opportunity for the
8 public to submit their comments or questions after that.

9 So we are very fortunate to have with us
10 tonight via Zoom Dr. Robert Budnitz. Dr. Robert Budnitz
11 is currently chairman of the Diablo Canyon Independent
12 Safety Committee.

13 And, Robert, are you online?

14 DR. ROBERT BUDNITZ: Yeah.

15 MR. ANDERS: Great. Why don't you go ahead
16 with your presentation.

17 And if we can project Dr. Budnitz's video
18 screen up on the screen, that would be helpful also.

19 Go ahead, Robert.

20 DR. ROBERT BUDNITZ: I am going to talk on
21 slides; so -- but I don't know. First, can you see me?
22 There I am. I can see me. Thank you very much. All
23 set? Just give me a moment.

24 MR. ANDERS: Go ahead with your presentation.
25 It looks like we are getting an infinite mirror image

1 when we try to project you on the screen here; so we
2 will work on the tech stuff. We want to hear what you
3 say.

4 DR. ROBERT BUDNITZ: I am just going to go
5 ahead. My name Robert Budnitz, Paul Budnitz. I am
6 speaking from my home office in Berkeley, and this
7 presentation is going to -- I am here because I have
8 been a member for several years, for many years, of the
9 Diablo Canyon Independent Safety Committee.

10 And right now I am serving this year as the
11 chair. The chair rotates among us. It is not a
12 particularly honorific position. I just happen to be
13 the chair this year.

14 But what I want to start with is what I'm going
15 to say here is not the position of the committee. The
16 committee only takes these positions when we do
17 something in writing at a public meeting, and we vote on
18 it, and so on.

19 So I am going to present my own personal view,
20 although I believe that what I am going to say
21 represents the views of the rest of us, but that
22 disclaimer is just to make sure that you understand what
23 the status is.

24 I am going to start out briefly by describing
25 what the committee is. Diablo Canyon Independent Safety

1 Committee has been in existence for about 30 years, and
2 it is appointed by the State of California, by the
3 State of California officials through the Public
4 Utilities Commission.

5 It consists of three members; I am one of them,
6 and we serve three-year terms. Every three years my
7 term is up, and then a year later somebody else comes
8 up.

9 There are three of us, and one of us is
10 appointed by the governor, and that's Per Peterson,
11 professor of UC Berkeley and engineer.

12 One of us is appointed by the
13 Energy Commission -- that's Peter Lam. He's appointed
14 by the chair of the Energy Commission, and he is a
15 retired NRC nuclear expert.

16 And my appointment is from the attorney
17 general, and I spent my career mostly as a consultant on
18 nuclear reactor safety, and I have a lot of expertise in
19 seismic and whatnot.

20 The committee's charter -- to describe it just
21 in a very short few words is our charter is to review
22 the operational safety of the plant, and having reviewed
23 the operational safety of the plant, we write reports,
24 and we have an annual report that reports what we do
25 that we make public to the public.

1 And in addition we have three public meetings
2 every year -- one in February, one in June, one in
3 October -- that are -- we hold them in Avila Beach, and
4 they are available to members of the public.

5 You can even watch our previous public meetings
6 by going to our website and looking at the recordings,
7 two days, and members of the public come to those public
8 meetings, and we ask for and get presentations from PG&E
9 and prior experts about the safety of the plant.

10 Now, our principal charter is even measured by
11 its services, but let me explain. Our principal charter
12 is the operational safety of the plant, but our
13 concentration over all these years has been the
14 operating two-unit nuclear power plant station out there
15 by the site because, of course, the safety of that plant
16 is the primary importance.

17 We have also, all this time, among other
18 things, reviewed the safety of the spent fuel in the
19 spent fuel pool.

20 We have reviewed the safety of ISFSI and the
21 spent fuel facility. We reviewed the transportation
22 from the spent fuel pools up to the ISFSI, and we have
23 been doing that right along as part of our
24 responsibilities.

25 But, frankly, we've spent most of our --

1 probably 90 percent of our time reviewing the
2 operational safety of the operating units.

3 About two or three years from now, when the
4 plant has ceased making electricity, our charter is
5 going to change because the plant won't be running.

6 And after that our principal charter is going
7 to review the operational safety of the operations in
8 managing the spent fuel.

9 Some of the fuel will be in the spent fuel
10 pools, there's some already in the ISFSI, and there will
11 be more going there. There's transfers.

12 And we are going to concentrate, when the plant
13 has shut down and stops making electricity, we are going
14 to transfer our effort from just partially looking at
15 that while we are looking at the other thing to that's
16 the principal thing we are going to be looking at.

17 We're also going to be looking at the safety of
18 decommissioning activities, put principally we are
19 worried in part about the fact that it's possible that
20 the decommissioning activities could be interfering with
21 the safety of the spent fuel, and we want to make sure
22 that doesn't happen. And if it does, we will be
23 reviewing that and calling attention to it. We hope it
24 won't. Of course, you never know, and we're going to be
25 reviewing that.

1 Now, you should know that our committee doesn't
2 have any authority. We can't order anybody to do
3 anything. Nobody reports to us.

4 Our influence comes from the fact that we're
5 experts, and we writes reports, and if we find
6 something, we write it up.

7 But I have to say that, whenever we have found
8 something over the years, PG&E has always been fully
9 responsive -- good for them -- and have worked with us
10 and NRC, of course, to make sure that those issues that
11 we have raised are addressed properly, and we've been
12 satisfied with that.

13 The other principal thing we do is, because we
14 have these public meetings, we make available to our
15 public meetings all sorts of information to the public
16 that they wouldn't otherwise have.

17 There is no other committee like ours anywhere
18 in the United States. We have 60-odd sites and 100
19 reactors all over the country. There's no other
20 committee like ours; so we are completely unique, and
21 through us, you, the public, can get information by
22 attending our meetings and reading our stuff that isn't
23 available otherwise.

24 So with that as an introduction -- and it's
25 been very brief -- I am going to then talk about what we

1 have done so far and what we plan to do that's within
2 the charter of your engagement panel.

3 In this -- all through this time part of our
4 charter has been to assure that the way PG&E manages the
5 spent fuel in their -- in the spent fuel pools has been
6 done in a safe manner.

7 They meet all NRC regulations, which they do,
8 and that they do things in a way that has very large
9 margins to make sure that -- we want to make sure those
10 margins are not eroded by certain operation or other
11 things that go on, and we are doing that right along.

12 And, generally, we have been very satisfied
13 about how PG&E has operated those pools in every sense.

14 They've also, ever since the design of the
15 ISFSI came along and now it's operating, we have
16 reviewed the design of the ISFSI, we reviewed the
17 operations of how they run it and how they inspect it.

18 We reviewed the transfers, as I said before.
19 We have actually watched as the transfer has taken place
20 and reviewed the activities when the transfer goes from
21 the spent fuel pools into the reactor off-site up the
22 hill to the ISFSI facility up on the hill.

23 So we have been doing that right along. And
24 it's fair to say that we have been very satisfied with
25 the way PG&E has handled that problem and all that

1 activity to date.

2 Very seldom have we seen anything of concern,
3 and that's a good thing to be able to say. Especially
4 you can tell they have been doing a good job all this
5 time, and we are pleased to be able to report that
6 because it's really important.

7 Now, going forward -- and this is the crucial
8 thing I want to talk about here because this is your
9 concern -- going forward, the plant is going to shut
10 down.

11 And for the first two or three years, maybe
12 even four or five -- we are not sure yet -- for the
13 first few years there is going to be spent fuel in the
14 pools before it's transferred.

15 We are going to continue to review the safety
16 and the operations of that spent fuel and the way it's
17 managed to make sure that during that period there isn't
18 any safety issues that arises that we want to call
19 attention to.

20 Now, of course, we are not alone. The NRC is
21 reviewing it, and so on; and, of course, the plant has
22 its own processes. But we are going to provide an
23 independent look, and we are going to continue to do
24 that and make sure that those spent fuel rods and so on
25 in the pool are managed as safely as they need to be.

1 We are also going to then monitor -- as we have
2 already -- the transfer because there is going to be a
3 lot of transfer from the pools up to the ISFSI after,
4 you know, two or three years or whatever after the plant
5 shuts down, and we are going to monitor that.

6 And we are going to pay close attention, as we
7 need to do, making sure that those activities are
8 planned properly and that they are carried out.

9 And then, finally, of course, there is the
10 ISFSI itself. So far we've reviewed it since it has
11 been there -- the spent fuel. The first spent fuel has
12 been out there more than a decade ago, and so far we
13 have been satisfied with the way PG&E has managed it.

14 But there are concerns going forward, and I am
15 going to mention them briefly, and then I will be done
16 after that. I'll just mention them briefly.

17 And you know about them, and the panel, the
18 engagement panel knows about them. But I want to
19 qualify your attention to them.

20 It is completely obvious to anybody who thinks
21 about it that the safety of that facility depends on the
22 integrity of those canisters. The thing that Philippe
23 just showed you and talked about. And the integrity has
24 many different aspects, some of which have to do with
25 corrosion or degradation of the outer pack.

1 Some of which have to do with the integrity of
2 the big concrete pad that is on them.

3 Some of which have to do with assuring the
4 earthquakes don't -- there's a hill right next to it,
5 and you can't slide down, you know -- and make sure that
6 the earthquakes don't cause trouble -- they might -- by
7 making sure that the anchors are designed properly and
8 that sort of thing.

9 And we have reviewed that in the past, and we
10 are going to continue to review that because that's an
11 important, crucial thing where we can provide an
12 independent review, and we are going to provide it.

13 There has been a little bit of corrosion that
14 Philippe mentioned just what? 10 or 15 minutes ago
15 already? And I won't say whether that is unexpected.
16 It's sort of expected -- superficial corrosion on a few
17 places.

18 But one of the most important things that PG&E
19 has to do and the NRC has to do and then work on it is
20 to continue to review and make sure that that corrosion
21 doesn't compromise the overall integrity of this
22 facility over the long haul.

23 A little bit -- a very small fraction of an
24 inch of stuff on the surface, oxidation and light rust,
25 it really doesn't proceed very much further, as

1 expected, and it's not going to be a concern providing
2 it doesn't proceed further.

3 And so one of the things we are going to do,
4 I'm pledging to you, and I know we will do, is we are
5 going to continue to look at PG&E's program for
6 monitoring, program for maintaining the integrity,
7 program for keeping the -- there's control of all sorts
8 of things that they have to keep control of.

9 There's a program for monitoring radioactivity
10 right at the site and off-site too. And during this
11 period, which is 10 or 15 years long after they shut
12 down, before finally everything is transferred, we are
13 going to be there to provide this independent review.

14 And that's a pledge to you, and we have been
15 doing it already, and calling attention, if appropriate,
16 by regular reports that are available to the public.

17 The other thing, by the way, that I hope you
18 members of the public understand is that any member of
19 the public can come to any of our public meetings and
20 ask any questions you want.

21 Also, any member of the public can send us a
22 letter, an email, or communicate with us -- it tells you
23 how to on our website -- about any concern you might
24 have, and we will pay attention, and we will review that
25 concern, and we will answer it.

1 We have been doing that right along over the
2 years and will continue. A single member of the public
3 or organization, if you want to communicate with us, we
4 are there to do it.

5 We have looked at and have carefully reviewed
6 the license application, the Licence Renewal
7 Application, that Philippe talked about.

8 They submitted it in March, and when the NRC
9 has completed the review of it, they may or may not --
10 we don't know -- give a 40-year extension.

11 We are going to look at that carefully. We
12 have already looked at the work they have done to
13 prepare this license application. We, the Independent
14 Safety Committee, looked at it independently.

15 But we are going to look at it again as it goes
16 along, and if the NRC has questions and -- and the
17 equitable questions, we are going to review whatever
18 their questions are to make sure that we understand the
19 questions and the issues that come along. If members of
20 the public have any issues, we are going to look at that
21 too.

22 But we have already reviewed that Licence
23 Renewal Application and been briefed by PG&E staff,
24 including Philippe and Tom Jones -- who is coming up
25 next -- carefully.

1 And we were satisfied to date that what they
2 asked for made sense. But as my grandmother used to
3 say, there has been a slip between the cup and the lip.

4 And the fact is that, yeah, it's all there, but
5 the key is will they follow through over the 40 years?

6 Well, we don't know about the 40 years, but we
7 are going to look at it one year at a time. And if that
8 follow-through is acceptable, we will say so; and if it
9 isn't, we will provide an independent review to assure
10 ourselves and, of course, the public of what our
11 position is.

12 So that having been said, I just have a minute
13 or so to talk about the new system. Just within the
14 last week PG&E announced that they selected a different
15 contractor, a NUHOMS system, that they proposed to the
16 NRC, of course, and so on, that will be the new ISFSI
17 system going forward.

18 Well, we haven't seen it yet. We know
19 something about it because we are in this business, but
20 we haven't seen the technical documents yet. We expect
21 that we will see them very soon.

22 And we are going to review them too, just as
23 the NRC is going to review them, members of the public
24 are going to review them, and, you know, we're looking
25 forward to seeing them and doing a technical review and

1 meeting with them individually in what we call "fact
2 findings."

3 And hearing from them at our public meetings,
4 perhaps the next public meeting. We have another public
5 meeting in June and another one in October, and we'll
6 perhaps hear from them about it from PG&E or maybe even
7 from Orano themselves and keep you informed as we review
8 that system.

9 But right now it's new to us. We haven't seen
10 it yet. I mean, we really haven't anything to say about
11 that.

12 So I hope that that overview, that's just a
13 short, little less than 15-minute overview, provides you
14 with a background about what our committee does and why
15 we do it and who we are.

16 I am available now if you want to answer any
17 questions. As I said, we, as a committee, are available
18 at any time to answer your questions. Go to our
19 website, come to our public meetings, send us a letter,
20 ask us whatever you want; and we will try to be as
21 responsive as we can be.

22 Finally, we pledge to the engagement panel, and
23 the members too, if the panel has technical questions
24 about the operations, we are here to help answer those
25 questions. So we are a public entity. Thank very much.

