PG&E DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL

PUBLIC MEETING

COUNTY GOVERNMENT CENTER

BOARD OF SUPERVISOR'S ROOM

1055 MONTEREY STREET

CERTIFIED TRANSCRIPT

SAN LUIS OBISPO, CALIFORNIA

WEDNESDAY, JUNE 24, 2020

6:02 P.M. - 9:31 P.M.

REPORTED BY MELISSA PLOOY, CSR #13068

MR. ANDERS: I'm Chuck, the facilitator of the engagement panel, and this meeting is our second meeting in 2020 and it is focusing on the transportation of non-radioactive materials and low level radioactive waste. We're doing a Zoom meeting today. I hope everyone is patient with us. This is the first meeting using Zoom that we have tried and we're using Zoom in order to make sure that the public and anyone who would like to offer live public testimony has the opportunity to do so. The panel will hear your voice. Your testimony is being taken in a transcript and will also be available on video. So it's an effort to make this meeting as open to the public and provide the opportunity to receive your input. So hopefully if anybody is having problems or anything, please use the chat feature to let us know if you're having problems or have any questions.

With that, I want to begin the meeting. With those people who are speaking, we have a combination of panel members that are here in the board of supervisors chamber, which is the normal meeting place. To comply with the county guidelines, we can only have ten people in this chamber and we also have other panel members that are participating remotely. So it's a combination of people, panel members and PG&E support staff in

person and also panel members participating remotely. All of our other speakers are participating remotely. So we appreciate everybody's efforts with this format.

To begin the meeting, I want to turn it over to Nancy O'Malley, Dr. Nancy O'Malley, who has been invaluable in helping the panel scope out the hurdles that we have to comply with with regard to the COVID-19 guidelines and also just plain common sense to keep the panel safe and the public safe to minimize any exposures.

Nancy, you want to open up the safety briefing for us?

DR. O'MALLEY: I just want to state --

MR. ANDERS: No need to turn on your mic. It will pick it right up.

DR. O'MALLEY: Oh, okay. I just want to say a special welcome to everyone for being here and especially to the public for coming and listening in on Zoom or if you're hearing our recorded message later and of course a special welcome to Dr. Garrick and Dr. Roy. Thank you for your report and for being with us here tonight.

We have a full agenda. I just want to go over, really, the main purpose of the meeting, which is to understand the impacts and risks of transportation of

the non-radiological material or low level radiological material that will be transported with the decommissioning. So just to remind you that tonight we're not going over the spent nuclear fuel and transportation of that. That will be done at our next meeting in the fall.

The other goals of this meeting is to receive an update from PG&E. They will be addressing the bankruptcy and many other issues and issues related to decommissioning. We'll also be reviewing and discussing the results of the transportation risk analysis conducted by the B. John Garrick Institute For Risk Sciences at UCLA. They'll be making a representation on their report. We're looking forward to that. We'll also be reviewing the current panel activities and the application process for the engagement panel membership. As some of you may know, we're trying to recruit some new members that might be interested, anyone from the community, and, also, lastly, we're going to have a time for public participation and we want to hear from the public and find out what your concerns are and any issues that you would like to see addressed.

So we look forward to our full agenda today, and with that, I'll hand this over to Chuck.

MR. ANDERS: Thank you, Nancy.

Next item is to review the meeting agenda, if you can go to the next slide presentation. I'll just go ahead and just summarize it very quickly as that's being brought up.

We are -- we're going to initially hear from Sherri Danoff, who is going to provide to the panel members, and Sherri has been the chair of the transportation working committee and overview of transportation concerns associated with decommissioning. Linda Seeley is going to talk a little bit about NRC radioactive levels. We're tonight talking about low level radioactive materials waste and in September we'll be talking about high level radioactive waste and the difference between them.

We're fortunate to have a presentation from Dr. John Garrick and Dr. Chandra Roy with the UCLA Institute For Risk Sciences, which we did a study on the risks associated with transporting materials associated with decommissioning. We're also going to hear tonight from county planning and county public works, Caltrans and CHP with regard to issues associated with local roads and concerns regarding transportation. PG&E will provide an update on a number of topics and then we'll have the opportunity for public comment, looking forward to hearing comments and concerns from the public, and

that's pretty much going to take -- take up most of the evening tonight.

So going forward, let's go to our next agenda item, and Sherri Danoff, the chair of our transportation committee. Members of the committee are Linda Seeley, Kara Woodruff, Nancy O'Malley and they've really been invaluable and done a ton of work with the issue of transportation of decommissioning materials. So Sherri.

MS. DANOFF: Okay. Good evening. I want to emphasize again that the decommissioning panel anticipates holding a meeting in September to focus on on-site storage of spent fuel and eventual transportation from Diablo to a federal repository. Presentations tonight focus on transporting non-radioactive and low level radioactive waste from the power plant. Note that assuming retention of the breakwater, approximately half the waste material proposed for removal has no radioactive or other contamination and could remain on site in some manner after the power plant is decommissioned. If no solid repurposing proposal comes forward for uncontaminated facilities, one alternative to transporting demolished waste from Diablo may be for the waste to form a contoured hill. An additional alternative to transportation could be leaving uncontaminated buildings

standing.

To begin tonight's presentation, a decommissioning panel member will briefly describe categories of low level radioactive waste followed by PG&E presenting its proposal for transporting decommissioning waste from Diablo to disposal locations, then a presentation from the Garrick Institute For Risk Sciences at UCLA will address its comparative risk assessment for transporting decommissioning waste materials by truck, train and barge. The chart that you see on your screen combines two tables from the risk assessment. The rows in gray show what is excluded and assumptions for numbers of one-way trips to transport non- and low level radioactive waste material.

Following the Garrick presentation, a decommissioning panel member will provide a panel summary of the risk assessment. Transporting decommissioning waste materials involves potential transportation impacts to local community in addition to radiological risks such as traffic noise and emission fumes from 70,000 two-way truck trips over 10 years or alternatively marine impacts of 180 two-way barge trips. These potential impacts are anticipated to be addressed by the presentations from county and state agencies.

In addition to agencies presenting tonight,

other agencies have transportation rules. These include the Department of Transportation at federal level, which has safety thresholds for land transportation, and also the Navy and our Coast Guard with oversight over barging. The U.S. Nuclear Regulatory Commission has regulatory rules over transportation, as well. Thank you.

MR. ANDERS: Thank you, Sherri. Next item is to discuss -- Linda. Linda Seeley is going to give us an overview of low level -- the difference between NRC radioactivity levels. Linda.

Will people that are participating remotely, it may take a couple, three seconds to actually hit your voice. Make sure you're not muted and you can hear us. So we'll take a couple three seconds and kind of wait for folks to jump on. Linda, go ahead.

MS. SEELEY: Okay. Can you put up my slides? Here we go. Low level -- it's interesting about low level waste. Low level waste is considered anything that's not spent fuel rods and so the -- as the slide says, it says it's all of the commercial nuclear waste except for the irradiated fuel. That means waste goes from very small levels to very toxic levels and they're classified as Levels A, B and C, C being the highest and, of course, A, B lowest. The waste is taken to

various approved disposal sites, but we'll see in following slides in the Garrick report the types of containers that they're put in.

Can you go to the next slide? A low level waste is defined by exclusion. It doesn't fit into the definition of high level waste, spent nuclear fuel or transuranic wastes. Transuranic wastes are the very heavy substances that are created by nuclear reactions. So it's a definition by exclusion of what it's not, not what it is.

So for the public, this is rather confusing because it's such an opaque matter. We don't -- when you hear the term low level waste, you usually think, well, couldn't be that bad if it's low level, but what I want to emphasize is, yes, indeed, it is very toxic.

Okay. Next slide. And these among some of the things that are classified as low level waste, we have tritium, which is H3 with a hazardous life of 120 to 240 years; strontium-90 with a hazardous life of 280 to 560 years; nickel-59, which has a hazardous life of 760,000 to 1,520,000 years; iodine-131, which has a hazardous life of 80 to 160 days; and iodine-129, which is essentially forever.

And then people -- often, people say, well, look, they're using a lot of radiation in medical

treatment and they mix the waste together in these disposal sites, but common medical wastes include things that have half lives of 2.5 to 5 days, one to two months and 80 to 160 days, among other -- the half lives of medical radiation are much, much, much shorter.

I wanted to also add that there was a fire on June 4th in the Chicago area of a rail car that was shipping low level waste. The shipping manifest listed the contents as solid oxides with cobalt-60, caesium-134, caesium-137, uranium-234 and 235 and 238 and the kind of rail car it was was a gondola rail car, which is what you'll see in the following slides, too.

So this is, I guess, my -- I feel like my job here is to point out to our listening and watching audience that we are dealing with something that is quite hazardous, and as was mentioned before, we'll be talking about high level waste in September, on September 9.

Okay. I'm finished. Thank you, Tom -- I mean Chuck.

MR. ANDERS: Okay. Thank you, Linda.

So now we're moving on to the UCLA risk assessment that was conducted and -- the next item is the discussion of proposed modes, routes and volumes in the NDCTP. I'm getting ahead of myself. And so this is

what the current process that was submitted to the CPUC includes as far as anticipated routes and volumes resulting from decommissioning. Trevor Rebel with PG&E is going to provide this presentation. Trevor.