1 MR. ANDERS: Thank you, Dr. Budnitz. Now we
2 have the opportunity for some questions and discussion
3 with the panel on what you have heard so far.

4 Either questions of Philippe or Dr. Budnitz or
5 Kara on the presentation.

6 Yes, Sherri.

7 SHERRI DANOFF: Okay. This is question for
8 Dr. Budnitz. You had mentioned concern about concrete
9 corrosion. And I am wondering if you would expect
10 corrosion and rust to accelerate at a greater pace in
11 that the casks are stored in open sea air than if they
12 were stored under normal conditions.

13 DR. ROBERT BUDNITZ: Yes, that's -- can you
14 hear me?

15 SHERRI DANOFF: Yes.

16 DR. ROBERT BUDNITZ: It's completely obvious to
17 anybody, and the experts, too, that because they are out
18 in the open air, and because, in fact, it's a marine
19 environment with marine chemicals and salt, and so on,
20 that those conditions produce a greater threat than if
21 it was, for example, indoors, just to give you an
22 example, or if it was out in the middle of a place that
23 didn't have any of that marine environment. That's for
24 sure. And it's that environment that causes greater
25 concern than if it wasn't solved. Absolutely.

1 Now, concrete, by the way, doesn't corrode, but
2 it does degrade. I mean, metal corrodes. I am just
3 trying to make a distinction about the words used.

4 But both the corrosion and the metal and the
5 degradation of the concrete are, in fact, accelerated by
6 that marine environment. Absolutely. You bet.

7 SHERRI DANOFF: Thank you.

8 MR. ANDERS: Linda, and then Kara.

9 LINDA SEELEY: Following up on Sherri's
10 question. I would like to ask Philippe how -- you
11 inspected eight canisters in 2021. How many of the
12 eight did you find scratches on?

13 PHILIPPE SOENEN: I would have to double-check
14 to see if -- the scratches aren't uncommon. That's -- I
15 am not sure if it was on all of them or not.

16 But scratches are not uncommon based on the
17 surfaces that you have, part of the manufacturing and
18 how you transport these things; so scratches are
19 expected, but exactly how many of the canisters were
20 scratched, I don't know that, but it's not uncommon.

21 LINDA SEELEY: Yeah. So I am going to make a
22 wild guess and say you probably found -- you said you
23 didn't know if it was on all eight or not, but I would
24 assume that it's on a lot of them if not all eight.

25 So -- and with what Dr. Budnitz just said about

1 the, you know, greater preponderance to stress corrosion
2 and cracking in the sea air, I am wondering -- and I've
3 got another follow-up question -- I am wondering why you
4 wouldn't inspect all of them.

5 Because I would assume that all 58 canisters
6 would probably have scratches, then if most of the eight
7 that you inspected did, if you could generalize that to
8 all of the casks.

9 So it seems to me that, when we have these
10 conditions of the salt water, the etching problems, the
11 corrosion, the possibility -- the fact that these -- you
12 have asked for a 40-year renewal on these particular
13 casks, it seems to me that it would be in the public
14 interest for all of them to be inspected.

15 And then, also, you have out there 19 casks --
16 canisters that are improperly loaded. I know that it
17 was exempted by the NRC where you put the -- I don't
18 think PG&E did it, I think Holtec did the loading, but I
19 am not sure about that. I don't know if it matters who
20 did it -- but the fact is that they loaded -- that you
21 were supposed to put the cooler fuel on the outside, the
22 hotter fuel on the inside, and they did it just the
23 opposite on 19 casks -- canisters.

24 So would those -- I mean, would those be more
25 subject to stress corrosion and cracking or less subject

1 to it? And are you checking on that?

2 Are we going to know if those -- you know,
3 what's going on out there? It is very concerning, you
4 know, when we are talking about 60 more years.

5 And we don't know what the future is with
6 either interim storage or a permanent repository. And,
7 remember, we have been promised by NRC for the past
8 50 years that they would have a place to put nuclear
9 waste, and they are still zilch.

10 Okay. Sorry for such a long question, but I
11 would like the answer.

12 PHILIPPE SOENEN: I understand. So just --
13 first to address the scratches, and then there was
14 mention of stress corrosion cracking.

15 So those -- stress corrosion cracking and
16 scratching wouldn't have any correlation to them, to
17 each other; right?

18 So stress corrosion cracking, there are three
19 specific conditions that need to be met first for it to
20 be susceptible to it, so it has to be a stressor; so
21 it's usually a heat-affected zone; so it's a stress
22 within the material that's in storage.

23 There needs to be a -- most likely a chloride.
24 There has to be a material that has the potential for
25 inducing; so it's chloride stress-induced corrosion

1 cracking.

2 And you need to have a temperature that is low
3 enough to have a process where the contaminant would be
4 in the stress zone long enough but the water evaporates
5 from it; so you need all three of those for a
6 susceptible location.

7 And just because a location is susceptible
8 doesn't mean it will have stress corrosion cracking,
9 just to be clear on that. So scratches and stress
10 corrosion cracking are not related. All right. So just
11 to address that portion of it.

12 Now, as far as the scoping of what's inspected.
13 So for the Nuclear Regulatory Commission you are not
14 required to inspect everything, but you are required to
15 select what's -- there is criteria for selecting your
16 leading components.

17 So the expectation is that you have a
18 population that is appropriate, and you are looking at
19 the compliments that will be the leading indicators.

20 So it will be the materials that are most
21 susceptible so -- also the conditions -- so the heat
22 loading on the those; so the ones that are going to be
23 in a susceptible condition that have been in that
24 condition longest.

25 So that's going to be the assurance that, if

1 you are looking at those, you then have a good
2 representation of what the rest of the systems are
3 doing.

4 Also, these programs, you are required to look
5 at your operating experience. So if you do find
6 something that's unexpected, you are required to expand
7 your scope.

8 At that point you would start looking at more,
9 potentially looking at different frequencies, looking at
10 it more frequently, and looking at more locations.

11 But you start off with locations that would be
12 most susceptible; so we would look at the material and
13 age and the heat loads, and that's the selection that we
14 would make to start off with and expand as needed.

15 LINDA SEELEY: But they did an inspection in
16 2014. Who was it?

17 PHILIPPE SOENEN: It was a joint with EPRI.

18 LINDA SEELEY: EPRI. Right. And found the
19 conditions for stress corrosion and cracking on one
20 canister that hadn't been there all that long, and it
21 was unexpected that they found that -- conditions that
22 would promote stress corrosion and cracking.

23 And so are you looking at that one canister,
24 like, a lot? Or, you know, every year or whatever?

25 PHILIPPE SOENEN: So the frequencies --

1 because, again, even though it's susceptible doesn't
2 mean that it exists on that.

3 The corrosion rates associated with stress
4 corrosion cracking, if they were to exist, they are very
5 slow. So, again, that's why the guidance from the
6 Nuclear Regulatory Commission is starting with a
7 five-year frequency.

8 Again, if you were to identify something as far
9 as the -- an actual indication, you would have go into
10 greater evaluation depth, and you would be expected to
11 start looking a extended conditions, looking into other
12 locations, and upping the frequency.

13 But that's why the guidance documents, we --
14 even with our environment that we are in, that's why we
15 start at five years.

16 Other plants that are not in a coastal zone,
17 they actually start at a longer frequency; so the five
18 years is the shortest interval that is recommended by
19 the NRC as a starting point.

20 LINDA SEELEY: Thank you.

21 MR. ANDERS: Thank you, Linda.

22 Kara, you had a question.

23 KARA WOODRUFF: Yeah, I have a question for
24 Dr. Budnitz. I was wondering if he and his colleagues
25 on the Independent Safety Committee would be able to

1 look at all of the materials for the new cask system,
2 which we are going to hear about later this evening.

3 And as a third-party unbiased source, could
4 they come and report back to the Diablo Canyon
5 Engagement Panel their opinions about the new cask
6 design and features?

7 And I don't know if it's possible. We do have
8 this meeting scheduled for May 25th. It would be
9 wonderful if the Safety Committee could report back at
10 that meeting, but I'm wondering if that's possible.

11 Or, if not then, would they be willing to do it
12 later in the year when they have all of the technical
13 reports or whatever it is they need to evaluate the
14 system?

15 DR. ROBERT BUDNITZ: I have an easy answer for
16 that. We haven't seen the design of the new -- we
17 haven't seen the details of the design of the new system
18 yet, and we are not sure when we will get it, although
19 we expect we will get it soon.

20 Depending on how detailed it is, we are not
21 sure how long it will take us to review it. But even if
22 we get it today, tomorrow, it will take us some time to
23 review it, and then for sure we are going to want to go
24 to the plant -- not all of us, but one or two of us, or
25 two or three, we are not sure, but certainly two of

1 us -- on what we call a "fact-finding visit" and talk to
2 the PG&E people or maybe to the Orano people about any
3 issues that we find when we do our review.

4 Only then, and having done that detailed
5 review, will we be in a position to formulate our own
6 views on these issues, which we are going to do, for
7 sure, and then only then will we be in a position to
8 talk to you.

9 Okay. I can't tell when that is going to be;
10 but there is no way it is going to be within, let's say,
11 May, say a month from now. That's just too -- too soon.

12 It will take us longer than that to formulate
13 even our own questions to be followed up with some fact-
14 finding with PG&E.

15 But we have, in June, a public meeting that is
16 scheduled, our own public meeting, and we are very
17 likely to want to hear from PG&E or Orano or both -- we
18 haven't decided yet -- at that public meeting, and you
19 and members of the public can be there too and ask
20 questions and see what we've learned.

21 So I don't think we are going to be in a
22 position to talk to you for a month or two. It might
23 even be three or four. We're just going to have to wait
24 and see what we see and what we think. Okay?

25 KARA WOODRUFF: Okay. Fair enough. There's a

1 lot to review, I am sure. But what I'm hearing you
2 saying is that you will be doing a review.

3 And I guess my question would be then, whenever
4 that time is -- maybe it's a year from now -- when you
5 have a conclusion, would you be willing to come back to
6 the panel and report your findings?

7 DR. ROBERT BUDNITZ: Yes. Yes, we made that
8 pledge to you in the beginning, and we will stick to it,
9 you bet. We will definitely be receptive when you ask
10 us to come back, but you will know because we will have
11 talked about this at our own public meetings.

12 And people -- people like you can attend them
13 or see what we do or we can then find a time -- yes.
14 The answer is yes.

15 KARA WOODRUFF: Thank you.

16 MR. ANDERS: All right. Thank you. One last
17 question from Sherri, and then we'll hear from public
18 comment.

19 SHERRI DANOFF: Okay. Thank you. Related to
20 the existing casks, in order to be prepared for some
21 unusual incident, I'm just wondering your opinion about
22 the following situations: The cask transporter has
23 recently been inoperative. This was discovered during
24 the planned cask inspection, and there isn't a spare
25 transporter, and one is not on order or intended, and I

1 wondered what you thought about that.

2 And then related, same thing about no spare
3 cask existing or being on order. Do you think it would
4 be prudent to have spares?

5 PHILIPPE SOENEN: Is that to --

6 MAUREEN ZAWALICK: We have PG&E to talk about
7 this.

8 SHERRI DANOFF: I was thinking of Dr. Budnitz
9 to see if he has an opinion on that.

10 Thank you, Philippe, for being available.

11 DR. ROBERT BUDNITZ: The system -- no matter
12 what happens, the system is safe, as it sits, in our
13 judgment, right now. That's an important thing for you
14 members of the public and you members of the engagement
15 panel as well.

16 Our judgment is the system is safe as it is.
17 And, furthermore, we've reviewed the seismic safety, and
18 the system is safe against the earthquakes as it sits.

19 We've concluded that, and we believe that, and
20 I don't mind telling you the Nuclear Regulatory
21 Commission has said that.

22 So right now there is no need for or urgency
23 for something like a spare cask or an extra transporter.

24 If corrosion just started to go like a -- you
25 know just as fast as you can imagine -- that's a 30-year

1 process. Okay. It's just these things just -- they are
2 very, very slow. Maybe it's a ten-year process if you
3 are very pessimistic.

4 So nothing -- we want to be alert to this, it
5 is important, you bet -- but nothing out there is going
6 to happen fast enough to be of concern in the very short
7 term, meaning in the next few years in terms of that
8 just even being compromised.

9 Of course, we want to make sure that we don't
10 see incipient compromises that will get us in trouble 10
11 or 15 years from now; that's the point; that's why we
12 are looking now.

13 But you should know that on a technical level
14 there isn't anybody that thinks that these processes, no
15 matter how pessimistic you are, are fast and furious.
16 They just aren't.

17 We have plenty of evidence of that already from
18 other experience, and we know they don't.

19 SHERRI DANOFF: Thank you for addressing that.

20 MR. ANDERS: Thank you. Okay. One last
21 question. Scott Lathrop.

22 SCOTT LATHROP: This is for Philippe. I'm just
23 kind of curious. In reference, since we will be moving
24 towards a new type of cask, of the existing fuel rods
25 that are in the pool right now or the assemblance, how

1 many of those would actually be put into the old casks
2 versus the new casks that are in the pool right now?

3 PHILIPPE SOENEN: So the -- all fuel that's --
4 we have lowered the 58 canisters, and now we are
5 transitioning to the new system. If that answers your
6 question.

7 Are you looking for an actual number of how
8 many are in the spent fuel pool to be transferred? But
9 everything will go into the new system.

10 SCOTT LATHROP: So everything in the pool right
11 now will be in the new casks?

12 PHILIPPE SOENEN: That's correct.

13 MR. ANDERS: Thank you, Scott.

14 All right. Now we have an opportunity for
15 public comment.

16 DR. ROBERT BUDNITZ: Chuck, this is
17 Bob Budnitz. I would like to have one more -- on more
18 sentence.

19 MR. ANDERS: Okay.

20 DR. ROBERT BUDNITZ: I didn't mention, but I
21 thought I would be sure to mention, the thing that is
22 special about Diablo Canyon is it's the highest seismic
23 site of any reactor in the United States, also of any
24 reactor in the world.

25 So when it comes to reviewing the technical

1 details of the new Orano system, we will pay special
2 attention to that feature. Not surprising. I just want
3 to make sure that we told you that we are going to do
4 that, and you bet we are going to do it. Thank you.

5 MR. ANDERS: Thank you. We have, looks like,
6 one person here that wants to speak, and we have four
7 people online that would like to speak.

8 I want to emphasize that we are talking about
9 the current system at this point. Now we have five
10 people online that want to speak. So let's give
11 everyone two minutes to make public comments.

12 And let's start with Jane Swanson, and then
13 Sherry Lewis, Brendon Pittman, Kaylene Walker,
14 Dylan Canterbury Baker, and Sharon Hammond.

15 JANE SWANSON: So you are ready for me; right?
16 Is this mic on? I am suppose to turn it on? There's a
17 red thing. Okay.

18 PUBLIC COMMENT

19 JANE SWANSON: All right. I am Jane Swanson.
20 I am with San Luis Obispo Mothers for Peace, and my
21 question is a follow-up to what Sherri Danoff brought up
22 recently about the planned -- last October, I was one of
23 a few citizens invited to witness the inspection of
24 some -- one cask they were going to lift up, and Sherri
25 used the word "transporter" -- I was thinking it was a

1 crane -- but whatever it was that was supposed to pick
2 the thing up, it didn't work, so that was canceled. And
3 my understanding is that that inspection will happen in
4 May sometime.

5 And my question is about details on that. So
6 the inspection will be looking for what? I'm presuming
7 corrosion or something, but I'm wondering if somebody
8 could explain more about the difference between
9 looking -- why and how you look at the bottom of a cask
10 as opposed to the sides or the interiors?

11 And how many casks will be inspected in this
12 way long-term? I am only aware of one being planned,
13 and I don't know if that is just the first of many or if
14 that's it; so that's my question.

15 MR. ANDERS: Go ahead, Philippe, if you can
16 answer the question.

17 PHILIPPE SOENEN: Yes. So the purpose is to
18 lift the canister so we can look at the bottom of the
19 cask itself for any degradation to validate that there's
20 nothing unexpected going on there.

21 Just to be clear, it is not part of a
22 requirement of the License Renewal Application. That's
23 why we have submitted the application prior to these,
24 but it is a prudent action that we are taking just to
25 validate that there's nothing unexpected going on.

1 So depending on what the results are, we expect
2 they are just the visual indications and not necessarily
3 having to do cask lifts in the future, but it's to get a
4 good baseline of how our system is performing.

5 MR. ANDERS: Thank you. Now we will go to our
6 online participants. Please state your name, your
7 residence, and any organization or affiliation, and it's
8 helpful if you spell your last name, please.

9 Our first speaker is Sherry Lewis. There might
10 be a little bit of a delay.

11 ZEKE TURLEY, AGP: Did you allow her to talk?
12 If not, I will.

13 TOM JONES: Yeah, please.

14 MR. ANDERS: Go ahead, Sherry.

15 SHERRY LEWIS: Okay. Can you hear me now?
16 Okay. Good. Talking about the crawler that goes into
17 the vents and down -- up within the canister, when you
18 inspect a canister or a cask, whichever it is, when you
19 inspect that, do you send this crawler down through all
20 the vents or just one vent per canister?

21 PHILIPPE SOENEN: We -- we do it in quadrants.
22 We go through all the upper vents; so we have -- we get
23 the entire circumference of the canister.

24 SHERRY LEWIS: Thank you.

25 MR. ANDERS: Thank you.

1 Our next speaker is Brendon Pittman. Brendon.

2 Is Brendon activated?

3 BRENDON PITTMAN: Hi. Can you hear me?

4 MR. ANDERS: Yes, we can. Go ahead, please.
5 Your two minutes.

6 BRENDON PITTMAN: Okay. Thank you so much. My
7 name is Brendon Pittman. I live in Berkley, California.
8 My last name is P-i-t-t-m-a-n. I am a civil engineer,
9 just generally curious about the plant, and PG&E, and
10 operations in general.

11 It's a two-part question. I apologize if maybe
12 this -- one of these questions will be addressed later.

13 But the first question is for Orano, and it's
14 regarding movement of a cask. And the question is have
15 you ever removed a cask from your storage system once
16 they are put in place?

17 And my second question is for PG&E, and I'm not
18 sure who this would be appropriate for, maybe
19 Ms. Wayliff (phonetically). I hope I got that right.
20 Forgive me if I mispronounced that.

21 And my question is did PG&E pick the best
22 technical system for the plant? Thank you.

23 TOM JONES: I will address that at the
24 appropriate time on the agenda.

25 MR. ANDERS: We have been informed that PG&E

1 will address that at the appropriate time on the agenda.

2 So thank you for your comment.

3 BRENDON PITTMAN: Okay. Thank you so much.

4 MR. ANDERS: Our next speaker is

5 Kaylene Walker. Kaylene, please state your name, your
6 residence, and any group affiliation, and you have two
7 minutes.

8 KAYLENE WALKER: Hi. Kaylene Walker. I live
9 20 miles from San Onofre, and I carefully followed the
10 whole Holtec fuel loading process and the multiple
11 problems and then the information that was discovered
12 from the various problems like a canister was broken,
13 shims was loaded, and the near drop, of course.

14 I did more than listen to the talking points
15 from the -- the public talking points. I read technical
16 documents. I attended NRC meetings. So I would like --

17 And I would like to just call your attention to
18 some kind of misleading statements that I think are
19 worth looking into.

20 Number one, the inspection of the -- these
21 canisters are problems with corrosion and cracking;
22 that's -- that's an expected fact about these canisters.

23 The inspection technique is not an inspection.
24 That isn't -- the inspection report made a clarification
25 that this was a visual assessment.

1 That would be like going to the dentist and
2 having them take pictures of your teeth with that
3 camera. They cannot assess the microscopic crack
4 development that happens with these canisters.

5 Visual assessments are not effective at
6 assessing crack development. They can look at
7 precursors but not actual cracks. That's a very serious
8 problem.

9 The repair technology that you mentioned that
10 San Onofre has been touting, that is ASME -- I mean EPRI
11 put out to the court in 2021 that said this nickel-spray
12 repair technology cannot -- there's no credit -- no
13 credit should be taken for structural or strength
14 properties of cold spray.

15 ZEKE TURLEY, AGP: That's time.

16 KAYLENE WALKER: Also -- is my time up?

17 MR. ANDERS: Your two minutes are up.

18 KAYLENE WALKER: Let me finish that one point.
19 The cold spray will not stop a helium leak from a crack.
20 That is like a very serious problem.

21 Anyway, I have so many points that I would like
22 to make. Maybe I will put them in writing. Thank you.

23 MR. ANDERS: Thank you very much.

24 Our next speaker is Dylan Canterbury Baker.

25 Dylan, are you there?

1 DYLAN CANTERBURY BAKER: Can you all hear me?

2 MR. ANDERS: Yes, we can. Go ahead. You have
3 two minutes.

4 DYLAN CANTERBURY BAKER: Hi. I am
5 Dylan Canterbury Baker. I am an actual resident of SLO
6 County. I live about seven miles from Diablo Canyon.

7 And one thing I have been very interested in
8 hearing is what are you also doing to address the
9 increased risk of seismic activity here? Because, I
10 mean, now, in foresight we'd find it odd to build a
11 nuclear plant here in such a volatile zone.

12 And considering the storage is on-site is
13 unlikely to change for awhile, how is that going to be
14 addressed in the equation of keeping the nuclear waste
15 safely stored. Thank you.

16 MR. ANDERS: Okay. We got the question. Is
17 there anything else?

18 DYLAN CANTERBURY BAKER: Just I am eager to
19 hear what you all have to say about this because I know
20 it's a concern of many people who live in SLO County and
21 live near it, and I go near Diablo Canyon pretty
22 frequently because I live in Avila Bay.

23 MR. ANDERS: Okay. Thank you very much for
24 your comment.

25 KARA WOODRUFF: Chuck.

1 MR. ANDERS: Yes, Kara.

2 KARA WOODRUFF: Can Philippe give a brief
3 answer just on the seismic, like the bolting, and
4 maybe -- I guess we will be talking about the new casks
5 later in the evening --

6 PHILIPPE SOENEN: Yeah.

7 KARA WOODRUFF: -- but I think his question
8 also concerns existing casks. Maybe you can do a brief
9 explanation on the seismic protections there.

10 PHILIPPE SOENEN: So our system itself, I
11 should mention, would be we do have a modified
12 HI-STORM 100, it's seismically anchored. They have
13 anchorage studs that go over 7 feet into the concrete,
14 and there's 16 of these studs around the base to prevent
15 any tip over.

16 The Nuclear Regulatory Commission looked at
17 those analyses and postulated a specter for our seismic
18 at the ISFSI. Similar bedrock as the power plant is
19 built on.

20 So those were all analyzed and approved by the
21 Nuclear Regulatory Commission for the -- being able to
22 withstand, with margin, any seismic events that would
23 happen at the site.

24 KARA WOODRUFF: Thank you.

25 MR. ANDERS: Thank you, Philippe. Thank you,

1 Dylan.

2 Our next and last speaker is Sharon Hammond.

3 Sharon, you have two minutes. Can you hear me?

4 SHARON HAMMOND: Excellent. Thank you. Yes,
5 can you hear me?

6 MR. ANDERS: Yes, we can. Please go ahead.

7 SHARON HAMMOND: Thank you. Hello. My name is
8 Sharon Hammond, H-a-m-m-o-n-d; and I am with an
9 organization called the "Society Library," and we
10 organize collective information around a given topic and
11 then organize that information into debate maps for
12 educational and public consumption.

13 And from that regard I have to give absolute
14 gratitude to the panel and to the safety counsel as well
15 for your fantastic organization and information
16 presentation.

17 My question now is, given the recent OIG report
18 that called into question the efficacy of oversight,
19 and, particularly, the efficacy of existing inspections
20 of Diablo Canyon facilities and risk-significant
21 equipment, are there any plans to, say, preemptively do
22 additional internal inspections or in some way
23 communicate to the public that areas that may have been
24 overlooked or not inspected as carefully as we would
25 have hoped are getting that attention?

1 And, specifically, you know, those
2 risk-significant systems and spent fuel areas. Are
3 there -- are there any plans to more aggressively
4 monitor, inspect, and communicate that to the public
5 perhaps?

6 MR. ANDERS: Anyone, can you address that? I
7 guess that's it.

8 Go ahead, Philippe.

9 PHILIPPE SOENEN: There seems to be a lot of
10 focus on operational activity. For the topic here we
11 are talking about our dry cask storage systems, and as
12 we talked about the seismic design for the -- our
13 current system and then there will be presentation for
14 the new system that will be implemented, I think we will
15 take note of what the comment as far as they relate to
16 the OIG and operational inspections.

17 MR. ANDERS: Great. Thank you. That concludes
18 our public comment period. And our agenda says we are
19 due for a break.

20 And Dr. Auran says we should stand up and
21 stretch for at least 30 minutes -- 30 seconds. So let's
22 take a break, and we will be back at 7:50.

23 (A break was taken at 7:42 p.m.)

24 MR. ANDERS: Let's go ahead and reconvene the
25 meeting. Before we go on to our next agenda item, I

1 want to remind everyone that we will have another public
2 comment period after this discussion of the new spent
3 fuel storage system that has been selected.

4 And I also want to remind people here and the
5 people online that you can submit comments to the panel
6 any time and to the panel's website.

7 The website is DiabloCanyonPanel.org, and just
8 click on the big button in the upper right-hand corner
9 to submit comments, and the panel continues to monitor
10 those comments.

11 If you want to see the comments that have been
12 submitted, go to the menu item called "Get Involved,"
13 and you can see submitted comments and then also viewed
14 comments. And if you click on "Viewed Comments," you
15 can actually see all the comments that have been
16 submitted to the Diablo Canyon panel.

17 So, with that, I want to introduce Tom Jones
18 with PG&E, who's going to begin the discussion of the
19 new dry cask storage system that has been selected.

20 TOM JONES: Thanks, Chuck. Good evening, panel
21 members and members of the public. Tom Jones, director
22 of strategic initiatives for Pacific Gas & Electric
23 Company. I am going to speak a little
24 uncharacteristically slower tonight for a couple of
25 reasons. One is -- and I will ask the panel and members

1 of the public during their public comment as well to
2 slow down a touch to help out our signers and our
3 stenographer.

4 So we've been giving them a good workout so far
5 with a lot of technical acronyms; so we want to slow
6 down just a bit and help them out; so thanks for your
7 support on that.

8 So tonight we will have a number of topics, and
9 we can bring up the presentation, please, for those
10 viewing at home. There we go.

11 So we are going to go over several items.
12 We've got some of the panel topics that were proposed
13 tonight, some of their report about the status of items
14 in their Strategic Vision, and then also some of the
15 questions that the public has answered -- or excuse
16 me -- asked earlier about the current -- or the new
17 system coming in.

18 So we are going to go over the background of
19 how that selection process occurred, how we will move
20 forward on a licensing approach, and some key takeaways
21 and the next steps for the public process that will be
22 utilized as we select this new system for Diablo Canyon.

23 So contractor selection announcement -- I have
24 been saying it wrong my whole nuclear career. We've
25 selected Orano, not Orano as I used to say, so we will

1 work on that.

2 And tonight after my presentation Orano will
3 directly go into their presentation, and we are joined
4 by Roger Maggi and Raheel Haroon, and then we also have
5 some of their Orano technical staff online back East; so
6 it's a little -- three hours later for them; so thank
7 you very much for staying up tonight and staying with
8 us.

9 So the scope of their contract includes the
10 engineering and licensing of their system to be
11 applicable at Diablo Canyon. It is currently a license
12 system, and that licensing activity will be sure that
13 their Certificate of Compliance envelopes are all
14 characteristics of the Diablo region.

15 So we have heard about seismicity; yes, it
16 will. We have heard the age of our fuel and the
17 temperature, yes. And so we've heard about the time
18 frames as well, approximately two years. The system
19 will do all of that.