MR. JONES: Thanks, Chuck. We're going to discuss the first slide. So if you go to the next slide, please, Chuck. This is Tom Jones with PG&E. Chuck had mentioned -- the other slide. Chuck had mentioned this information that Trevor is going to go over is from the NDCTP, but a lot of the items you see are industry standard for shipping. What I wanted to bring to the panel's attention and the public's attention tonight is the reason we have our guests from the B. John Garrick Institute here is because of the panel's efforts. When we began this endeavor, you asked repeatedly why wasn't it given a waiting. That's now the case. And now in 2021, NDCTP will have equal waiting in that submission through all other forms of transportation. Barging can't get it all there, train can't get it all there. There's always going to be some mode to handle at least one transportation.

With that, with beyond our regulator consultations, including the California Coastal Commission, we've done barging in the past you'll see in a minute, but we've done temporary barging for limited

shipments. So when we're talking about the weights and volumes involved, this would require some additional infrastructure that we're beginning to evaluate. It also changes with weather because the ocean swells, things like that can change our timing. So you can see the list up there, but those are the steps we're taking now to help fully inform a barging evaluation in 2021. With that, I'll hand it back to Trevor.

MR. REBEL: Thank you. Next slide, please. We're going to talk about two different kinds of wastes in my presentation, both clean waste and radioactive waste. Clean waste for purposes of this are anything that's not radioactive that will include metals for recycling, concrete and asphalt for recycling, general construction for rebuilding your house and other regulated waste, which are house's waste like oils, asbestos siding, any lead paint that we need to take off and remove.

Next slide. As Ms. Seeley mentioned, radioactive waste is classified as A, B, C, greater than Class C waste and the only high level waste we have on our site is spent nuclear fuel, then there's a third category called the LARW, or low activity radioactive waste, and that is radioactive waste that is so low in classification, minimal detectable activity, it's

handled as part of a separate process, and then the mix we're talking about, we call it a mix, will be fully informed when we do site characterization in 2025 and that will tell us how much of each of those waste classes we have.

Next slide, please. Next series of slides are the types of containers being considered and evaluated at this time. First one is called an industrial package 1. It's a -- basically, a heavy-duty bag will be placed inside an intermodal container you can see there.

Next slide, please. This is another view of an intermodal container and it can be shipped on a truck, on a barge or be directly placed on a train.

Next slide. Here's an example of gondola rail car or ways from industrial package-type bags can be placed on the rail car and transported to the ultimate destination.

Next slide. Here's a Class A or alpha waste package that would have, for example, radioactive filters for disposition at an appropriate facility.

Next slide. Here's a type B/C waste package. Of note here is the barbell-type things on the top and bottom just for extra protection during transportation.

Next slide. We're not discussing this in detail tonight, but this is a project in the works with DOE for

transporting spent nuclear and greater than Class C waste.

Next slide. This is an important slide. This is how much material is being removed from the site. I'd like to draw your attention to the big green box. That's the amount of tonnage if the breakwater will have to be removed, and as the funnel goes down, the majority of the waste is non-radioactive and then we get into lower quantities or low radioactive waste, Class A waste, and that little tiny triangle at the bottom is bravo/charlie waste.

Next slide. The -- may be difficult to read for some, but this is the truck trips and waste removal over time. It starts in 2027 with just over 5,000 trucks or 5 trucks per day, but 2035 is 34 trucks per day. The bifurcated slide chevrons down below is the with and without breakwater removal. Without breakwater removal, you're down to 6,000 trucks or 9 trucks per day. With breakwater removal, obviously significant, 40,000 trucks if we have to take that breakwater out of the facility. And then lastly, 2067 time frame, 1,300 trucks for -- this will be removal of the ISFSI materials and restoring the site to normal.

Next slide.

MR. JONES: Before we leave that slide, just to

emphasize with the panel, that's not a fixed rate per day. That's an annualized average based on information we have today. In any type of shipping evolution, there will be peaks and valleys, but this is an aggregation of the time we intend to work and the volumes we'll be able to carry. So we won't intend to ship on a Saturday because our schedule right now for boats is 4-10s, right, Monday through Thursday, but this is an average of the workload, but if there's an evolution, there might be 30 in a day or barge in a day and then nothing the next day. So keep that in mind.

MS. WOODRUFF: Trevor, can I ask you a quick question?

MR. REBEL: Yes.

MS. WOODRUFF: On that upside down pyramid, it looks like the clean waste is about 60 percent assuming that you're taking the breakwater and the radioactive. Is that about right, do you think?

MR. REBEL: I haven't done the math yet, but I don't do math.

MS. WOODRUFF: Something around there?

MR. REBEL: Yes.

MS. WOODRUFF: Okay.

MR. REBEL: We've been thinking all along breakwater removal basically doubles your waste volume

and mass.

MS. WOODRUFF: So if you take away the breakwater, most of what you're removing has some radioactivity?

MR. REBEL: About 60 percent of it, yes.

Move to the barge slide, please. This is an example of -- the last time we barged at Diablo Canyon, we were bringing in the replacement steam generators in 2007. So this is bringing materials into the site proving that it could be done. We've done it quite successfully.

Next slide. This is an example of where the clean materials are going. This assumes the barging would be used hypothetically going to Long Beach and then from Long Beach to a rail or a truck to several other locations, La Paz, Arizona, Beatty, Nevada, Las Vegas and Salt Lake City. By California law, all materials must be removed from California.

Next slide. This is the case of barging, not a combination of truck and rail.

Next slide. These are radioactive wastes. Both the -- this is the barging case going to either Long Beach or Portland, Oregon and then truck and rail to their final locations.

MR. JONES: Can you interpret the colors for

the public, the different routes?

MR. REBEL: Yes. So, for example, the orange, slash, red near the bottom of the slide, that's for Class B/C waste and that's going to a facility in what they call WCS, Texas. The blue line would be Class A, or alpha waste, going to Clive, Utah and the LARW right now is going to USC Ecology in Idaho.

Next slide, please. This is the case if barging were not to be used for the low level radioactive materials going out.

Next slide. This is -- we'll provide this via the website. This is some of the regulations that govern the waste transfer.

Next slide. Any additional questions?

MR. ANDERS: Any questions?

MR. BROWN: Could we go back to the slide with the triangle with the various categories?

MR. REBEL: Sure.

MR. BROWN: Okay. Linda gave a summary of some of the hazard associated with low level waste. The gray one here, 205,000 tons of non-radioactive waste, is that truly non-radioactive or --

MR. REBEL: Truly non-radioactive waste.

MR. BROWN: So the ones that Linda was current about in her talk would be the dark blue one and light

blue one?

MR. REBEL: The two bottom ones.

MR. BROWN: Two bottom ones. Okay. Yeah.

DR. O'MALLEY: I have a question. So my question is regarding -- can you go back to that picture of the Class B/C waste package?

So can you tell us more about that? We're most concerned about the Class C waste and the greater than Class C. My understanding is that the greater than Class C is going to be stored like the spent nuclear fuel --

MR. REBEL: That is correct.

DR. O'MALLEY: -- right, on site?

MR. LLOYD: I'm sorry. What slide was it?

DR. O'MALLEY: It's the Class B/C waste package.

MR. ANDERS: If I can make a quick comment. Our person that's doing the transcribing or transcript needs anyone who speaks to identify themselves before you speak, please, because she can't see who is speaking or anything like that. So please state who you are before you speak.

DR. O'MALLEY: Okay. So Dr. Nancy O'Malley. Okay. So I have a question about the Class B/C waste package. Can you tell us a little bit about this

package? You know, we know about the casks and all that goes into designing those, right, to keep a barrier and to keep people safe. Can you tell us more about these?

MR. REBEL: Yeah. So Class B/C waste package is DOT-approved package. There are several in the United States usually owned by a vendor. We have a pedigree with them, they're tested and it will receive -- if a waste is classified as a B/C waste, for example, a common B/C waste is resin waste. That resin waste will be solidified, placed in a canister and then that canister will be placed inside that sleeve of this waste-carrying device and then the dumbbells, if you will, on the top and bottom are impacted if there were to be an accident on the road. That's how the package is transported to, in this case, WCS, Texas.

DR. O'MALLEY: And so -- Nancy O'Malley here again -- that sleeve, what is that made of? Is it concrete with steel reinforcement? What is that? What is the shielding?

MR. REBEL: I don't know what the shielding is on that. I can find out for you.

MR. ANDERS: Any other thoughts or questions?

Trevor, we did have one online question about the train type that you said would not be discussed tonight and that is a train type that was handling high

level radioactive waste or spent nuclear fuel, if I'm correct.

MR. REBEL: That is correct.

MR. ANDERS: And we will discuss that on September 9th when the panel will be discussing and continuing its discussion with regard to spent nuclear fuel management and that topic will include transportation. So that type of train type will be discussed on September 9th, which is the next scheduled panel meeting after this.

Panel members, any other comments or questions of PG&E? Okay. Now can I go on to UCLA?

MR. LLOYD: You may, yes.

MR. ANDERS: All right. Okay. So our next topic, I want to introduce Dr. B. John Garrick with the John Garrick Institute For Risk Sciences at UCLA.

And in previous discussion, the panel raised the question of what about barging, is barging a viable alternative and what are the risks associated with transportation of materials and radioactive wastes on the highway system, on the rail system versus barging and PG&E responded by contracting with UCLA to conduct a risk assessment of transportation of materials as a result of decommissioning and this is the result of that study. I want to point out that study is available on

the panel's website and you can view the study.

In addition to the study, the panel and the transportation committee did a quick summary, CliffsNotes is a better term, to interpret a highly technical report in a way that these are the takeaways that the panel took from this report and provide that to the public for a popular summary of the technical report.

So with that preface, I want to introduce Dr. John Garrick, who, along with his staff and Dr. Chandra Roy, conducted the study.

John, it's all yours.

DR. GARRICK: All right. My name is John Garrick. Can you hear me?

MR. ANDERS: Yes, we can.

DR. GARRICK: Okay. Well, prior to the actual presentation, I wanted to make a couple of comments. The actual presentation will be made by Dr. Chandra, who is actually the principal analyst for this study.

My first comment is this study was a collaboration effort between the Garrick Institute, UCLA Institute For Risk Sciences and the Diablo Canyon Power Plant, and while there was collaboration on the goals of the study and the source material, it was very much independent with respect to the analyses that were

performed and that's an important point.

My second point is we made extensive use of U.S. Nuclear Regulatory Commission and industry analyses judged to be applicable to Diablo Canyon Power Plant conditions. In other words, we tried to avoid redoing work that had already been done and passed the test of best practices and regulatory compliance. This is primarily reflected in using the US NRC's software called RADTRAN for which much -- that was the basis for much of the computational work.

To be sure, the risks associated with truck and rail modes of transportation, they're well-supported by a strong experienced base. One important exception and very important to this study was the analysis necessary for the consideration of using barges to ship both clean and radioactive waste. It was actually barge load capacity and minimum interaction with beach communities that were major factors in contributing to the risk benefit of this particular option, but we wanted to verify that.

In the use of barges, while not particularly new in newer applications, the experience was limited and particularly the experience with doing quantitative-type risk assessments was limited and so in that case and in the case of the barge risk assessment,

we have to do a considerable amount of modeling.

Now, my final point before Dr. Roy takes the virtual podium is on the competence of the team. I was asked to say a word about that. I believe the panel and possibly the public participants have been provided sharp vials on the presenters and the presenters, Dr. Roy and myself, have Ph.D.s from the University of California, Chandra from the Santa Barbara campus and UCLA was kind enough to grant me mine.

The point here that's most important, though, other than the degrees is that the presenters have had the opportunity of not only participating extensively in the application of the contemporary risk sciences to numerous and complex hazardous industries, including the space shuttle, but being in that cadre of professionals having a lot to do with the actual development of the technology and of this discipline, but really in the end, it's results that count. It's judged by those for whom we do our work, which in the most fundamental way is the public. So you'll be the real -- the public will be the real judge of our confidence, and with this, I'll now turn it over to Chandra to present the slides. Thank you. Chandra.

MR. ANDERS: Chandra, we're not hearing you. So maybe you're on mute.

MR. ROY: Yeah. I was muted by the host. So I think that's -- can you hear me now?

MR. ANDERS: Yes, we can.

MR. ROY: So my name is Chandra Roy and I will present the study that we performed to evaluate the risks of transportation of decommissioning wastes from DCPP to various locations out of state.

Could you please advance the slide once? So Trevor has given you an overview of the variety of waste types, both clean and radioactive, the large quantities involved and the different types of packaging that will be required. So these immediate risks using consistent framework that would permit us to compare the plan alternatives. This framework is consistent with the previous work done by the US NRC for similar operations.

So the NDCTP considers land-only transportation using truck as, actually, the previous NDCTP. As Tom told you, the next version will have barging as an option, but the addition of barging and the need to compare land-only and barging plus trucking and rail caused -- required us to put together a consistent framework.

So in addition to comparing the land-only option and barging of the NDCTP, we also did two other comparisons. The first was a comparison of the risks on

the southern route from DCPP to Pismo Beach rail yard, Avila Beach and we compared that to using the northern route that goes out from DCPP to the Montano De Oro State Park. Another comparison we did which has been talked about by Trevor and Thomas, what would be the risk benefits of repurposing the breakwater.

Next slide, please. So this table has been shown to you before and, also, Trevor talked about this. The couple of things on this slide that are interesting, one is the tens of thousands of truckloads that we have to deal with and, also, there are a couple of items that do not stop in Pismo Beach rail yard. These are the clean non-detect that goes to Las Vegas, Nevada and also the other regulated waste that contain asbestos and lead paint, PCBs and so on and so forth. That is also trucked directly from DCPP to Nevada. That doesn't stop in Pismo Beach rail yard. All the other materials, they are trucked from DCPP to Pismo Beach rail yard and then they are transported by rail.

Next slide, please. This is a table that contains the same information for the radioactive wastes, and when it comes to barging, all the materials that are going towards the south, the first stop for the barge is Long Beach Port, and for the ARW, which is shipped to -- which is planned to be shipped to Idaho,

that is the barge that goes up the coast up the Columbia River and then it stops in Portland, Oregon.

Next slide, please. To perform a risk assessment, we effectively have to answer three questions. The first question is what can go wrong with the system, and by system in this case, what we mean is the system that encompasses the transportation of the clean and radioactive wastes and the transportation modes. The second question we ask after we have answered the question what can go wrong is if something does go wrong, how likely is it to happen, and the third question is, again, in this scenario of something going wrong, what are the consequences? So the risk assessment is a combination of this information in a framework.

Next, please. So the answer to the question what can go wrong, we are looking at, actually, three kinds of risks and hazards and it turns out that one of them, nothing has to go wrong. So if you look at the oval on the top right, I don't know how visible that is, that is called non-incident radiological risks and this is something that cannot be avoided, probability of one. As a truck that is carrying radioactive wastes travels on the road, the people in the vicinity will either be -- you know, the cars on the road or they be

bystanders or people living off the road, they will be exposed to some radiation and so that is one kind of hazard we're talking about. That applies only to radioactive wastes.

The second one that we are going to talk about is the conventional transportation risks and these apply both to clean and to radioactive wastes. This is the risk of a traffic accident or a collision between a barge and some fixed -- a fixed object or train falling off a bridge or whatever and we're talking about the fatality risks associated with those accidents.

The third is the scenario of where we have radioactive wastes in the transportation package and there's an accident and the package fails, it breaks, loses containment and the materials are released and then they can be transported by wind or water and impact people who are in the vicinity. So those are the three kinds of hazards and risks that we are evaluating in this type.

Next slide, please. So I want to be clear what the boundaries of the study are. We are looking at transportation risks only. So this is the risk that is approved when the material is moving. So when it leaves Diablo Canyon and arrives at the next stop, whether it be Pismo Beach rail yard or Long Beach Port, we do not

look at the loading and loading transfer operation, we are only looking at the transportation risks and there are two reasons for doing this. One is in order to estimate the risks of the excluded operations, one would have to have detailed procedures and it's too early to have those and the second reason is that those risks are primarily occupational in nature, and even though we have not split out occupational and public risks throughout the study, our focus has been on the public risks.

Another kind of risk that we have excluded is security and terrorism risk and the reason for excluding these risks is that they are -- it is not possible to deal with them in an unclassified context. Either are work would be classified or even more likely the inputs that are required to do this well are classified.

We did look at relevant tsunamis and earthquakes and we studied them and we studied how they impact transportation systems and we concluded that there is no separate modeling required, that these risks are inherently included in the data that we are using in our calculations.

Okay. Next, please. Yes. This is actually a table just off the accident data that we have used in this study and this all comes from databases that are

either maintained by or for the federal government. We have used several years worth of data and this is a lot of data, it's high quality data. The important thing to note here is that on a per mile basis, the fatality accident rate of trucks is the lowest; however, when you take into account the fact that a barge can carry 200 trucks worth of stuff and a train can carry either 150 or 180 trucks worth of stuff, it turns out that barging is the safest mode of transportation of fatalities, next comes rail and the last is truck and barge outdoes trucking by a factor of about a hundred.

Next slide, please. So I will first talk about the conventional transportation risks, and just a matter of convenience, these risks are relevant to all of the wastes, not only the radioactive. They're also relevant to the clean wastes and the second is that after the calculations were realized, that this is the dominant risk. So I'm going to talk about it first.

We estimated these risks not with any detail to modeling, but from the high quality data that I talked to you about and what we did was to get the route lengths, the number of trips and then all you need to do is multiply that with the frequency data and you get the risks in terms of expected fatalities.

So next slide, please. So this is -- this is

the slide where we -- sorry. Once again, please. Okay. Yes. So on this table -- there are several things that I would like to point out from these two tables. This is the summary table for conventional transportation risk results. The first is that we are providing the results and expected fatalities and this is a probability weighted number of fatalities. So this is kind of easy to understand for the small numbers, which are in the bottom table, which are relevant to the local roads, for the roads between DCPP and Pismo Beach rail yard. So if you look at the number 1032 and you use distribution approximation which is relevant, then that really means that there's a 3.2 percent probability of a single fatality, a 96.8 percent probability of no fatalities and there's a very small, not zero, probability that there will be more than one fatality. So that works for the small numbers. For the bigger numbers like the 1.252 in the upper table, there is a probability that there will be two fatalities, three fatalities, so on and so forth. So multiple fatalities are possible; however, the highest probability is that for one fatality.