20 Additionally, the system helps set us up for
21 decommissioning, and so we'll have what's called a
22 "Greater Than Class C," a GTCC storage pad that will
23 handle some components. If you think about
24 decommissioning a nuclear power plant, taking things
25 apart, think about the internal components of the

1 reactor itself. Items like that that are also
2 radioactive, and we will store those in another area,
3 another location outside of the dry storage pad or the
4 ISFSI pad.

5 It's where we historically stored other
6 low-level competents like our old steam generators from
7 our replacement project. So it's still on-site; it's
8 still above 300 feet above sea level; and it's a little
9 further east in a controlled area of the power plant.

10 Orano will also do the construction and
11 installation of all the storage modules, and they will
12 get into that in their presentation, and it's a turnkey
13 operation for PG&E. From pool to pad transfer they will
14 run it, and we will provide rigorous oversight as well
15 when they do that process.

16 Here is the big "what-what" when you look at
17 Diablo Canyon and how this impacts decommissioning or
18 anything else we are going to do.

19 The arrow points to our current spent fuel
20 building, and that's where both spent fuel pools are for
21 Unit 1 and Unit 2. You can see with that construction
22 and how they are nestled together that you can't really
23 do any meaningful decommissioning activities until you
24 move the spent fuel pool.

25 So this new time frame favorably pulls things

1 to the left on the timeline for us. That's a big
2 advantage for everything we seek to do, and even if for
3 some reason our permitting was delayed on
4 decommissioning, the transfer of fuel is independent
5 from the California Environmental Quality Act process,
6 the Coastal Commission Review, and everything, we go on.

7 So we can maintain this timeline with great
8 assurance compared to some other things that we have
9 because, you know, we are still pursuing multiple,
10 concurrent, discretionary actions by regulators.

11 In this case we have a lot more certainty and
12 deliverability than we do on some other things; so it's
13 independent and its heading to a separate licensed
14 facility; so I just want to point that out. It's a
15 really good outcome for all the projects.

16 We have shared this slide with the panel and
17 the public before, but this gives some context for what
18 it means for our customers and what we looked at before.

19 I thought Kara and the panel did a nice job
20 talking about those moving timelines going back from
21 2015 and forward. Well, this translates that schedule
22 acceleration into dollars and what it means for our
23 customers as well.

24 The utility makes no profit on decommissioning.
25 If you think about your utility bill, similar to your

1 phone bill where there's a 9-1-1 surcharge on your phone
2 bill, there's a nuclear decommissioning surcharge on
3 your electric bill.

4 By reducing these costs and prudently managing
5 the project, like delivering used fuel transfer a little
6 bit sooner, we reduce those costs that otherwise just go
7 to maintaining systems that ultimately have no use or
8 benefit to the public.

9 Here's some other takeaways from that timing.
10 We get that earlier deliverability of the
11 decommissioning project; that's good for everyone.

12 We get the earlier dismantlement at the site
13 structures that allows for earlier repurposing. I think
14 about earlier public access. I think about earlier use
15 of the new public marina as part of our goals.

16 And the most important goal of all, it achieves
17 what I think is a mutually shared goal of everyone in
18 the room, of an empty spent fuel pool as safe and as
19 practical as possible.

20 There was question earlier: Was this the best
21 technical solution that we sought? Yes, it was. We had
22 a very rigorous process, and this rose to the top, and
23 it was a good solution for our location on many fronts,
24 and you are going to hear more about that.

25 And, again, tonight we want to invite your

1 questions. We won't have every answer as well, but we
2 think of this as the tip-off, almost like a scoping
3 meeting, to gain more questions so we are sure as a
4 utility and as the service provider and the panel that
5 we are addressing the questions and concerns that folks
6 might have about the project and the implications of
7 this selection.

8 This process looks similar because it's a
9 similar licensing process to what Philippe showed you
10 earlier for license renewal except this is for the
11 licensing of the new system.

12 So if you think back on the left third of this
13 timeline here -- the public input before it went to
14 request for proposal, the panel's Strategic Vision -- we
15 had the risk -- independent risk study completed by the
16 John B. Garrick Institute at UCLA.

17 We had our workshops under the Public Utilities
18 Commission, and that occurred in Sacramento at the
19 California Energy Commission's office.

20 And then, separately, the California
21 Energy Commission was willing to engage and
22 independently provide technical input for PG&E's request
23 for proposal by executing a nondisclosure agreement; so
24 that gave them access to proprietary information from
25 the fuel design through the technologies that address

1 how to store the fuel.

2 They gave us some input at a couple locations.
3 Both in the risk study, they asked us to look at a
4 couple different things that we put into the scope for
5 UCLA. That was helpful.

6 They then helped shape some technical criteria
7 for the bid process; and then, when the technical scores
8 came back, they pointed out that actually the whole
9 litany of responses were technically adequate and
10 feasible at Diablo Canyon.

11 So they were involved in a unique way not
12 required by any of the regulatory pathways that we
13 faced, but it was another way to give the public some
14 assurance from someone that understood the material and
15 had technical expertise and ultimately was a public
16 advocate and not an employee of the utility or the
17 service providers.

18 So then we had that confidential review for the
19 next couple of years and awarded the contract. I'd like
20 to remind folks how fresh this contract award is. It is
21 exactly two weeks ago today, and the panel had made a
22 commitment to hold its first in a series of public
23 meetings within two weeks of that announcement. So we
24 barely made it, but here we are, and it's nice to be
25 back in public again.

1 So speaking of "here we are." You see the red
2 arrow. So now, by the end of this year, Orano and PG&E
3 will work together, and they will make their licensing
4 application or update to the Nuclear Regulatory
5 Commission.

6 That process will take some time as well. It
7 can have public input -- you see on the chart there --
8 and we expect that to be similar timing to the License
9 Renewal Application we have.

10 That's good because, if we achieve that in 2024
11 or 2025, that still gives us a couple years to set up
12 because we are looking to transfer the fuel in that late
13 '26, 2027 time frame; so we are still about five years
14 out for completing the project, but you can see we are
15 on track, and we have been at it now for a good five
16 years.

17 I will let this slide sit for a second. We
18 have shared this once before. But this just shows, from
19 the Strategic Vision, we cite the key criteria that the
20 RFP addressed, and Orano will go into greater detail
21 about how we achieved these.

22 But we, in the selection process, took into
23 account, for instance, the 80-year design life.
24 Linda Seeley earlier talked about our dry cask storage
25 system currently was licensed for 20 years and then

1 could be renewed for 40 years.

2 The regulations have changed since we
3 implemented that first system, and so now an original
4 license for a new system is 40 years with a subsequent
5 renewal for 40 years.

6 What that really means is, when both these
7 processes are completed in 2025, we will have a licensed
8 dry cask storage facility for our current and our future
9 system through the 2060s.

10 And we expect and we, in fact, demand as a
11 utility that there be a storage solution that is not at
12 Diablo Canyon. We still pursue that remedy with the
13 Department of Energy, with the Nuclear Regulatory
14 Commission, and with the policy makers; so we want to be
15 ready to ship as well, and the Orano system will provide
16 that for us.

17 Additional background here -- we talked about
18 this a little bit on the earlier slide, but we had the
19 Energy Commission collaboration, that independent risk
20 analysis from the B. John Garrick Institute at UCLA, and
21 we also convened our own independent technical review
22 panel -- pardon me -- to challenge us from former NRC
23 and industry experts.

24 So even when we thought we were right, we had
25 this independent group that really challenged us to get

1 some intellectual competition to the process and the
2 decision; so that was very helpful.

3 Here is some of the meat of the selection
4 process. We have already talked about the top; right?
5 We had a couple years in development of the RFP.
6 Everyone in the industry new it was coming.

7 In fact, many of the vendors had participated
8 in this panel's workshop; so folks knew it was coming.
9 Once the RFP was issued, they had three months to
10 respond.

11 And then after that response came in, similar
12 to a permitting process, there's some additional
13 requests for information between the utility and the
14 bidders. They seek clarification. They do things like
15 site walk-down.

16 So that is why this selection process is
17 1.5 years. This is an interactive process with
18 cooperation along the way to be sure that the bidders
19 have access to all of the information they need to make
20 a timely and informed contract with the utility.

21 And speaking of the contract, here is the
22 weighting and the scoring for the bids that came in. So
23 public safety and technical capabilities were
24 40 percent. So think about the design of the cask, how
25 it handles the heat load, its dose and shielding that it

1 provides to workers and the public.

2 Safety -- how does that company behave from
3 industrial safety? Do they lift safely? Is their
4 technical practices, their industrial and occupation
5 safety, what score do they achieve there?

6 And then commercial terms. Don't confuse that
7 with pricing. Think long-term support. Is the company
8 going to be around for the duration of this project?
9 What level of support can they offer you.

10 That's very important. If I need a part in
11 2038 I want to be sure they can provide it. So that
12 type of rigor with our sourcing group looking at that
13 really has a safety-related effect in the project.

14 Pricing does matter, and it was only 20 percent
15 of the weighting, and then we also had some supply chain
16 responsibility and sustainability issues. We do this
17 broadly across all PG&E contracts. We look at the
18 social aspects of the contract as well.

19 And then our team at the company -- and
20 separate from that process I talked about with the
21 Energy Commission and the industry experts -- our
22 internal team is listed below. So you can see there's a
23 very broad cross section of folks to be sure that the
24 criteria in the middle section of this slide were
25 adequately evaluated.

1 Orano's footprint in the U.S. is pretty vast.

2 They are going to go into more detail on that, but they
3 are used in California also at a couple of locations,
4 and the panel has visited both of those; right?

5 You have seen this in service at Rancho Seco,
6 and you've seen this in service at a mixed facility at
7 the San Onofre facility -- right? -- so you've seen both
8 Holtec and Orano at that location.

9 Oh, one thing I want to go over in the center
10 here, and this is really important to us, and we are
11 excited about it, is their INPO Certified Training
12 Center in South Carolina.

13 So INPO is the Institute of Nuclear Power
14 Operators, and they are a very rigorous accrediting
15 agency. We have an INPO accreditation for the
16 operations of our plant. It looks at things like our
17 training, our operations, you know, how we do and pursue
18 excellence at the nuclear facility.

19 Orano's training has gone through that same
20 training; so workers go there for five or six weeks and
21 get to practice loading, handling the systems, and get
22 detailed technical training before they are deployed in
23 the field. Very, very excited about that component, and
24 they will go into greater detail on that this evening.

25 They have global experience as well; so here's

1 some other systems around the world. The slide deck
2 speaks for itself. I will just let that sink in for a
3 second.

4 And then the key reasons why they were awarded
5 the contract. All right. Their horizontal system --
6 they're an industry leader in it; it has a proven track
7 record throughout the U.S. and offers us some
8 advantages, including the thermal dissipation of the
9 large heat load.

10 They are going to get into detail on that
11 tonight with some schematics for you and address your
12 questions on that.

13 The current system is licensed by the NRC but,
14 as we've described, Orano will update that Certificate
15 of Compliance to be sure that it envelopes all of
16 DCDEP's site characterizations.

17 We think it's a very technically robust system
18 that will meet or exceed all those criteria. And when
19 we look at the technical feedback and the stakeholder
20 feedback, the system is really strong for in situ
21 inspection, repairability.

22 The shelters and the overpacks that it has are
23 really robust. When we look at those and their
24 footprint, everything fits in the existing ISFSI.

25 And then it still comes down to that time, that

1 they are really looking at about 23 months; so, when we
2 think about the old technical capabilities and, what we
3 call a "tech spec," and going from that ten years to
4 inside of two years, we've seen this technology improve
5 throughout the industry for a long period of time.

6 It reminds me of how fuel economy improves
7 marginally over cars over time or how cell phone
8 batteries get better.

9 The thermal capabilities of the casks across
10 all the manufacturers have also increased, and that
11 results in shorter loading periods.

12 The current Diablo Canyon ISFSI is a
13 site-specific license. We talked about this twice, but
14 the NRC has this other process called the "Certificate
15 of Compliance" that allows for anyone with a Part 50
16 license to use that manufacturer's licensing and put it
17 at their site.

18 A good example I can give you is in the
19 aviation industry. Boeing and Airbus licensed their
20 fuselages with the FFA for use; Southwest Airlines and
21 United don't go do that. They get a craft that's
22 approved for use. That is what we are doing here. It's
23 pretty simple.

24 And so -- and we are not breaking any new
25 ground here. There's sites -- and there's four listed

1 below -- that have a combination of licenses, Part 50
2 and Part 72, which is the site-specific license.

3 And here is what that looks like: It's hard to
4 tell the systems apart. The asphalt doesn't indicate
5 the paperwork; right? It's just side-by-side systems
6 that satisfy the criteria for the NRC to store spent
7 nuclear fuel at our location.

8 And then there are many locations across the
9 U.S. -- over a dozen -- that employ multiple vendors
10 over time to store their system. So these 15 sites have
11 more than one vendor or one storage solution during the
12 operations of their plant.

13 So, again, we are not breaking any new ground.
14 When we had that robust RFP process, we wanted to be
15 very competitive and deliver the best technical product
16 for Diablo Canyon.

17 So our key takeaways -- we selected it because
18 it's the great, safe system for us, and it is going to
19 handle -- I think the question earlier that Panel Member
20 Lathrop had -- it will handle all fuel that is currently
21 stored in the spent fuel pools and all fuel that is yet
22 to be generated from Diablo Canyon and discharged
23 because of it's operation through 2025.

24 It's a very competitive bid process. I would
25 actually like to thank some of our sourcing team. They

1 are here tonight. Blood, sweat, and tears for several
2 years -- to be sure of that.

3 And the technical team as well. They know what
4 it means to this community, and they want to deliver a
5 safe product.

6 And I would like to remind the panel that no
7 one works closer to that system than they do. So it's
8 very important. I think we've got a really competitive
9 product here, and I'm really proud of the relationship
10 we are going to have with Orano moving forward.

11 So next steps -- again, tonight is kind of the
12 tip-off of this conversation. We want to scope
13 questions and information that we should be sharing.

14 We have our next panel meeting on May 25th
15 where there will be an exclusive deep dive into the new
16 selected system.

17 And then our proposal is, with the panel's
18 input, to have some open houses, almost a workshop, at
19 our energy education center and then have regularly
20 scheduled tours during that throughout that day to take
21 people out to the current ISFSI so they can see the
22 site, experience it, have the context.