So the things that I would like to point out in terms of our comparisons, the first is that the southern route has lower risks than the northern route and this

falls directly from the fact that the northern route is longer, almost double the length. So the risks are always double.

The second thing I would like to point out is repurposing the breakwater results in about 25 to 20 -- something like 28 percent degrees in the fatality risks. Now, you may remember that we had pointed out that the breakwater presents about half the tonnage, but in terms of total miles, it is not half of the total truck miles -- or truck and train miles. So the reduction is not a 50 percent, but something less than that.

The third thing I would like to point out is that barging -- barging results in significantly lower fatality risks and there's something that is not on this table which comes from the details of the report is that most of the improvement for barging comes from barging the rail yard up the coast north to Oregon and then trucking it to Idaho. The barging to Long Beach Port for all the low level wastes is lower risks, but not by a whole lot.

Next slide, please. Yes. So the interesting -- the important thing is that all those fatality risks, we must remember that they are shared along the route. So when we talk about the risks on the road between DCPP and Pismo Beach rail yard, we are

talking about basically a diffused risk along the entire 16 miles. And the other thing is that this is cumulative for all of the transportation over multiple decades. This is not on a per year or per trip basis. This is accumulated total fatality rates.

It turns out that, actually, during the decommissioning, the total amount of traffic to DCPP will be reduced, but that is not part of our calculations. We have not -- we have not estimated any reduction in risks because of reduced traffic.

Next, please. We did a comparison between the southern and the northern routes. I would like to point out that the northern route does not seem to be usable for heavy traffic at the moment; however, we have used the same national average fatality rates for the northern and the southern routes, which effectively implies that the northern route will have to be improved to the point where it is suitable for heavy traffic.

Next slide, please. So this is now -- we are done discussing the conventional transportation risks and now we are starting to talk about the risks that only are relevant for the radioactive materials. So the first thing I would like to say is that the exact composition and source strength of the radioactive waste is not known at this time. So for the classification of

the wastes, you've already been told, as well as the packaging, different wastes have different packaging requirements. Those are regulated by the US NRC and the Department of Transportation. So for the sake of this study, we have made the conservative assumption that each class of waste has the highest level of activity that is permitted for that waste class and we have also assumed that the composition of the waste is similar to operational wastes currently handled at DCPP. These assumptions need to be validated after shutdown and sampling and so on and so forth.

Next, please. The calculations for the incident-free radiological risk are called RADTRAN that Dr. Garrick mentioned. This is a code that has been used -- a computer program that has been used for many years and is currently distributed by the US NRC. Using this program, we are able to calculate collective doses to the public on the road, off the road and to various categories of crew and we are also able to calculate the dose to an individual, a particular individual, the maximally exposed individual and that is defined on the next slide, I believe. Would you please take me to the next slide?

Yes. So the maximally exposed individual is a person who standing 100 feet from the back edge of the

truck or the train as it passes by slowly at a speed of 15 miles an hour and the units of those are in millirem and this is the conventional -- the customary unit for dose used in the United States.

To put this in context to what is a millirem, so it turns out that, on average, Americans receive a radiation dose of about 620 millirems in a year and half of that comes from natural sources and the other half from artificial sources, the bulk of the artificial sources being medical procedures and so on. So one millirem dose is equal to a little bit more than one day's worth of natural.

Next slide, please. So the calculations -- the results produced by RADTRAN are for collective dose and the inputs that determine what the collective dose is is the population density around the road, the speed at which the trains move in that area, the density of traffic and all of this data comes basically from databases, either census or the WebTRAGIS GIS.

The collective dose is then converted to a human health risk metric, which is the latent fatality using, again, a naturally accepted no threshold relationship. I have provided two numbers here for what a person rem of collective dose translates into in terms of latent fatalities. The numbers are different because

crew are assumed to be able-bodied persons; whereas, the public can include not only elders, but children and people with compromised health.

Next slide, please. So this is the slide which contains all of the results from the incident-free radiological risk calculations. The graph on the left is for occupational risks. This is the risks to the members of the crew. The graph on the right shows risks to public. I would like to point out a few things from this slide. The one is that the risks to the public are low. They are lower than for conventional transportation risks. Second, the risks for the southern route are lower than that for the northern route, but the overall differences are very small. If we add the occupational and public risks, barging has significantly lower risks of incident-free radiological exposure and this is obviously the -- these risks are borne by all of the people who are either driving along the -- driving on the same road or traveling along the railroad or who live on each side of the road of the railroad.

So then the question is how can we -- what do we know about an individual who is exposed to these risks, and so in the table below, dose to the MEI per trip is provided and it turns out that the maximally

exposed individual in a single trip is exposed to such a low level of radiation that if there was a person who was actually exposed to each and every truck carrying radioactive materials out of DCPP, then they would be exposed to a total of 12 millirems or about 14 days of natural background radiation.

Next slide, please. Okay. So I have finished with the second kind of hazard risk, now I will start on the third one and this is what happens if there is an accident that causes a failure of the packaging, the radioactive materials are released and then the wind or water carry them and cause impact to the public. So here we have -- we have to separate the land-based transportation and the barging because they are significantly different in this context.

So when it comes to release risks on land, one of the fundamental assumptions in the RADTRAN calculations is that within 24 hours, we either clean up the spill or we will evacuate the public if it is necessary to do so to protect their health; whereas, on water, if we lose the load, if we lose some radioactive materials, it is not certain that we will be able to retrieve it and that is an analysis that we did for this one.

So let me talk about accidental releases on

land first. So for a truck, we have assumed that any accident results in a loss of containment. This is obviously quite conservative, but the packaging materials, the intermodal containers and the IP-1 bags that Trevor showed you don't have any performance requirements and we don't have any historical data for how well they survive traffic accidents. So it can be assumed that if a truck is involved in an accident with an intermodal container or an IP-1 bag, then there will be loss of containment, but for the Class B and C cask, that cask is more robust. You saw what it looks like. It has the transportation overpack and that we have assumed will lose containment only for severe accidents. All this work is based on other work done by the NRC and UREG 2125. The probability of a loss of containment is just over one percent.

And then we also looked at loss of shielding accidents for the Class B and C and this was a question asked earlier. There is lead shielding in the Class B/C casks. So it is possible that the cask survives and does not dispose the contents, but the lead shielding inside is damaged and so the radiation level rises above the regulated maximum. That has also been considered.

Next slide, please. The discussion for rail is similar, except that for the flatbed railcars where we

have intermodal containers, again we assume that every accident results in a loss of containment, but for the bags being carried in the gondola cars, we have assumed that unless there is a derailment, loss of containment is not possible. So only derailment accidents result in a loss of containment and the probability for that is about three quarters. For the Class B/C casks, the same as for truck. We have a high severity in accidents that could cause loss of containment, loss of shielding and that work all comes from UREG 2125.

Next slide, please. So the calculations per accidental release risks on land were all done with RADTRAN. RADTRAN is able to calculate atmospheric dispersion and then human health effects from five pathways, which are inhalation, cloud shine, resuspension, ground shine and ingestion. They use a national average class and wind speed and, also, they define hypothetical maximally exposed individual as someone standing about 120 feet from the package. RADTRAN also produces collective dose risk, which is dose multiplied by the probability of the event.

Next slide, please. So the risks due to accidental releases of radioactive wastes to the maximally exposed individual are shown here and they are, except for the B and C, for the Class A and the

LARW, we are talking about small fractions of a millirem and I pointed out before that one millirem is a day's worth of natural background radiation. If you then end up multiplying the collective dose risk with the probability, which happens to be low for these events, the collective dose risks are very, very low and we do not -- we have not done any comparisons because they're negligible in comparison with the conventional transportation risks and the incident-free transportation risks.

Next slide, please. Okay. So now we've come to the more difficult part, which is what happens if there's an accident on a barge and we lose the containers of the barge into the water. The first thing we have to do was model the chances of being able to retrieve the package and this work was done with interviews with multiple salvage experts and redeveloped entries which can be used to estimate the probability for retrieving the package and this depends on the type of packaging and the water depth.

For the dispersion modeling, again, there is not a whole lot of background work being done in terms of aqueous dispersion of wastes or even spent fuel, but we do have conservative models that were developed by the International Atomic Energy Agency to guide the

intentional disposal of radioactive materials on the continental shelf. So these methods are intentionally conservative and, for example, for the LARW and Class A, they recommend that we assume that all of the materials have dispersed within one year. For Class B and C casks, we have assumed a leak crate that comes from the design in the safety accident reports for those casks for the hypothetical accident conditions.

Next slide, please. So the results of this. For the coastal routes, the dose to the maximally exposed individual depends on distance from the shore and depth of water, and for the majority of the route, these are very, very small values. Even close to the coast, these are much smaller than background radiation levels. On the Columbia River, on the other hand, if we assume high source strengths, then the maximally exposed individual dose exceeds the limit for public exposure, but is still less than the background radiation.

Next, please. So this is now a recap of pretty much all that I have told you this far. We have looked at three kinds of health risks. First we will talk about the one that cannot be avoided. This is the incident-free radiological risks. These are the intermediate risks. The doses to the maximally exposed individual are low. Collective risks to the public are

also low. The southern route is better than the northern route, but not by much, and the barging is the lowest if you count both public and crew risks.

Next slide, please. The second one is the conventional transportation risks and this is the dominant risk; however, there's always a possibility -- there's a small probability that we do not have any fatalities even through the whole campaign and, again, for this, the southern route has lower risks, but the absolute difference is not large in comparison with the overall risks. The risks are lowest for barging, but, again, for barging, if we have to pick and choose, the maximum bang for the buck comes from barging the LARW. There is significant risk benefit to repurposing the breakwater, and the last bullet we will talk about in September.

The next thing is the radiological risks from accidental releases and loss of containment and shielding and this is the lowest level of risk. The dose to the individual is low, the collective doses are low and we have actually not done a comparative because comparing small numbers is not meaningful.

Next slide, please. So the recommendations for risk mitigation, I will talk about the first two. Again, repurposing the breakwater gives us a benefit and

barging wastes gives us a benefit, and if we are unable to barge everything, then barging LARW gives us the maximum benefit, and the last bullet, I will talk about in September.

Next, please. So those are the study details and results. Here is -- here are things that we need to know and we need to take note of. We don't know the source strengths, we don't know the compositions. We have made conservative assumptions. We believe our comparative analysis is robust, but a lot of this work will need to be looked at again after site transition. We have not looked at the storage handling, loading and unloading risks and these need to be looked at later. There are a couple of materials I told you that are direct-trucked. If we barge those same materials, then we are not doing an apples to apples comparison because when you barge, you necessarily have an intermediate stop. We have obviously assumed a certain configuration of the trains in terms of number of packages per railcar and number of railcars per train and should that not be the case, the results will be different.

Next slide, please. So there are some recommendations in the report for the barge transportation option. One is there are pinger detectors for the casks that will improve retrievability

because they would make location easier. The transportation on a barge in IP-1 bags of the Columbia River is a little bit iffy and something should be done to mitigate the risks of that.

And the other part, which I didn't mention before at all, is when we barge radioactive materials, for the accidental cases, we're actually transferring some risk from human beings to the environment and, also, all of our calculations depend on the routes we have selected, and if these routes turn out to be different from the ones we have selected based on local agency requirements and requests, then the risks will be different from what we've calculated. I think that should be it.

MR. ANDERS: Thank you very much. Very comprehensive study.

Before we open it up for questions, we want to hear from Kara Woodruff. As I mentioned earlier, the panel, after reviewing the report, put together their observations and conclusions and also presented some information in a way that they -- the issues and topics that they felt were important to the community and the community would like to hear about and know.

So, Kara, would you share with us the overview of the panel's review?

MS. WOODRUFF: Sure. Thank you, Chuck, and thank you, Dr. Roy and Dr. Garrick.

I just want to back up a little bit and remind everybody that the power plant at Diablo Canyon will be closing in about five years. So these issues are very real.

We know from discussions tonight that the decommissioning is involved in shutting down and demolition of many, many structures and facilities on the site, and as we learned from today, as much as 1.7 billion tons of material being removed from the site and we expect those materials decommissioning will have to be transported away from the site. There's been discussion of perhaps repurposing of the facility's structures. So maybe it won't be the entire billion tons, but in any event, we're talking about a lot of material and we estimate that as many as 35,000 truckloads or 70,000 roundtrips could be leaving Diablo Canyon and driving through communities over many years, perhaps even decades. It's a pretty big project. Obviously, that can result in impacts to neighboring communities, including degradation of air quality and many produce traffic and noise, as well.

Next slide. The second slide. Next slide.

MR. ANDERS: Kara, what slide are you on?

MS. WOODRUFF: I think we're on -- it's 58.

So because we have these concerns about the impacts to the local community, the panel requested that PG&E consider alternative transportation routes and methods, including track rail and barge, which have been considered. As we said before, in 2018 NDCTP, there was no mention of the barge option and it looks like the next submittal is barge.

In responsive to the requests by the panel, PG&E collaborated with the John Garrick Institute, what you heard tonight, took analysis of risks associated with trucking the demolition materials versus rail and barging. They completed the report and discussed it today and they offered it to the panel to take a look at. We call it the UCLA transportation risk analysis and the report is very thorough. It's a lot of information and the audience is really intended for pretty sophisticated readers, PG&E engineers, physicists, regulators perhaps, but we feel as a panel we needed to create an executive summary to facilitate a public discussion of these critical issues involving transportation of materials.

As you called it earlier, Chuck, it's kind of like CliffsNotes, but the problem with CliffNotes, any English teacher would never want her students to read it

because it doesn't do justice to the real novel and I think that's certainly the case here, and listening to the presentation tonight, there's a lot of subtleties in the Garrick report that are not reflected in this panel report. So if you really want to know the study, then read the study itself. If you just want a quick understanding of some of the major components, then I encourage you to look at the panel report, but the real information is contained in the Garrick report. So if there's any differences between the Garrick report and the panel report, please refer to the Garrick report. Incidentally, both reports are available online at DiabloCanyonPanel.org.

So UCLA transportation risk analysis considered essentially three alternative methods to remove the radioactive materials from the Diablo plant to the final destination. And as a side note, as Trevor discussed, the final destination depends on the nature of the materials being removed. The final destinations include sites in Arizona, Utah, Nevada, Idaho and/or Texas and you'll see that California is not on that list. None of these materials will end up in this state.

So the first alternative was the southern truck route. So the next slide. One more. There we go. So this is the first alternative, the southern truck route,

and the idea is that trucks would remove materials from the plant, drive to the south through Avila Beach to the Pismo Beach rail yard and then further transportation by rail back to the final destination. That's alternative one.

Next slide. Alternative two is the northern truck route. In this case, the truck would move materials from the plant, it would go through the north land to the Diablo Canyon lands through Montana de Oro State Park and then Los Osos, all the way down to the Pismo Beach rail yard again for further transportation by rail or truck to the final destination.

Next slide. And then the third is this barge route. It would be a consideration. So this route would barge materials from the coastline adjacent to the plant site and either be barged to Long Beach, California or Boardman, Oregon, which is on the Columbia River, and then at that point, it would be moved by rail or truck to the final destination.

Next slide. The Garrick Institute study also looked at the breakwater. They considered the risk associated with removing the breakwater versus leaving it in place. Maybe it's repurposed, maybe it's not, but it's either keep it or leave it, and incidentally, as we saw on Trevor's slide, of that 1.7 million dollars of

decommissioned debris, 700,000 million tons are just the breakwater alone. It's a huge project to decommission.

Next slide. So some of this slide was already discussed by Dr. Roy, but just to summarize, the analysis looked at conventional transportation risks and that's just an accident like a train running into a car, et cetera, injuries, fatalities, and they also considered risks related to radiological releases for non-incident and accidental releases.

Next slide. Here is a very broad-brush stroke of the conclusions of the UCLA study. So number one, on the basis of conventional transportation risks, barging has the lowest risk compared to trucking and rail transport. Number two, on the basis of conventional transportation risks, including travel distance, the southern truck route through Avila Beach has lower risk than the northern truck route, which will go through Montana de Oro; although, the difference in those two routes is pretty small.

Next slide. The third conclusion on the basis of conventional transportation risks, real transport is less risky than trucking and then it describes a little bit rail transport fatality risks are higher, but a train can carry 150 to 180 times the material of a truck. So there are fewer miles traveled and therefore

less risks.

Number four, on the basis of human health and safety risks from potential radioactive releases, transportation on land and in coastal waters was deemed to be so low as to be inconsequential in the selection of one transportation option over another.

Next slide. I think this number five is pretty interesting. Leaving the breakwater in place, which reduces the amount of waste by about half, results in almost a 50 percent decrease in risk, and then, finally, the combination of using barge transport for the first leg of the route and keeping the breakwater lowers the fatality risks by more than 40 percent with the corresponding reduction in injury risk by 32 percent lower and the accident risk over 9 percent lower.

So I think that in some ways if I were to summarize conclusions, the big surprise that came out of this study, number one, is that barging is an interesting option that probably hadn't been considered before. It does have some advantages in terms of lower risks and efficiencies. Number two, leaving the breakwater in place does result in significantly decreased risks, and then if you combine barging and leaving breakwater, you have further risk reductions. I think those are all pretty interesting things we hadn't

heard about before.

Next slide. So a lot of the limitations were already discussed by Dr. Roy and we just mentioned it here, but I do think something to consider is although this risk analysis provides us with some conclusions, it's limited because obviously these decisions about how debris is moved from the plant are going to depend on costs. Should the ratepayers, taxpayers and maybe the shareholders will have an opinion about this and this study doesn't take into consideration the costs associated with the different options, and also in proceeding with decommissioning, obviously PG&E has to obtain permits from a whole host of state and federal and local agencies, and from those regulatory processes, impact reports, et cetera, are going to really aid in how options are selected. It's not just about risks, it's not just about costs, it's also what the regulators have to say. So this whole study is very interesting, but it's certainly not dispositive.

And then, finally, we didn't really talk too much in this report about spent nuclear fuel and storage and ultimate possible transportation, but we'll cover that next time.

And I think that concludes the panel summary, if anybody has any questions. Thank you.

MR. ANDERS: Thank you, Kara. Next slide, please. So now we have an opportunity for some questions from the panel, comments from the panel to either Dr. Garrick, Dr. Roy or Kara or the transportation committee who put the summary together for the panel. Any comments or questions? Yes, Lauren.