23 The slides are pretty good, but there's no
24 better experience than being at the site, walking down
25 to the facility, understanding it's 300 feet.

1 We sometimes get questions, is it similar to
2 San Onofre? What's your height difference? There's no
3 comparison between those locations. They have a more
4 constrained site than we do, and we have a benefit of
5 having a lot more buffer and a lot more elevation.

6 So with that I am going to turn it over to our
7 guest, and we are going to switch PowerPoint
8 presentations; so we are going to ask your indulgence
9 for just a second.

10 ROGER MAGGI: So thank you for allowing me to
11 come here tonight and speak to you. I have been told I
12 am quite loud and usually don't need these.

13 So I just want to thank you for the opportunity
14 to kick this off and engage with the panel; and,
15 therefore, the community.

16 I want to thank PG&E for their trust and
17 confidence in our technology and our people. I can
18 assure you that this project has been reviewed up
19 through our board of directors in Paris. This is a very
20 high-visibility project.

21 Our CEO was just over here two weeks ago, and
22 was here for actually the signing of the contract; so
23 this is, I want to say, a flagship project for us for
24 the next several years, and we are here to answer
25 questions, be transparent, build trust.

1 This is our first interaction. I look forward
2 to many more. You are invited to access our people, our
3 facilities, whatever it takes to make the community
4 comfortable with this process and this equipment. Thank
5 you.

6 So we will go ahead and move into the
7 presentation. This being our first meeting, if you
8 don't mind, I would like to spend a couple slides just
9 giving you a feel for who Orano is. I still say Orano
10 sometimes. I have been with this company for multiple
11 decades through many, many changes; so I will answer to
12 all of them.

13 So Orano as a broader group headquartered in
14 Paris, really supports the entire nuclear fuel cycle
15 from the mining conversion and enrichment of uranium all
16 the way through the back end of recycling in the case of
17 Europe and much of the world, recycling of that used
18 nuclear material into material that can be used again
19 and more safely stored, but also on the back end in
20 terms of dry fuel storage and also the decommissioning
21 and dismantling of facilities.

22 We also have Orano Med which supports nuclear
23 medicines, which I will refer to here in a minute
24 because I am very proud of that.

25 But, again, give you a flavor of who we are.

1 So 16,000 employees worldwide. Very committed over the
2 last five-plus decades to nuclear fuel cycle, and we
3 intend to be here for five-plus decades.

4 For, specifically, the business unit that will
5 perform this activity -- nuclear packages and services.
6 You see on the schematic there, Orano TN handles
7 basically all nuclear materials from the fresh fuel or
8 the uranium products that go into the fresh fuel.

9 Again, mentioning the mining conversion
10 enrichment processes. So we transport that material.
11 The fresh fuel is -- also requires transportation. We
12 handle that from not just Orano but other vendors as
13 well.

14 We handle the spent fuel coming out of the
15 reactor and into storage. We also handle the waste; so
16 the waste either created during operation, maybe in the
17 form of -- in the case of a BWR plant, the control
18 blades that have to be changed out, not just the fuel;
19 so cleaning those up, packaging them, and preparing them
20 for storage and transportation.

21 As well as, you know, the LGTCC, which will be
22 the reactor internals coming out of the decommissioning
23 units as well as, you know, the larger hardware itself.

24 So, again, if you don't mind, I will just take
25 a sidetrack here and mention nuclear medicines. I'm

1 very proud of this, and this is something that began
2 five or six years ago.

3 And it really came out of the material that
4 comes from the mining waste and this ability to harness
5 the power of the lead-212, which is a powerful
6 alpha-emitting isotope that can be used in nuclear
7 medicines.

8 We have the unique capability to produce this
9 isotope, which is very short lived; so we have to be
10 able to produce it and ship it, and it has to be used
11 within about 12 hours.

12 But in combination with biologic molecules,
13 this strong alpha emitter can be attached to an antibody
14 which seeks out the cancer and attaches to its antigen
15 and therefore delivers that alpha particle source
16 directly to an individual cancer cell which saves the
17 cells around it.

18 And in the case of the more aggressive cancers
19 like pancreatic cancer, it is important to save the
20 organ while you are taking out the cancer.

21 We are in Phase 2 trials for this medicine, and
22 we are building new facilities to produce it in greater
23 quantities. So I just wanted to share that as a nice
24 benefit of just the overall nuclear portfolio that we
25 pursue.

1 So specifically about the Diablo Canyon
2 off-load -- and, again, we may not get into every detail
3 that you want to. I look forward to, you know, more
4 discussions in the coming weeks and months; so I thought
5 I would get kind of broad and then we can drill down a
6 little bit.

7 So the images you see here, the image on the
8 right is an array of horizontal storage modules, and
9 these are the heavy concrete modules, reinforced
10 concrete, thick walled for shielding, and that array is
11 the first EOS extended optimized storage array that was
12 built in the U.S., and that was installed at the
13 Davis-Besse Nuclear Power Plant, and that was in 2018
14 for loading and 2019.

15 They were loaded in 2019, and they were
16 loaded -- up to this point in the industry there hadn't
17 been any loadings that exceeded about 32, 33 kilowatts
18 for a given canister.

19 The EOS system has a capability up to 50
20 kilowatts, and Energy Harbor chose to take advantage of
21 that on the very first loading of a brand new system,
22 and we successfully loaded eight systems with an average
23 heat load of over 45 kilowatts.

24 And the reason I mention that is because, in
25 the picture on the left, we went back the next year and

1 we performed an inspection on our older canisters, which
2 are on that same pad that are 20-plus years old.

3 So, again, the aging management project
4 inspections, and we parked the inspection trailer on the
5 array where those high-heat canisters were loaded.

6 There were 10 or 12 people working on that
7 ISFSI pad for that week during those inspections. It
8 was the first aging management program inspections that
9 we had performed, so we took our time, and it took a
10 little longer. The entire crew picked up 11 milligram
11 for that week, and most of that was picked up by the
12 people that were at the canister being inspected.

13 So against that array full of very hot
14 canisters that are equivalent or even higher heat loads
15 than we expect to load at Diablo Canyon, did not really
16 see any significant dose from that activity; so I just
17 want to point that out as, you know, a kind of pragmatic
18 explanation of the capabilities of that system.

19 Our off-load, full pool offload experience --
20 because that is what we are here to do and take
21 advantage of those capabilities -- our most recent pool
22 off-load was literally finished April 10, 2022, at a
23 plant to be named once they issue their own press
24 release.

25 We were full scope, performed the entire

1 operation from the licensing activities even though it's
2 an existing system, licensing at four additional
3 capabilities or, in this case, failed-fuel canisters,
4 fabrication, and then the pool-to-pad activities to
5 remove all the fuel from the pool.

6 There were 30 systems loaded, including a
7 special canister that we had to engineer and fabricate
8 for the failed-fuel assembly that you see there in the
9 inset picture.

10 That is the top of a BWR, boiling-water reactor
11 assembly, that bail handle that you see bent over should
12 not be bent over; so it wasn't able to be handled in the
13 normal means; so, first, we had to devise a way to cut
14 that handle safely from the fuel assembly, lift that
15 fuel assembly, and then place it into a special can
16 which then went into the canister.

17 Given all that, we finished that spent fuel
18 pool off-load in 20 months from the unit's shut down in
19 August of -- yeah, August of 2021 -- August 2020.

20 So 20 months total. The previous record for
21 the industry for any off-load was at the Pilgrim
22 Station, and that was executed in 30 months. And just
23 to explain a little bit about how the schedules are
24 determined. It's not necessarily how fast each
25 individual canister can be loaded. Whether you load one

1 a week or two a week, that really doesn't determine your
2 end date.

3 Your end date is preselected based on your fuel
4 characteristics. So you take the hottest fuel assembly
5 coming out of the last cycle, when can that be put into
6 a canister?

7 And you pin that date; that's the right-hand
8 end of your schedule, and you work back to the left.
9 You figure out when your pad needs to be ready, when
10 your modules need to be installed, when your canisters
11 need to be fabricated, how you want to do your schedule.

12 In this case at this plant, we ran 24/7. We
13 achieved over two systems per week. One set of transfer
14 equipment, and it was a very short operation. But,
15 again, it was determined by the end date of that last
16 fuel assembly.

17 Here, for this project, what we're currently
18 looking at is a date out in mid-2027 as the end date
19 based on fuel characteristics. There is margin in that
20 schedule where we could actually finish earlier, but we
21 will set up our schedule so that we only have to load
22 one canister per week.

23 And there's advantages to that because the
24 supporting teams from PG&E, they will basically know
25 every day of the week what they are doing. Typically

1 you come in on -- the crew prior has set up the cask in
2 the pit with a canister in it; so then the loading crew
3 comes in on Sunday night.

4 They load all the fuel, it's verified, and then
5 on Monday you start processing the canister, which means
6 removing the water and drying and then welding the
7 canister shut.

8 And then by Wednesday evening, Thursday
9 morning, you are moving to the ISFSI. And that's like
10 clockwork literally. And most of our campaigns where we
11 are not doing full off-loads, where we're just doing --
12 at an operating plant we're doing a 10-canister or
13 12-canister campaign -- we always set it up so that we
14 are just doing one canister a week, Sunday to Wednesday
15 evening or Thursday where we're pushing the canister in
16 the HSM.

17 Then you recover and get ready, you have time
18 off. You meet all the requirements for rest at the site
19 as an operating unit. Security, HP, operations, those
20 people at the plant that are supporting you, you know,
21 they don't get into a 24/7 cycle. They are just on a
22 normal day-to-day routine; so that's what we plan for
23 Diablo Canyon.

24 We did, like I said, yeah. So we were, you
25 know ten months faster than the previous record, less

1 than the dose goal. So that's the fourth pool off-load
2 that we've executed since 2017.

3 This will be the fifth one that we will start,
4 and everyone of those off-loads have been achieved
5 without safety or regulatory issues. We have been on
6 budget, under projected dose safely. All right. So
7 that's the key.

8 So that's just a snapshot of our history with
9 just full pool offloads, and of course we do multiple
10 campaigns every year at our different sites for
11 operating plants.

12 A little bit about the EOS storage system. So
13 this is a licensed and loaded system at multiple plants.
14 We will be loading 69 of these systems; so, again, EOS
15 is "Extended Optimized Storage." The "37" just means
16 that we can fit 37 individual fuel assemblies into this
17 canister.

18 The "P" stands for "PWR," your "pressurized
19 water reactor"; the "T" stands for "transportable," so
20 the system is fully transportable; and it is high heat,
21 which is what the "H" stands for.

22 So we will be using 69 of these systems for the
23 fuel and then five TN radwaste canisters, which are very
24 similar to the fuel DSC dry shield canister, except they
25 don't have a basket; so that would be for the greater

1 than Class C waste.

2 So this proposed system can handle 50 kilowatts
3 of total heat, and as I stated before, we've loaded up
4 very close to that already at several plants.

5 We will be going for an amendment, which will
6 analyze our ability to go up to 4.2 kilowatts per fuel
7 assembly, and that's important because that ability to
8 take a higher individual fuel assembly.

9 When you look at that last operating core, that
10 last set of fuel that has the highest burn up, we need
11 to be able to distribute those assemblies between
12 canisters up to eight hot fuel assemblies per canister,
13 and the higher heat we can take, the farther that
14 schedule can move to the left.

15 We are currently at 3.5 kilowatts per fuel
16 assembly. We will get to 4.4 kilowatts with the
17 amendment.

18 Again, we have loaded at multiple power plants
19 already, and we will continue to load EOS systems, you
20 know, many, many, many more systems before the
21 Diablo Canyon project.

22 In terms of the capabilities to handle the
23 Davis -- or not Davis -- the Diablo Canyon specific
24 conditions -- you know, you see the conditions here.
25 Environmental conditions and natural phenomenon --

1 that's where you get into seismic, to heat, to flawed
2 extreme environmental conditions.

3 Blast and airplane crash performance. Smart
4 flood, which is basically just blocks the vents.
5 Doesn't actually come up and cover the system, but
6 blocks the inlet vents for airflow, the ability to
7 handle that type of a flood. Landslide conditions where
8 you get vent blockage.

9 Beyond design basis earthquakes -- design
10 margin under extreme heat, fuel retrieval, and then
11 monitoring inspection -- so we will meet all of these
12 requirements. We already meet most of these
13 requirements.

14 We will do the analyses to show that we can
15 meet the upgrade seismic requirements although -- I will
16 show you here in a few slides -- we've already met, you
17 know, much more stringent requirements at other sites
18 down the coast.

19 I will focus on the seismic because that, I
20 know, is one of the major concerns for this plant. What
21 we intend to do for these systems, as we did at SONGS,
22 these were already high seismic systems. They will be
23 upgraded and basically tied together to form a larger
24 monolithic block.

25 This block will be freestanding on the pad as

1 it's meant to absorb energy and dissipate it through,
2 you know, very minimal sliding on the pad in terms of,
3 like, millimeters or centimeters on the pad. That's how
4 it basically discharges the energy.

5 By tying these systems together -- and you can
6 see the tie bars that go across the top of the modules
7 between the systems -- if you look at the cutaway they
8 are also tied towards the base of the modules
9 front-to-front, back-to-back, side-to-side.

10 So this becomes, then, again, one model that
11 they block each array -- which we will talk about -- at
12 the site layout will be tied together.

13 With the low center of gravity and wide base,
14 that allows this system to withstand, you know, very
15 high seismic events, again with, you know, minor sliding
16 to dissipate that energy, and that is by design.

17 We did have an earthquake back in 2011 centered
18 only a few miles from the North Anna Nuclear Power
19 Station in Virginia. There was a lot of actual surface
20 ground shaking in that event. Not a very deep
21 earthquake, but the shockwaves were very
22 surface-oriented, and these systems, you know, did see
23 ground accelerations that were calculated to be around
24 .6 g's. The site requires analysis up to .85.

25 We inspected those systems immediately after

1 the earthquake, and they had not moved, and they were
2 not tied together. So that was just an individual
3 system on the pad in that kind of ground acceleration
4 and there was no movement.