MR. BROWN: I have a couple of questions. There was quite a bit of attention paid to the risks in our immediate community doing truck transportation either through Avila or through Los Osos to the Pismo railway. Was there also attention paid to community risks at the end point, like barging going to Long Beach or Boardman, Oregon? That's another point where community exists and there could also be exposure to those communities.

Dr. Roy, did your study delve into that at all?

DR. ROY: Yes. All of the exposed populations, whether it be for incident-free radiation risks or accidental release risks, all of those are included. So there is a population -- so the information comes from the census data and the calculation is done for basically 800 meters on either side of the railroad or the road, the exposed populations, what is the impact on them is calculated. Of course, we don't break it out. That is all one big lump for all of the people. So the

only reason I've broken out this route segment between DCPP and Pismo Beach rail yard is that was one of the specific requirements for our study.

MR. BROWN: Okay. Thank you.

DR. GARRICK: Yeah. Let me elaborate on that a little bit because that question is really an important one when we start considering the handling activities because the handling activities at the end points and the starting points are a little different and they are in different locations with different population densities, different operations and so on and so forth.

So it is a relevant question that will become elevated in importance when we come to getting the procedures and the protocols for handling and take that into consideration. So it's a good question.

MR. BROWN: And then I have a second question. This is Lauren Brown, by the way. I forgot to mention that. This is a question for Tom. The route going through Los Osos depends on the improvements in the road going to the north of the plant. What's the status of that?

MR. JONES: The road -- I'll bifurcate your answer. The transportation route in this study when Dr. Roy talked about improvements, those improvements are far beyond the ones that are underway today. So

that would include road tightening in the state park and county alignments that are outside of PG&E's control. Those are up to the same standard as the southern route. That was his assumption. What we're doing right now is improving the access of PG&E-controlled property from the power plant north. So that is underway. We started work last week and we have -- we'll have pavement on percentage slopes greater than 11 percent and improved road in width. There are some areas as a condition of that permit than a narrower than standard road will because of some sensitive sites adjacent to the alignment. So to avoid those impacts, we worked with the county planning department, community stakeholders and Cal Fire, slash, San Luis County Fire to make sure it's functional for emergency ingress and egress, but it does not fall below the standard.

MR. BROWN: Okay. Thanks.

MR. ANDERS: Thank you. Sherri, did you have a comment or question?

MS. DANOFF: Yes, I do; although, I think it could wait until after the presentation by the local state agencies. So thank you.

MR. ANDERS: Any other questions. Go ahead.

DR. O'MALLEY: Dr. Nancy O'Malley here. Thank you for your presentation.

Some conclusions I see is there's more and more evidence for retaining the breakwater, 28 percent decrease in fatality and half the tonnage. So one half less tonnage to transport, that, to me, is very significant. So I think the study is very helpful and consolidating our thoughts on retaining the breakwater.

And then barging, so it sounds like one truck is equivalent -- or 200 trucks is equivalent of one barge, but you mentioned you had to use more modeling with barging, that there isn't quite as much data there and as much experience with barging and it looks like the safety information you used -- or the data you used was from 1994 to 2000, but is the barging actually becoming more safe in that so it may actually be better than this and is the technology improving? I know we talked about that a little bit.

DR. ROY: This is Chandra Roy. So the barging industry has made tremendous improvements in its fatality record of late and it's kind of sad that I wasn't able to use more recent data and that is for consistency with other data that I was using in the analysis, so on and so forth. If you asked only about the fatality risks or conventional transportation risks, I could use more recent data and that would actually show that barging is even better than what it was showed

to be.

DR. O'MALLEY: Okay. Even better.

DR. ROY: The modeling that we had to do was for dispersion in water and so on and so forth, that has not been extensively studied in the past.

DR. O'MALLEY: Okay. And if we weren't able to barge everything and we were just able to do some limited barging maybe because of costs, we don't know what the costs are, you recommended that we barge just the LARW, that that would have the largest benefits, but, yet, you also mentioned that there's also more risk to mitigate there because you're using a river? Can you touch on that? I wasn't really clear on...

DR. ROY: Several things we can do and we have not compared them. So I cannot tell you how that would alter -- how much risk benefit would go away. So one possibility is just go up the coastal route to Oregon and then truck it from there instead of barging up the Columbia River. It's the river transportation that is bothering us because the river is like a piece of pie. Once you drop a radioactive load in the river, everybody downstream of that point is affected, which is not the case with the coastal waters.

DR. O'MALLEY: Okay.

DR. ROY: So we are recommending several

things. One is just go up to Oregon and then truck it from there, use more robust packaging because we assume that we are going to be using these IP-1 bags and we are assuming that the IP-1 bag dropped in the water is not going to survive, and so if we are able to change those assumptions because we are using better packaging, then those risks will go down tremendously.

DR. O'MALLEY: Okay.

DR. GARRICK. I'd like to make a comment on the experience issue again. There is quite a bit of experience with barge. Part of our issue here is where the experience is particularly lacking in doing the kind of analysis we're talking about here; namely, quantitative risk analyses or probabilistic risk analysis. There's been very little of that type of analysis performed on barge transportation; whereas, for all the other transportation modes, there's been considerably more.

So the experience factor relates not only to the actual experience of barge operations, but the experience and methodology for assessing such risks. They are considerably behind the curve with respect to barge mode over the other modes of rail and truck, but that can be overcome pretty easily. It's not a factor that can't be dealt with in a more rigorous way.

MR. ANDERS: Okay. Just a quick question before Sherri has another question, but I want to check in with our online panelists.

Dena, Linda, David and Scott, do you have any questions?

MS. BELLMAN: I do.

MS. SEELEY: And I do, too. You go first, though, Dena.

MR. ANDERS: Okay. Dena and then Linda.

MS. BELLMAN: Okay. So first I want to say to the folks at the Garrick Institute, thank you so much for this presentation. I really appreciated the nuanced way that you delivered a lot of the information and your understanding and qualification of the assumptions. I think that's all really relevant to us and I look forward to you guys being a part of the future as we learn more and develop more of this. So I'm glad you're going to be with us in September, as well. So thank you.

And also to our -- the panel transportation subcommittee, you guys did so much work and I'm so thankful that, you know, everything you delivered was really well-informed and thank you for doing that.

I think my question really has to do with the northern route and Montana de Oro. I know, that's a

surprise, but I just want to make sure we're -- at some point, whether the county will probably discuss it or if PG&E's going to touch on it. We have not only impacts to the people and the risk to people, but improving that road to the extent that would be needed is a major undertaking for sure and it really is not in a state where it could handle this at this point. So I think there are a lot of environmental impacts that people will be concerned about as we look at potentially improving that road for this possibility and so I think that will be something that the public and I know myself are very interested in if we're doing any analysis on those potential impacts for those improvements to really use that as a qualified potential route. That was my biggest question. We may be able to dig into that later.

DR. ROY: This is Chandra. I don't have an answer for your question. It's something we haven't looked at. It's something that doesn't fit in our framework because we're looking at fatalities only. So the environmental impacts we're not going to find in this study. So it is outside what we have considered to be the scope of this study to this point.

MS. BELLMAN: Right. I understand that. It wasn't specifically directed at you, but I'm kind of

hoping the county and/or PG&E will touch on that as we go into the next steps. Thank you.

MR. ANDERS: We've got a couple responses. Sherri and then Tom.

MS. DANOFF: I have a comment for Dena, that I hope you'll stick around because after the presentations by the local state agencies, I'd like to ask you about permitting that would be required to use Montana de Oro.

MS. BELLMAN: Sure.

MS. DANOFF: Okay. Thank you.

MR. ANDERS: Tom, you had a comment.

MR. JONES: Yeah. It's my understanding that the transportation routes, and I think Mr. Keith will speak to this more expansively when we capture the alternative analysis in the environmental impact report, the impacts to that roadway would also be considered in our project to bring it up to standard when we look at that from the financial impacts, as well, and those would be quite considerable and it requires a fair amount of work.

The last point is, I think we will speak to this later, the roadway is mostly owned by the county and a segment by parks and it's subject to a right of entry permit with State Parks and then the county would have its own.

MR. ANDERS: Thank you. Thank you, Dena.

Next question is -- all right. Next, Linda, you had a question.

MS. SEELEY: Yeah. Mine was similar to Dena's, except I wanted to see if you thought of kind of splitting it up. Instead of doing all barge, all southern route, all northern route, to do some of -- you know, to do it in three different ways, but it feels like the northern road is -- would be very problematic, it really does, but say splitting up between barging and trucking and analyzing that.

MR. ANDERS: Thank you. Sherri, you said you had a comment.

MS. DANOFF: No. That's it.

MR. ANDERS: David. David, go ahead.

MR. BALDWIN: I wanted to echo Dena Bellman's comments about the report. Yeah, it's really fascinating to hear it all put together and it's really well-done. I appreciate the work that was put into it.

I have to mention that I'm actually sitting here on the south shore of the Columbia River in Oregon right now. So it's funny to hear it discussed while I'm looking out the window at the water.

My question was just, Tom, you kind of touched on the financial impacts of the northern route, which

that makes sense to me that that would be a big undertaking. I'm not sure how that would make sense or why it would, but I was more interested also in have you looked at the costs or -- there seems to be from the report some benefits presented by barging. So do you think -- do you know yet? Do you have any preliminary, I guess, analysis of barging and if that will be problematic from a cost standpoint?

MR. JONES: We're running those numbers. We're about to enter into contract for that analysis with some subject matter experts on barging. That contract isn't executed yet. So it's not public at this time. I'll update the panel about who that is in short order, but, yes, that's part of the scope of additional barging analysis between now and the 2021 NDCTP.

MR. ANDERS: Nancy, and then we need to take a quick break.

DR. O'MALLEY: Dr. O'Malley here. So you just talked about the trade-off between human risks and the environmental risks at the end of your report. Do you have any recommendations there of who should do that type of analysis, that type of a risk assessment, and will that be part, Tom, of your upcoming research that you're doing or do you have any recommendations on how that type of analysis can be done?

DR. ROY: Is that a question for Tom?

DR. O'MALLEY: I want to hear Tom's comments on if they're already going to address that issue, but also in terms of risk assessment, is that a type of risk assessment that your team could do?

DR. ROY: There are methods to assess the risks to the flora and the fauna in the oceans, et cetera, from dumping and dropping radioactive materials in the water. How to compare that to human life is a more difficult thing and I have been told that perhaps PG&E has some internal metrics on those. I am not aware of any public metrics on how to compare human life versus impact on flora and fauna.

DR. GARRICK: Just to add to it a little bit, in general, the answer to that is yes. The same methods are employed. We have, for example, done oil spill studies in the Alaskan area -- Alaska area and we rode the route of the Prince William Sound event of many years ago and so it's structured a little different, but it involves the same kind of exercises of processing the information and answering the three fundamental questions of risk, what can go wrong, how likely is it and what are the consequences.

So the answer is it's another risk measure, it's another way to measure risk, but you can do it and

environmental impact is in many cases not as well developed in terms of what represents the details of the consequences, but it is possible to apply the same systematic quantitative approaches and probabilistic approaches to environmental impact as it is to human impact.

MR. ANDERS: Great. Thank you.

Scott, I was going to ask you. You were waiving. So do you have a question?

MR. LATHROP: Yes. Just listening to the report is all great, a lot more information as far as the different processes and methods, but right now what I'm thinking about is that it seems to me that currently right now there really is only one infrastructure in place to handle the transportation. There needs to be a structure. So mine kind of piggybacks a little bit about the north direction or even barging. It seems like those methods would require additional infrastructure, which, of course, costs, but would also have impact on the local community or the environment or something of that nature.

So just for clarification, right now, isn't it the case we only really have one infrastructure in place, meaning, really, we only have one option right now; is that correct? Maybe that question's for PG&E.

MR. JONES: Scott, I agree with your assessment. I would say we have 1.5 infrastructure in place. We already have the breakwater in the harbor, port and marina and we've done some barging, typically receiving. So we have about half if you think about square footage and impacts of what we need to execute that and we have the most robust structure in terms of the breakwater to provide a shelter to the barging. We're assessing what those other infrastructure components will be right now. We don't know if it's an entirely new structure or some repurposing of the intake. That's what the engineering team will look at in association with the barging.

MR. LATHROP: In reference to the barging concept, how about at the other end with the ports that they're going to? Are they already set up to receive something like this?

MR. JONES: Those ports are major industrial ports that receive thousands of shipments a day.

MR. LATHROP: It wouldn't be a problem for them, even though it may be a radioactive type of low, you know, waste, meaning they wouldn't have any special requirements or something?

MR. KEITH: That would be up to the local jurisdiction as part of the permitting process.

MR. LATHROP: Okay. Thank you.

MR. ANDERS: Thank you, Scott. Let's move to our break. Before we do, I'd like to acknowledge that Nicole Nix from Supervisor Hill's office is participating online tonight. Thank you for your attending and participating.

Also, I want to let everybody know that the presentation slides that we're seeing tonight will be hosted on the panel's website tomorrow and you can view and/or download those slides if you want to look at them in more detail.

So let's go ahead and take a 10-minute break. We're running a little bit behind, but we'll come back and start the meeting again at five minutes to 8 and proceed at that time. So we're going to take a 10-minute break and we'll see you in ten minutes. Thank you.

(Recess.)

MR. ANDERS: All right. We are back and I think the next portion of the meeting is going to be very informative. We're going to have the opportunity to hear from SLO County Planning, SLO County Public Works, Caltrans and CHP with regard to their concerns, implications and guidance on transporting hazardous materials -- not hazardous materials, but

decommissioning materials and our first speaker is Trevor Keith. Trevor is a member of the panel. Previously, he was an individual member and now he represents SLO County as an ad hoc member. Trevor is director of planning for SLO County and Trevor and John Waddell, who is deputy director of public works, will provide some information from the county's perspective.

So, Trevor, I'll turn it over to you.

MR. LLOYD: Thanks, Chuck. I'd like to make a comment real quick. I'm looking for John. I'm not seeing him in the list.

MR. KEITH: No. He's with me.

MR. LLOYD: Okay.

MR. ANDERS: All right. Go ahead, Trevor.

MR. KEITH: We are socially distancing in my office at the county this evening. Good to see everybody virtually on the panel and our other guest speakers. Hope everybody is doing well.

Tonight we wanted to walk you through kind of from our perspective some kind of the mitigations specific to transportation tonight, kind of go through mitigation and then I'll run through some environmental impacts, some local projects and share with you some specific mitigation that was based on different types of truck trips on a couple projects and I'll turn it over

to John at that point and he'll cover, kind of, some of the local transportation issues specific to Avila and around that area. So I'll kind of cover part one there and John will take you through part two.

If I could get the next slide, please. Great. So I'll walk you through, again, kind of, mitigation through the CEQA process specifically toward transportation and then delve into some examples of transportation, kind of, truck trips on different projects and then example mitigation.

So just, again, I think you've seen this before, but I just wanted to reiterate it for the panel, as well as the public, just when we look at all the environmental issues, when we do the environmental review process, these are the issues that we look at when we delve into the different issue areas, and as you can see, transportation on the upper right-hand side is the one that we're going to focus in on tonight.

Under the statute, the state statute for CEQA mitigation, we're really looking to avoid the impact all together. So, again, looking at transportation, kind of the optic of whether it's truck trips, whether it's the construction folks that are coming out for the demolition, that sort of thing, we're looking at, kind of, that via transportation. So we're mostly trying to

avoid impact all together, how can we limit the impact, and then it's minimizing the impact by limiting the magnitude. So how can we, kind of, lessen that and that's where looking at mitigation, how to kind of offset it, and then you're looking at, kind of, the rectifying by repairing, rehabilitating or restoring. So if something goes away, how can you bring it back, and then reducing or eliminating over time, there's kind of a ramp up, as you're going to see potentially with the decommission and taking stuff apart, and then how does it get eliminated over time. So maybe there will be a partial impact, you know, kind of, going in, but then over an amount of time, it will drop away.

And then, again, looking at replacing or providing substitute resources. So with transportation, a little bit less so for that. This is more along, kind of, the biology, hydrology, some of the other ology issue areas that we'll be looking at, but, again, in other words, you know, we're -- we'll look at mitigations that we can apply to the point where there's clearly no significant impact would apply from implementation of the project, so looking at decommission, what we can do as we look at all these issue areas.

Can you jump to the next slide, please? So a

couple other things. It's got to be feasible. You know, so, again, kind of getting -- I'm going to jump down to the bottom one. It's got to have a nexus, it's got to show -- you know, there's got to be impact connected to, you know, what the mitigation is. So, you know, if we're increasing truck trips, we can't say, okay, you're increasing truck trips through Avila, well, we want a big park in Avila. So that's the mitigation. So there's no nexus from the impact to that. So you've got to think about mitigation, that it's got to have the essential nexus, you know, the impact and then the mitigation will then reduce that impact.

And then on the bottom, the rough proportionality, again, if there's ten truck trips, you can't say, well, we need three new stoplights and we need to make, you know, the main drive -- we need a four-lane main drive. So, again, you've got to look at the impact to, you know, kind of, the -- it's got to stay within proportion to reduce that impact and not build on it a lot more.

Then jumping up -- back up, so proposed by the project or recommended by the EIR, so PG&E can also propose, you know, kind of, mitigation on their impacts as well, and then when we go through our environmental impact analysis, we will also be looking at mitigation

measures, you know, referring to impact area.

And then considering significant effects of mitigation measures, so sometimes there's mitigation measures that will create additional impacts. So we've got to kind of look at what we're proposing and if they kind of have secondary impacts, as well. So we'll be looking at that as we do our environmental review.

And then lastly on this slide, they need to be fully enforceable. So we've got to make sure that it's something that as the county is the lead CEQA agency, that we're able to enforce as the project moves forward through its life cycle. So that's kind of a little more context to mitigation measures for you guys.

So the next slide. Back to being feasible. So I think this is, again, kind of straight from the statute, but it's got to be accomplished in a successful manner, you know, in a reasonable amount of time taking into account economic, environmental, legal, social and technological factors.

So I think a lot of times there's, you know, new technology out there that folks would like to see that could solve a lot of problems, but if it's not something that's tried and true that we can point to success somewhere else, it's really hard to use that as mitigation and I think it also needs, you know, kind of

an economic, environmental, legal. So kind of boxing that in, those are kind of the bumpers as we look for mitigation measures to be feasible. We kind of have to take all those things into account.