5 There were vertical systems on the pad as
6 well -- casks, not canisters -- and they did show
7 displacement from their original position. Again, just
8 anecdotal discussion.

9 This is a depiction of what we see as the site
10 layout for your arrays. So the arrays that you see
11 there are separated. There are -- I think, let's see,
12 one, two -- six across. You have a double array, and
13 then you have a single array.

14 So in that double array, you will have a
15 six-by-two configuration. All of those will be tied
16 together in one monolithic block separated by about four
17 feet in between the adjacent array on individual poured
18 pads.

19 Again, even in the very high seismic events, as
20 Sandia Labs had determined in their study commissioned
21 by the NRC, these rectangular systems have no chance to
22 tip over, and they only show very, very minor lateral
23 displacements, so they are -- and there is more than
24 enough room around these systems to account for any
25 seismic displacement.

1 In terms of extreme heat, again, we are
2 designed and licensed for heat loads up to 50 kilowatts.
3 We have loaded up -- you know, near that, and that 46
4 kilowatts is about the highest heat load we expect to
5 load at Diablo Canyon.

6 The average for the entire project looks like
7 it will be about 43 kilowatts based on your fuel data
8 that we have; so we have margin, significant margin in
9 the event that we see, you know, surface temperatures
10 that get to the extremes.

11 If you look on the right, and you see the
12 modelling of the airflow through our horizontal storage
13 module, that is really where you get down to the benefit
14 of horizontal versus vertical in terms of cooling. And
15 we have already talked about seismic.

16 So for cooling we can send a lot of air
17 directly into the hottest area of the canister. So you
18 see in the green and yellow up in the bottom of that
19 model, that's the air acceleration or velocity coming
20 through the bottom in the middle of the canister which
21 targets that hottest area of the canister and then flows
22 around it and then out the top of the storage module.

23 So that cooling, again, hitting that hottest
24 area first instead of maybe hitting the bottom of the
25 canister and having the air flow up, getting heated as

1 it flows up, in that case you are not necessarily
2 protecting the top of the fuel very well because the air
3 is hot before it gets to where it needs to be.

4 So, again, horizontal distributes air across
5 the canister in the middle where it's hot and allows for
6 better dissipation.

7 Heat loads over time -- this curve here at the
8 bottom right, heat load is on the left, and then across
9 the bottom axis is time.

10 Even if we are loading 50 or 46 kilowatts on a
11 system, you are going to see the same type of drop off
12 or regression. We will have detailed curves that match
13 your site in future discussions as we develop all the
14 engineering documentation and analysis.

15 But after just a few years your heat levels
16 drop off very significantly giving you more margin to
17 withstand the extreme temperature events if they should
18 occur in the future.

19 So canister handling and retrieval -- so
20 this -- these graphics kind of show you how our system
21 works in a nutshell. The canisters come from the fuel
22 building in this orientation on the hauler. They are
23 simply, you know, moved onto the ISFSI pad. Alignment
24 takes place just moving, again, just centimeters, you
25 know, to make sure the alignment is right to receive it

1 into the storage module.

2 If you look at the bottom left image in that
3 cutaway, the canister -- cask and canister are fully
4 supported on the hauler, and then as it is pushed into
5 the module onto the support rails, again, it's fully
6 supported that entire time.

7 So there is never a condition where this
8 canister is moved or lifted above it's analyzed drop
9 height. So we can drop it from a height higher than
10 where it sits right there, and we're analyzed for that,
11 and the fuel is okay. We never lift it above that
12 point. So it slides in, slides out.

13 So when you retrieve it, same thing. You back
14 the transfer -- in this case it might be a transport
15 cask -- up to the module. You do your alignment, you
16 pull the system into the cask, and off you go.

17 All right. So we will talk about aging
18 management and the ability to inspect these systems. I
19 think enough has been said about aging management in
20 terms of what it takes, you know, in time for corrosion
21 to initiate and then potentially affect the canisters.

22 You are loading very, very hot fuel. By
23 design, these systems for the off-load, it will take
24 many, many, many years for that canister to be cool
25 enough to even initiate corrosion, and corrosion has to

1 be initiated before you can even think about pitting or
2 cracking.

3 So as that canister surface temperature
4 exceeds, you know, the -- just 212 degrees, no fluids
5 can exist on that canister that would mix with the salts
6 to cause corrosion to initiate; so that's probably
7 decades down the road.

8 However, we have inspected six of our sites,
9 six ISFSIs with NUHOMS systems, and even though they are
10 note EOS systems, they are virtually the same in terms
11 of the shell itself, which is what we are concerned
12 about in terms of initiating corrosion and the effects
13 of that corrosion.

14 So we inspect all the structure systems and
15 components, important safety on these systems, and there
16 are no indications of any concern of aging-related
17 degradation for any of the systems we have inspected at
18 the NUHOMS sites.

19 That includes coastal sites, as we just
20 inspected a couple months ago, SONGS -- those systems
21 have been there for 20 years. There is no evidence of
22 any corrosion even though they sit in a marine salt
23 environment closer to the ocean.

24 They actually act as a bellwether for your
25 systems. They are 20 years. By the time we load your

1 systems they will be 25 years ahead of you, and their
2 fuel will be cold, and the potential for initiation of
3 any corrosion is there once your temperature gets below
4 a certain level.

5 So by watching their inspections, they will be
6 probably 40, 45 years old before you are even in the
7 condition to initiate corrosion.

8 So we will be watching those systems, you will
9 be watching those systems, not just SONGS, but all the
10 systems we have, the NUHOMS systems in horizontal
11 storage, in marine environments and in other potential
12 chloride environments, whether it be from cooling tower
13 or road salts.

14 There are other conditions than marine that
15 cause potential for chlorides to deposit in our systems.
16 We will have hundreds of systems out there that are more
17 advanced in the aging than yours, and you will know
18 what's going on well before anything can happen here
19 aside from the actual inspection process that will be
20 part of aging management at Diablo Canyon.

21 The image there in the center is actually our
22 cold spray tool for repair of canisters. We were
23 contracted by SONGS to complete that project so that
24 their systems were fully inspectable and repairable
25 prior to our initial 20-year license renewal exam.

1 So that system was ready to deploy to site. We
2 didn't send it because the first process there is
3 inspection, visual inspection with the qualified
4 cameras. We used the same cameras that were used at
5 inspections here on the vertical systems.

6 If you would have seen anything that would have
7 caused concern, as Philippe said, it would have gone
8 into the site's Corrective Action Program.

9 If it was determined that additional
10 information was needed, we had the ability to further
11 inspect using volume metric techniques, phased array,
12 eddy current, NDT, to determine characteristics of any
13 flaw.

14 If it was determined then that the repair had
15 to be effected, we had the ability and the time really
16 to plan that repair and execute it.

17 That system that you see here is what we call
18 the inspection ring. It is now an inspection repair
19 ring with the inspection of the cold spray module.

20 We did have that ready to deploy to SONGS.
21 That blue shield is for radiation protection. That's a
22 water shield which aids in neutron protection as well --
23 neutron shielding.

24 And basically in the upper right corner you can
25 see the system would basically be retrieved. And,

1 again, only in a very extreme, you know, repair-
2 necessary condition, right. You would pull the canister
3 through the inspection ring into the transfer cask.

4 As you pull it through, you can stop at the
5 area of concern, do all your exams, clean the canister,
6 do the UT, do the eddy current, characterize the flaw,
7 put the canister back. And once you evaluate the flaw,
8 determine that it needs to be repaired, you plan the
9 repair and execute it.

10 But, again, this was the safety that SONGS
11 wanted to have in place. There was no indication of any
12 aging-related issues at SONGS at this time. But we are
13 fully inspectable and repairable for your systems.

14 This, again, is a NUHOMS system, same HSM and
15 canister configuration, and this system would work here
16 at Diablo Canyon as well.

17 Transportation -- so you are actually looking
18 at an image of transportations that were executed over
19 the last couple of years out at Vermont Yankee. We are
20 performing the decommissioning services up there; so
21 this is actually a greater than Class C -- actually, not
22 greater than Class C because that cannot be transported
23 right now. A, B, and C waste that was removed from the
24 plant and transported down to Texas from Vermont for
25 BWR.

1 This is the exact same configuration and
2 transport cask that would be used to send fuel from that
3 same site down to a central interim storage facility
4 that we have licensed in Texas.

5 The only difference that you would see if this
6 were going down the rail would be an armored escort
7 vehicle supplied through the DOE, and you would probably
8 see five to ten more systems in line with this one, but
9 these were individual shipments.

10 But, again, the logistics, the permitting, the
11 planning, the working with the stakeholders, that is all
12 the same; so we are -- we are transporting nuclear even
13 today.

14 And I am going to refer to my notes here
15 because I don't want get this wrong, but this is
16 important. So there's not really an operational
17 concern. There are 5,000 nuclear shipments worldwide
18 every year.

19 200 shipments of used nuclear fuel by rail in
20 Europe every year. 2,700 for front end of the fuel
21 cycle; so that's the material used to create fuel
22 bundles.

23 150 shipments for research, reactors and
24 laboratories, including used nuclear fuel. Not in the
25 same large quantities, but in individual fuel assemblies

1 or fuel pens that have been irradiated, and then 2,500
2 shipments for waste and contaminated tools and
3 equipment. That is per year globally.

4 In the U.S. there are greater than 350
5 shipments per year with 300 shipments for front-end
6 material, approximately 25 shipments for research,
7 reactors, and laboratories, including used nuclear fuel.

8 And then 25 shipments approximately for waste
9 and contaminated tools and equipment.

10 So, again, it's not, you know, how do we ship
11 or what we ship because we have been shipping fuel in
12 the U.S. for decades. So this can be done.

13 We intend to be doing this in the near future.
14 And I will actually close with the consolidated interim
15 storage facility that we have licensed in Texas. It's
16 the only facility to currently have a license.

17 We will be working with all of the
18 stakeholders, the government -- federal government and
19 state government -- to see our way to actually making
20 this facility operational.

21 We are a partner in this facility with NAC; so
22 we do work with other vendor partners. So we will be
23 able to take all systems. This is a licensed facility
24 for welded canisters, whether those be horizontal or
25 vertical canisters.

1 It is our intent as Orano, as the group Orano,
2 strategically to have at least one operating central
3 interim repository within the next ten years; so by the
4 time your fuel is ready to ship, we will be ready to
5 take it.

6 So that actually concludes my remarks, and I
7 really, really appreciate your time. Thanks.

8 MR. ANDERS: Thank you very much. We are
9 running a little bit behind on our agenda as far as time
10 is concerned.

11 So we will take a few minutes if the panel has
12 any comments or questions of PG&E or Orano. Linda.

13 LINDA SEELEY: Thank you for your presentation.
14 Very interesting.

15 ROGER MAGGI: You are welcome.

16 LINDA SEELEY: Couple of questions. First of
17 all, why -- you said that this is a high-visibility
18 contract at the beginning of your remarks. Why?

19 ROGER MAGGI: It's the most spent fuel that's
20 been offloaded from one reactor, and it's the shortest
21 duration for very hot fuel and showing the ability to
22 get the fuel pools emptied in a shorter time, which
23 is -- it is safer to get the fuel into the dry
24 storage -- for us to be able to show that our EOS system
25 has basically upgraded the capabilities for the industry

1 in a project like this is very important for us.

2 There are no other projects on the horizon that
3 gives us this capability to showcase the systems and our
4 technology and our ability to execute again our fifth
5 full off-load with a system that really exceeds the
6 current industry technology.

7 LINDA SEELEY: Okay. Thank you.

8 MR. ANDERS: Do you have another question?

9 LINDA SEELEY: Yeah, I have another one. Have
10 you been told by PG&E how many damaged fuel assemblies
11 they have out there?

12 ROGER MAGGI: We do know that. We have all
13 that fuel data; and, you know, the final cycles and the
14 final pours will be analyzed as they come out.

15 It could add to that number, but fuel
16 inspections are part of this, you know, process; so
17 things that may be thought to be damaged will be
18 inspected and determined if they meet that definition,
19 but we can handle all of that. All the damaged fuel.

20 LINDA SEELEY: Even the damaged ones.

21 ROGER MAGGI: Oh, yes.

22 LINDA SEELEY: And also you talked about a 24/7
23 operation, and I -- it seems to me that that might be
24 very stressful on the workers.

25 ROGER MAGGI: Right. So we did perform a 24/7

1 operation at both the Fort Calhoun and the more recent
2 full pool off-loads, and that's handled much the same
3 way that outage work is handled.

4 And that's one of my areas in my background,
5 you know, working at a power plant during a refueling
6 where everything is critical path and your team does
7 work 24/7, but the individual obviously does not.

8 So we have rotations, we have limits on hours.
9 54 hours a week, which is actually much shorter than the
10 typical outage worker, which typically works 72 hours a
11 week; so we have a rotation of teams and crews.

12 We actually have an Alpha Bravo Charlie Delta
13 crew, and they rotate so that the individual worker is
14 still seeing that five or six days a week, 10 or
15 11 hours a day.

16 They are not even in a full outage-type mode,
17 and many of the workers that we employ are very
18 experienced nuclear power plant outage workers who are
19 used to working 70 to 80 hours a week.

20 So these teams rotate. It will be a larger
21 crew, but the rotation prevents the fatigue issues.
22 However, again, we would like to keep the Diablo Canyon
23 project on a standard one week, one canister, it's
24 basically a four-day process so that we do not go into
25 that 24/7 operation.

1 We have the ability to flex up to that if we
2 need to make up some schedule, but that's not the intent
3 for the project.

4 MR. ANDERS: Thank you, Linda.

5 Next we have Scott, then Bill, then Tim, and
6 Kara.

7 SCOTT LATHROP: Great. Thank you. Yeah, I
8 have a couple of questions actually. Well, maybe four
9 or five questions. I'm just kind of interested in your
10 assembly of the storage units itself.

11 It looks like in the pictures that you have
12 it's kind of like linking logs. It seems like the
13 panels are put together. You also mentioned tie rods of
14 some sort tying those together.

15 I am assuming that those are encased in
16 concrete after the fact that they are put together or
17 are they exposed to the weather or how does -- how does
18 that work?

19 ROGER MAGGI: I am going to let the design
20 engineering manager answer that.

21 SCOTT LATHROP: Yeah, okay. And the primary
22 reason for the asking of it, because I am assuming it is
23 steel, and, again, we are on the coastline, it corrodes
24 fairly quickly. Most of the time you would encase that
25 in concrete or seal it in some way.

1 RAHEEL HAROON: Right. I think in the picture
2 we just showed them encased in concrete just to get an
3 idea of what those tie rods would look like, but after
4 they're tied they would be encased in it.

5 SCOTT LATHROP: Okay. Great. And then also
6 showing with the pictures the -- your system would be
7 sitting on the existing ISFSI, and right now it has
8 steel rings in place already.

9 Would those need to be totally removed in order
10 to create a flat surface for your units to be placed?
11 And will those units be mounted in some way to that
12 ISFSI or will they be floating?

13 RAHEEL HAROON: So those rings will be removed
14 to make up a flat plate, a flat surface.

15 SCOTT LATHROP: So you have to cut off all
16 those anchor bolts and everything?

17 RAHEEL HAROON: We will cut those off, and our
18 units will be freestanding on it. They are not going to
19 get anchored to the pad.

20 SCOTT LATHROP: They'll be floating on the pad.

21 And then, as far as your system sliding the
22 canister in and out of the overall -- I want to say --
23 the storage unit.

24 I was just curious about -- is there -- is
25 there a roller system or is it a slide. What -- what

1 does it slide on?

2 RAHEEL HAROON: So what we do is we put a --
3 sorry -- so what we do is we put a special coating on
4 top of the steel that reduces the friction; so you slide
5 on top of it. There are no rollers for this system.

6 We do have roller designs for the system, but
7 not for the one that is proposed for Diablo.

8 SCOTT LATHROP: Just interested as far as any
9 scoring of that canister, whenever, when you put it in
10 and out; so I was just concerned about that.

11 And then another question. You mentioned, as
12 far as dry cask storage or interims, dry cask storage,
13 do you foresee any of these new casks going directly to
14 Texas versus to our ISFSI?

15 I am just thinking as far as, you know, what's
16 stored on-site versus off-site.

17 Do you see the -- the complications that you
18 may have in Texas would be resolved where it could
19 receive these --

20 ROGER MAGGI: Right. So the transportability
21 is determined by the dose rate of the canister; so it
22 has to age off --

23 SCOTT LATHROP: So it would have to go to the
24 ISFSI --

25 ROGER MAGGI: -- before it would qualify to be

1 shipped.

2 SCOTT LATHROP: No? Yes?

3 ROGER MAGGI: Sorry. I was talking over him.

4 Your fuel is probably going to take 10 to 15 years to
5 cool enough so that the dose rates what would allow
6 for --

7 SCOTT LATHROP: Transportation.

8 ROGER MAGGI: -- shipment under the current
9 transport rules.

10 SCOTT LATHROP: Okay. So definitely they would
11 have to go to the ISFSI for a period of time?

12 ROGER MAGGI: They will absolutely have to go
13 to the ISFSI.

14 SCOTT LATHROP: Okay. Thank you.

15 MR. ANDERS: Thank you, Scott.

16 Bill, and then Tim, and then Kara.

17 BILL ALMAS: Thank you for your presentation.

18 I thought it was very concise and professional. I had a
19 question on the -- it's my understanding that you needed
20 license amendment, which is not unusual, but what is the
21 scope of that license amendment?

22 The main thing I am trying to get out is what
23 are the unpermitted aspects of the system at the present
24 time?

25 ROGER MAGGI: I could tell you, but it's really

1 Raheel's expertise.

2 RAHEEL HAROON: Sure. The main scope of the
3 amendment is to allow for fuel assemblies to be loaded
4 at 4.2 kilowatt heat load. Right now the license allows
5 for up to 3.5 kilowatts; so it's just the upgrading
6 that -- that assembly.

7 Whereas the overall heat load, which is the
8 primary factor that determines the capacity, that will
9 remain at what it's licensed for right now, at 50. We
10 are not trying to increase the heat load part of the
11 entire canister.

12 BILL ALMAS: Thank you. And then you don't
13 anticipate any real issues with that? You have already
14 loaded to that point?

15 RAHEEL HAROON: The total heat load, we have
16 loaded up to that point, but not the maximum heat load
17 of the fuel assembly.

18 ROGER MAGGI: And to go from 3.5 to 4.2 there
19 will be a change internal to the basket, which we'll be
20 prepared to discuss at a later date, but it's not a
21 significant change. Just allows for better heat
22 absorption.

23 BILL ALMAS: And what would your schedule be
24 for that amendment?

25 RAHEEL HAROON: So right now we are in the

1 process of starting to do the evaluations for it; so we
2 expect to submit it later on this year --

3 BILL ALMAS: So probably two years --

4 RAHEEL HAROON: -- to the NRC --

5 BILL ALMAS: -- from now you'll have --

6 RAHEEL HAROON: Right now --

7 BILL ALMAS: -- the amendment?

8 ROGER MAGGI: Eighteen months.

9 BILL ALMAS: Okay. Very good. Thank you.

10 MR. ANDERS: Thank you, Bill.

11 Next Tim, and then Kara.

12 DR. TIM AURAN: Thank you for coming. Great
13 presentation. The current system that we have, I know,
14 has some variation between some of the casks with the
15 types of steel and things like that.

16 Are there any current installations that you
17 have that are identical to the model and composition of
18 what will be used at Diablo Canyon?

19 Are these -- is this basically an exact
20 duplicate of other installations that you currently
21 have?

22 ROGER MAGGI: Not an exact duplicate. So
23 they're, as I mentioned, to get to that 4.2 kilowatts
24 there will be a very minor change to the internals of
25 that basket. For the high seismic there will also be

1 the tie rods that will be added, you know, to create the
2 larger monolith.

3 That's been done down at SONGS, but it was done
4 to a -- what we call an "HSMH," not an EOS-HSM. For
5 practical purposes they are the same, but one is
6 slightly larger than the other, so not identical, but
7 very, very, very similar.

8 DR. TIM AURAN: And the amendment that would
9 be -- the amendment that you're going forward with would
10 encapsulate all of these issues, all of the changes
11 between the SONGS system and this one?

12 ROGER MAGGI: Yeah, I believe the scope does
13 address everything; right?

14 RAHEEL HAROON: Yeah. There will be -- along
15 with the amendment there will be a couple other changes
16 that we are going to be implementing through an internal
17 licensing review just for the small changes.

18 But everything that is related to the heat load
19 will be done through the amendment.

20 DR. TIM AURAN: Okay. Thank you.

21 MR. ANDERS: Thank you, Tim.

22 Our last question from Kara. Oh, Sherri has
23 one. Sherri got in under the wire.

24 Okay. Kara and then Sherri.

25 KARA WOODRUFF: Great presentation. Thank you

1 very much.

2 ROGER MAGGI: Thank you.

3 KARA WOODRUFF: Three quick questions. You
4 said that there was no evidence of corrosion on the
5 casks at SONGS. Last summer I was present for the
6 inspection of the casks and we saw some rust.

7 Since then, I guess, we have determined it is
8 not a real threat, but are you saying that, if I was
9 looking at one of your casks at SONGS or in the future
10 at Diablo, I wouldn't have seen that rust stain?

11 ROGER MAGGI: I don't -- I don't have that
12 data. We were told that there were no indications of
13 corrosion on the canister.

14 There are -- there are cases in the industry
15 where there have been carbon particles embedded into the
16 canister from either handling or manufacturing. Those
17 carbon particles will rust and just cause a surface
18 blemish. I suspect that maybe some of the indications I
19 saw tonight on the other inspection were indicative of
20 that.

21 As the OEN we were not asked to evaluate
22 anything that was related to actual corrosion of
23 stainless steel.

24 KARA WOODRUFF: Okay. Thank you. You had
25 mentioned that the heat, the maximum heat that could be

1 experienced in these casks could be 50 kilowatts. What
2 would -- just curious.

3 What would happen if it did go over 50? Does
4 it crack in half or what is the negative impact of that?

5 ROGER MAGGI: Well, the NRC would be heavily
6 involved because we would have misloaded a canister.

7 I am going to put that on Raheel as the design
8 engineering manager. I could give my opinion, but it's
9 better to come from him.

10 RAHEEL HAROON: Sorry. That is a tricky
11 question. A canister is not going to split. 50
12 kilowatts, you are talking about possibly -- depends on
13 where it is and how you loaded it -- could potentially
14 exceed the temperature requirements; right? And
15 temperature will lead to other issues.

16 But, like I said, even with the 50 kilowatts
17 and at this site, where your temperatures are not at the
18 height and with the new design system for, I don't see a
19 big impact. But it all depends on how much that you are
20 talking about, but it's not going to go up to 100
21 kilowatts.

22 KARA WOODRUFF: Okay. And, finally, who do you
23 hire? Who do you work with? Are these local people?
24 Do you bring them in from Paris, France?

25 ROGER MAGGI: We have. That gets interesting.

1 So our teams are made up of, again, experienced nuclear
2 professionals with a lot of atoms experience, nuclear
3 experience.

4 We keep those people employed as much as they
5 want so that they are available to us. Typically they
6 like to work, you know, a campaign or two and then they
7 like to be off. We have a very high return rate with
8 our people.

9 So the people that we will bring here are
10 experienced in our systems. They have loaded them for
11 years and years. They are trained, again, in our
12 facility down in Aiken, South Carolina, at that NUHOMS
13 University facility.

14 It is a, you know, pretty rigorous course,
15 about six weeks. Even if they have loaded for us in the
16 past, they periodically have to go back through that
17 training and qualification process.

18 We will hire local craft as necessary,
19 especially during the concrete work, the HSM horizontal
20 storage module fabrication; so that's basically rebar
21 tying and concrete pouring. We provide the oversight,
22 construction supervision, but those would very likely be
23 local craft labor.

24 KARA WOODRUFF: Thank you.

25 ROGER MAGGI: Yeah.

1 MR. ANDERS: Thank you, Kara. And, Sherri,
2 last question.

3 SHERRI DANOFF: Okay. Yes. Tom Jones of PG&E
4 mentioned that your contract involves construction of
5 the facility to store greater than Class C radioactive
6 material.

7 If that facility was expanded somewhat, is it
8 feasible that the existing spent fuel that is stored now
9 at the ISFSI could be transferred to that facility -- to
10 the new facility?

11 ROGER MAGGI: Just to be clear, that facility
12 is another pad?

13 SHERRI DANOFF: It's just a pad.

14 ROGER MAGGI: It's a pad.

15 SHERRI DANOFF: Okay. Thank you.

16 ROGER MAGGI: With the same storage modules. I
17 do understand the question.

18 SHERRI DANOFF: Somehow I thought it was an
19 enclosure. Thank you.

20 MR. ANDERS: Okay. Thank you all very much,
21 and thank you PG&E and Orano for your presentation.

22 Now we are to the public comment portion of
23 this segment, which is on the new proposed selected
24 spent fuel storage system.

25 So now would be a good time to take Dr. Auran's

1 advice and stand up and stretch. If anybody -- I see a
2 couple of folks are nodding off up here. It's getting
3 late, and I really appreciate everybody's endurance in
4 this meeting.

5 It is an important topic, and there's a ton of
6 things to cover. So I have one blue card of people who
7 wanted to speak here in person. One of them. Two blue
8 cards. And I have three hands raised online. Online,
9 Eric Greening, Pierre Oneid, and Jill Zamek.

10 Is everybody fully stretched? I want to turn
11 this segment over to Bill Almas for a couple of opening
12 comments.

13 BILL ALMAS: Well, I think I will emphasize
14 again what's been said a couple times. The panel is
15 seeing this information at the same time the public is;
16 so really we are in your seat there as well because we
17 haven't had a chance to digest any of this.

18 So it is truly a scoping meeting. We want to
19 know what your questions are from what you've seen today
20 so that they can be addressed at the upcoming May 25th
21 meeting.

22 For those online, please feel free to post your
23 comment. It will be addressed in some way at the
24 May 25th meeting. Or if it's a short easily-answered
25 question, you might even have it tonight. So with that,

1 let's go.

2 MR. ANDERS: Thank you, Bill.

3 So we have two comments here in person and then
4 four hands up online. We are going to have -- every
5 person will have two minutes to make a comment, and our
6 first speaker is Mary Matakovich.

7 PUBLIC COMMENT

8 MARY MATAKOVICH: Matakovich. How is that?

9 MR. ANDERS: Please state your name and spell
10 your last name for our court reporter and the record,
11 and your residence and if you represent anyone.

12 MARY MATAKOVICH: Okay. Thank you. Just press
13 the button?

14 ZEKE TURLEY, AGP: Yeah, make it turn red.

15 MARY MATAKOVICH: Thank you. Good evening.
16 It's been a very informative evening for me, and I
17 appreciate the opportunity to address you. My name is
18 Mary Matakovich, M-a-t-a-k-o-v-i-c-h. I am a resident
19 of Avila Beach, as well as I serve as a Port San Luis
20 Harbor District commissioner and as a liaison to our
21 Avila Valley Advisory Council.

22 So I'm representing the Avila Valley Advisory
23 Council tonight by emphasizing the letter that we have
24 sent you on April 11th, and I hope you have all read it.
25 But I would like to say a few words about our letter.

1 The Avila Valley Advisory Council has
2 appreciated representation of Avila, Avila's interest on
3 the decommissioning panel, and our council member,
4 Sherri Danoff has been instrumental in keeping us
5 informed.

6 Time after time we get reports, and she updates
7 us on what's going on with this panel. It's very
8 impressive, and we need it translated sometimes into
9 just kind of basic -- basic facts.

10 And if I could give you an example of her
11 approach with us, you know, we share our concerns. She
12 explains a little bit more about what the work of the
13 panel is and then addresses our questions.

14 And Sherri has been very instrumental now in
15 the intended to decision to barge the majority of the
16 waste materials from Diablo instead of the 70,000 truck
17 trips through tiny Avila on our narrow winding road.

18 Despite that Avila is the community, which has
19 the most -- will be most effected by commissioning
20 activities and also storage of used fuel in the future.
21 Whoops. Am I out of time?

22 We ask you to -- we ask you to assure the
23 continued representation of Avila's interest on the
24 panel. Avila Valley Advisory Council asks that an
25 ex officio position be placed on the panel and be

1 established with Sherri Danoff who has served in this
2 capacity.

3 Please, Avila needs to have an experienced
4 representative on the panel, and we thank you for your
5 consideration.

6 MR. ANDERS: Thank you, Mary.

7 Our next speaker is Susan Strachen.

8 SUSAN STRACHEN: Good evening. Wonderful to
9 see all of you in person. I'm Susan Strachen,
10 S-t-r-a-c-h-e-n. I am with the San Luis Obispo County
11 Planning and Building Department.

12 And I have a question. In the agenda it talked
13 about changes to the ISFSI structure, and I don't --
14 this is late for me, I am usually asleep by now, and so
15 maybe I nodded off -- but I was wondering if that could
16 be talked about tonight or if it could be discussed at
17 the next meeting.

18 MR. ANDERS: I was distracted when you were
19 talking; so I didn't catch the question.

20 SUSAN STRACHEN: Okay. There was -- on the
21 agenda it talks about changes to the ISFSI structure
22 containment berms, and I didn't hear that talked about
23 in the presentation tonight; so I was wondering if you
24 could touch base on that next month.

25 MR. ANDERS: Okay. We will include that

1 question for the 25th, and if we have time after this,
2 you may have the opportunity to raise that question.

3 SUSAN STRACHEN: Thank you.

4 MR. ANDERS: Thank you.

5 I have been give one more blue card for a
6 speaker here, and Bruce Setters.

7 BRUCE SETTERS: Thank you. I have a couple of
8 questions. I guess I just want to ask three or four
9 questions and hope the right person stands up and
10 responds to each one; so I am not sure exactly who to
11 address them to.

12 There was mention of some of the assemblies
13 that need to be loaded into the new cask systems having
14 been damaged. I am just curious about a little bit more
15 detail about what that damage entailed.

16 There was apparently a failure on the part of
17 the prior contractor to load the proper pattern of hot
18 and cool assemblies into the casks, and that seems to me
19 to be a grievous error, and I would like to hear a
20 little bit about how that kind failure mode might be
21 mitigated and if there's checks and double checks and
22 it's not one guy looking at the plan.

23 How is the 4.2 kilowatt heat level determined
24 to be the safe threshold? I understand the 50 kilowatt
25 total heat level of the assembly or the cask is

1 considered to be kind of the maximum threshold.

2 A question was asked of the engineer involved,
3 like, what's the worst thing that can happen? And he
4 basically gave a fairly general answer that bad things
5 happen. I would like a little bit more specific answer
6 about what those bad things might be.

7 And, you know, why would we risk accelerating
8 the schedule by a year, let's say. I mean, I understand
9 there is money to be saved. That's good for
10 everybody -- the diversified uses and repurposing can be
11 accelerated, et cetera. But why would we not just give
12 a greater margin of error to adding another year?

13 To me, I personally have no emotional
14 investments in having this be a showcase of how fast we
15 can do it, you know.

16 So to me it's like -- I don't want to break a
17 world record in that category; so explain a little bit
18 more about --

19 ZEKE TURLEY, AGP: Past time.

20 BRUCE SETTERS: -- what the cost tradeoff is
21 there. Just slowing down the speed a little, if that's
22 possible. Thank you.

23 MR. ANDERS: Thank you, Bruce. Those are
24 exactly the kind of questions I think the panel is after
25 to raise to be discussed at the next meeting on the

1 25th.

2 So let's move on to our online participants.
3 Each person will have two minutes, and our first speaker
4 is Eric Greening. Eric Greening, are you here?

5 ERIC GREENING: Can you hear me?

6 MR. ANDERS: Yes, we can. You have two
7 minutes. Please state your name, your residence, and
8 any affiliation.

9 ERIC GREENING: I am Eric Greening,
10 G-r-e-e-n-i-n-g. I live about 25 to 30 miles due north
11 of the plant. And my question -- first question is the
12 timeline relative to licensing and public comment. That
13 public comment may be somewhere around 2023 or 2024, and
14 yet I understand the Nuclear Regulatory Commission will
15 be holding a hearing in San Luis Obispo, Wednesday,
16 May 4th.

17 And I am wondering what is the purpose of that
18 hearing? What is the scope of that hearing? And is it
19 cross-purposes or is it in alignment with what we are
20 talking about today?

21 My other question that relates to timeline is,
22 basically, with this stretched-out licensing period and,
23 obviously, to get to the NRC's licensing period,
24 obviously it cannot be rushed.

25 Before it is concluded it sounds as if the

1 County will be needing to go through its CEQA process
2 from which this component is exempt and issue a land-use
3 permit for which some changes must be made to have a
4 valid permit.

5 And I am just wondering, given the preemption,
6 the ability to intervene in this, if it's going to have
7 to use the information base of what's been learned
8 through the licensing process, what information base
9 will be available to the County to make required health
10 and safety findings for the high-level waste system?

11 Thank you.

12 MR. ANDERS: Thank you, Eric. Tom Jones said
13 he could address that one question very quickly.

14 TOM JONES: Yeah, Tom Jones with PG&E. So the
15 NRC's public meeting on May 4th is with the
16 decommissioning rulemaking. It's not associated with
17 the fuel management process at all.

18 Once the application for the COC has been made
19 to the NRC its public process will take over and make
20 the parties aware of the time frame in which they have
21 to file to participate in that proceeding.

22 MR. ANDERS: Thank you, Tom.

23 Our next speaker is Pierre Oneid. Please state
24 your name, spelling, and any affiliation.

25 PIERRE ONEID: Yes, can you hear me?

1 MR. ANDERS: Yes, we can. Please go ahead.

2 You have two minutes.

3 PIERRE ONEID: Okay. This is Pierre Oneid, and
4 I am with Holtec International. We are headquartered in
5 Florida with our factories in New Jersey.

6 And I wanted to thank you for the opportunity
7 to speak to the panel. I would like to begin with an
8 apology to PG&E, the panel, and the local community for
9 the tone of my letter of April 6th.

10 You see, in the last 15 years we have had 20
11 nuclear units that changed their dry storage system from
12 Orano to Holtec and never the other way around until we
13 received this shock.

14 We care deeply about Diablo Canyon Plant and
15 the community, and we have safety and technical
16 concerns.

17 Once notified I traveled to San Luis Obispo and
18 had the pleasure to meet with community leaders,
19 including three members of this distinguished panel, and
20 learned of a unique Diablo Canyon Independent Safety
21 Committee which consists of eminent nuclear scientists
22 and engineers.

23 Absent a meaningful dialogue with PG&E
24 leadership, we will communicate our specific safety and
25 technical concerns with the IFC this week.

1 Again, apologies for the tone of the letter,
2 and thank you for your time.

3 MR. ANDERS: Thank you very much, Pierre.

4 Our next speaker will be Jill Zamek, followed
5 by Kaylene Walker. Jill.

6 JILL ZAMEK: Hi. Jill Zamek, Z-a-m-e-k. I
7 live in Arroyo Grande. I remain confused about the
8 material that I have read.

9 The press material states that Orano's extended
10 optimized storage system has been licensed for use at
11 other facilities and approved by the NRC, and then it
12 goes on to say that the system design includes enhanced
13 thermal and seismic capabilities, which require
14 additional NRC safety reviews.

15 And then I'm listening tonight, and it sounds
16 like there needs to be some physical modifications made
17 in order to accommodate the increased thermal and
18 seismic requirements.

19 And Holtec's response in that letter stated
20 that the NRC review affects the schedule, not the
21 already robust license capabilities of our system.
22 There seems to be a contradiction there.

23 It seems that the system, the Orano system has
24 to be modified, and that hasn't been approved yet by the
25 NRC; is that correct?

1 MR. ANDERS: Someone is going to answer that.

2 RAHEEL HAROON: That is correct. The system
3 does need to be modified a little bit, and it needs to
4 go through an amendment process with the NRC.

5 ROGER MAGGI: So if I could respond. It's the
6 same module performed at SONGS for the amount of
7 acceleration that's going to be over 50 percent
8 higher --

9 MR. ANDERS: Mic, please.

10 ROGER MAGGI: -- (indiscernible.)

11 MR. ANDERS: Hold on. The answer is correct.
12 So any further comment? Thank you very much.
13 Our last speaker is Kaylene Walker.

14 KAYLENE WALKER: Hi. Kaylene Walker,
15 W-a-l-k-e-r. (Indiscernible.) I am familiar with
16 San Onofre, Holtec, and Orano system. A couple of
17 questions. I will just rapid fire the questions, and
18 then you can answer them as you will.

19 You said that the consideration of embedded
20 carbon parcels in a canister is not an issue of concern.
21 I think that should be looked into. That would break
22 through a very thin chromium layer and potentially
23 create a pit corrosion problem. I think it's worthwhile
24 looking at that.

25 Question: Has your repair technology been

1 evaluated or approved by the NRC or ASME? At
2 San Onofre, Holtec presented the repair technology, but
3 we found out then later that it had not been evaluated
4 or approved by NRC or ASME.

5 At San Onofre Orano got an exemption from
6 taking radiation readings at the outlet air vent. Will
7 the outlet air vent radiation readings be gotten at this
8 facility?

9 A note to verify. Cracked canisters have no
10 seismic rating. Orano, I think in one of your slides
11 you claimed fuel retrievability.

12 I am wondering, do you actually mean fuel
13 retrievability or if this is an alternative definition
14 as in NRC's ISG 2, Revision 2, where they defended a
15 canister retrievability?

16 I am wondering what your fuel inspection method
17 is. If you just do a video camera or if you actually do
18 a vacuum can sipping or in-mast sipping. Is it -- you
19 know, what is your fuel inspection? With a 50 kilowatt
20 heat load, that is a frightening heat load.

21 That is almost double the 30 kilowatt heat load
22 at San Onofre, and that is alarming for the problem that
23 could incur with the fuel, which is what we are storing,
24 the fuel could be (indiscernible) -- high-pressure
25 (indiscernible.)

1 In the unlikely event of a canister failure, my
2 question is, Orano, do you plan to put a canister into a
3 overpacked cask?

4 ZEKE TURLEY, AGP: That's time.

5 KAYLENE WALKER: And if that is your plan, has
6 that been evaluated or approved or requested for
7 approval from the NRC. Thank you very much.

8 MR. ANDERS: Thank you.

9 KAYLENE WALKER: These are serious questions
10 that the community -- those are serious questions that I
11 believe the community should be aware of these kind of
12 issues. Thank you.

13 MR. ANDERS: Thank you. And those are good
14 questions to continue this discussion on the 25th.

15 One of the reasons we have this meeting is to
16 learn about the system and to solicit questions like
17 that that can be addressed at the next meeting. Linda.

18 LINDA SEELEY: Question for you, Chuck. The
19 questions that came in, these past few, they are
20 recorded. They are being -- will they be transcribed so
21 that we have them for the next meeting?

22 MR. ANDERS: Yes, they are transcribed, and
23 they are also recorded on video.

24 So those questions and all of the public
25 comments tonight will be put into the public comment

1 forms; so all of the public comments we have received on
2 all the meetings so far have been added as individual
3 comments to your public comment form.

4 LINDA SEELEY: So we will be able to retrieve
5 those for the next meeting?

6 MR. ANDERS: Yes. And with that segue into the
7 next meeting, and I just want to emphasize the next
8 meeting is on May 25th. It is going to be a public
9 meeting just like this one.

10 And the focus of that meeting is to address
11 more detailed questions that the panel has and that have
12 been raised by the public like the questions we just
13 heard.

14 And by collecting this information now, PG&E
15 and Orano will have a greater opportunity to provide
16 thoughtful answers and do additional research, if
17 necessary.

18 So I want to emphasize to everyone who is
19 listening online and everyone here tonight that you can
20 submit additional comments and additional questions
21 going forward on the panel website at
22 DiabloCanyonPanel.org, and just click "Submit Comment,"
23 fill out the form.

24 Submit your question, you can add attachments
25 if you would like, and that information will be made

1 available, immediately available to the panel and PG&E,
2 and we will review all of the input so that that is
3 consolidated in a manner that PG&E can address at the
4 next meeting.

5 We are about ready to adjourn the meeting. Do
6 any of the panel members have any closing comments?
7 Linda, have you got any thoughts?

8 LINDA SEELEY: Well, I appreciate this meeting
9 very much tonight. I think -- I think we have done a
10 good job. I think we also made a dent, and I think that
11 our next meeting is going to be probably a lot more
12 technically oriented than this meeting was.

13 But I really want to thank people for coming
14 and people for tuning in online. It is really important
15 to us. Thank you, and thank you, Chuck, for your
16 facilitation.

17 MR. ANDERS: You are welcome. I do want to
18 remind everyone that you can also go to the panel
19 website to get information about this meeting. All of
20 the presentations you see tonight will be available
21 online tomorrow, and the video screen of this meeting
22 will also be available. It takes about a day to get
23 that up, and so on. In about two weeks we will have the
24 written transcript of this meeting.

25 So, with that, I think everybody is probably

1 ready to close. I want to thank all of our people who
2 support this meeting. We have Diablo Canyon Fire, the
3 SLO County Sheriff's Department here providing support,
4 Trudy O'Brien, our transcriber, and our folks that are
5 doing hearing translation are here.

6 It takes a lot to put on a meeting like this in
7 addition to the PG&E staff that has supported this and
8 hosted the exhibits and the open house that provide the
9 opportunity to see a lot of information and speakers; so
10 I want to thank everyone on behalf of the panel and
11 myself.

12 If no one has any further comments, let's
13 consider this meeting adjourned.

14 (The hearing concluded at 9:29 p.m.)

15 --ooOoo--

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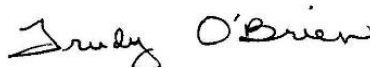
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22 recommended that your office review its policies regarding sharing of

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