All right. Next slide, please. So with one of the local projects years ago, the Unocal Avila Beach Clean-Up Project, so that project and the transportation section was estimated at 15 vehicle trips along Avila Beach Drive during the peak hours of the day. So that analysis, what they came to, the pulling some of the mitigation measures out for you guys to just kind of get a feel of what's been done historically is they restricted project traffic to certain hours to try to limit, kind of, their impacts on what we call, kind of, the peak flow of the traffic per day. So there were specific times that they could do their vehicle trips. They had to prepare a traffic control plan. So, really, it kind of showed how they would, you know, kind of control the flow, you know, kind of expedite the truck trips through, you know, show how they'll deal with pedestrian and cycle traffic. So they had to come up with, kind of, for the whole of the project, the whole time this was going on, how they would help, kind of, again, get the cars through, not create issues in the town and then, you know, not impact all the vehicles and

pedestrian traffic going through.

The next slide, please. So some more on this. Again, they allowed partial road closures through the months of October and through February so that they could kind of box in an area where a lot of the work was going on due to, kind of, transportation, as well as safety. So a little overlap there.

And then additional parking. So they lost some parking with the closures of some of the streets. The applicant needed to come up with additional parking to offset so there would be no net loss of parking in the town.

So advanced coordination with emergency response providers. So keeping in touch with, again, kind of, Cal Fire, you know, the ambulance folks, making sure that everybody knew which streets were, you know, closed at what time so if there was an emergency, they could get in and they wouldn't be delayed by construction or roads closed. And then alternative pedestrian routes, again, making sure folks can get around safe when this is going on, and then, finally, in this one, they had a roadway plan, again, truck trips and construction, making sure that they can come back in and they put it back to the way it was. So those are kind of, you know, the truck and the mitigation examples

out of this EIR specific to the Unocal Avila Beach clean-up.

So if we can go on to the next slide, please. All right. So the next one that we pulled from was Topaz Solar Farm. Just a way of context, if you go up 101 and then you take 58 and head east out towards the Carrisa, it is up on the top. So in the county, there were two large solar projects that were put in out there, Topaz being one and then the California Valley Solar Project was the other, but we just pulled some out of the Topaz Solar Farm. Again, a little more context for you guys, just where it is, 58 being the main road out there and access points going east and west.

So next slide, please. Within this one, they analyzed three different trip routes and to try to see the best flow of how to get -- so this project, large solar facility. So they have to do kind of some prep work out on the sites and grading, kind of getting everything, you know, buttoned up and then it was construction, literally laying down thousands of solar panels with boxes hooking into the mainline there for energy generation and so just looking at the different truck trips, how to get them in and out and then all the workers that would go out there each day to work, as well. So they had an estimate of 810 truck trips on

Highway 46 east and an increase of 709 truck trips on Highway 46 West. So least amount of truck trips each day. So, again, some example mitigation measures pulled out. So a lot of these you're going to see a trend here. Traffic control plan again, so making sure, again, how they alert folks that aren't aware that construction's going on, so if they have to, again, close roads for a little while or slow things down, that people are aware ahead of time and how to get, again, vehicular and pedestrian traffic along each route there.

So next slide, please. And so they had submittal of a truck and bus safety plan. So they actually bussed a lot of their workers out there so there wasn't, kind of, a single occupancy vehicle going out. They were trying to cut down on the amount of trips back and forth out to the project site each day and then they prohibited use of truck trips for certain days to not interfere with some of the events going on out there. There's the Wildflower Triathlon, used part of that 58, closed it for that day and I think there were a couple other events that they shut down any construction on that day. They did a really robust outreach campaign to notify the public of the potential delays going on out there and then, again, kind of seeing the consistency here, they had a roadway prepare

plan they put together to make sure they put Highway 58 back to the way it was found before they began.

So then the next is the Hanson aggregate quarry expansion project, EIR, a little bit closer in here to town. So it kind of heads out. So there's a couple routes on this, as well, that they could take. So they were just -- it's a quarry and they just wanted to expand. So increasing -- looking at increasing the daily truck trips. So kind of pulling it out and getting over to US-101 and kind of allocating where they needed to go from there.

So next slide, please. So this one, the existing -- so an expansion project, they've already been approved for a certain amount of truck trips. So in this one, they've already been approved for 294 as a maximum truck trips per day. So this was looking at an existing 89 round-trip truck trips per day. So what they came up with looking at kind of example mitigation measures for you guys, so they contribute toward a traffic safety kind of hazards in the community of Santa Margarita. That was a little south of the quarry there and some of the trips do come through town there. So looking at how to make it a little safer on the downtown there, they had to put in a fair share of contribution for crosswalk improvements and some of the roads there

in Santa Margarita and then they had, again, a roadway prepare plan that they would continue to kind of chip in to make sure any impacts based on the trucks to the road would be mitigated through that.

Then the next slide. So I'm all the done, but I'm here for questions, but I'll turn it over now to John Waddell and he'll kind of delve into the local transportation issues for you guys.

MR. WADDELL: Okay. Good evening. Thanks for having us. So I'm just going to kind of hit some of the transportation issues at a high level here just as they apply mostly to Avila Beach. So if we can have the next slide.

So looking at the different routes that are analyzed in the safety analysis, southern route through Port San Luis in Avila Beach, some of the issues to consider is just that it is sole access for the community and the benefits, it will increase traffic or accidents along the route. That area already does have some traffic capacity deficiencies. So we want to extend the project, exacerbate that congestion, and then, also, there's homes, recreation areas, parks, beaches and commercial areas along that route. So really then looking at noise, traffic safety and air quality related to that. The northern route through

Montana de Oro and Los Osos in addition to some of the southern route issues, there's also other jurisdictions that will need to be evaluated going through State Parks and that route ends by going through the City of San Luis Obispo and that trucking route actually is adjacent to more homes, also schools and additional commercial areas along that route. There's several schools along the route. One question, too, is the routing, is if that northern route is used especially, will it be for two-way traffic or some type of one-way flow from the northern to southern or vice versa.

So next slide, please. Some of the CEQA issues that are transportation-related, the real primary and secondary CEQA impacts that are evaluated are vehicle miles traveled and then safety are the primary factors and then the secondary impacts of noise and air quality really come into play with just all the communities and residences and other sensitive receptors along the routes, the non-CEQA community consideration and one that actually used to be a CEQA factor is level of service and that is a measurement of -- for roadways, is the flow the traffic and heavy impeded flow of traffic and the level of slowing and delays for motoring public. So it's no longer a CEQA standard, but it is still an important transportation impact consideration for

communities and for our communities and particularly Avila Beach and San Luis Bay Area, there is a county policy for level of service.

Go to the next slide. There's a couple standards here. The level of Services A through F and where the standard is that for Avila Beach Drive in the area between Avila Beach and, really, San Luis Bay Drive especially is that the level of service is not subject to levels exceeding or is worse than Level C overall. In addition, this proposed -- what's listed as proposed San Luis Bay update was adopted. Roadways in intersections maintain a Level Service D standard during the weekend peak hours and meets what's called a K100 metric. K100 is the 100th -- if you look at all the hours -- if you break all the traffic into hours, it would be the hundredth worst hour would be the K100 metric. So there's a lot of data and analysis behind all these, but that's just proposed standards and Avila Beach Drive and its intersections currently in many areas are at Level C and some at Level D. So they already have capacity for standards, so looking at what trucking or worker trips to Diablo Canyon would do to those levels.

The next couple slides are some graphs. I don't expect you to really follow all the different

colors and lines. Key point here is that's an annual basis January to December and in the middle it's much higher as the summer months and the traffic volumes in the summer months are 50 percent or more than they are in the winter months and so there's a seasonality with traffic volumes in Avila Beach because of the tourists and beach impacts.

Next slide, also kind of a complicated slide here. Some of the key points, again, don't expect you to really get into it, but the weekday traffic, which is the lower blue and orange lines, really kind of climbs steadily through the day and goes up significantly after about 2 p.m. So you're going to have those daily kind of impacts and how that comes into play. The two higher bars are -- well, the highest bar is the average summer weekend. And so, you know, weekend traffic -- well, the green and the red, weekend traffic is significantly higher than weekdays and, again, looking at what type of impacts might be proposed on weekends, and just on weekdays, kind of like the prior slide, summer traffic is also higher on the weekdays than weekends. One of the interesting things, in morning traffic actually is consistent between summer and the average traffic flows.

These are types of data to estimate transportation impacts and recommended mitigations. We

have recent circulation studies and then, of course, more studies or updates of that data can be done and provide data for multiple locations along the route and multiple time frames to help inform decisions. That completes our presentation. We're happy to answer questions from the panel.

MR. ANDERS: I recommend that we hold the questions until after we hear from all the speakers from Caltrans and CHP and then have question-and-answer session for all those people.

MS. WOODRUFF: I have a question that really pertains to the county and their presentation. I'm hoping we can take some time to address these issues that the county raised now before we go on to Caltrans because they're different entities.

MR. ANDERS: Okay. Go ahead.

MS. WOODRUFF: I guess my comment is I really think the county is taking a very narrow view of mitigation in this case. When you decommission the plant, we're talking about as many as 70,000 round-trip trucks from the plant probably through Avila Beach and there's going to be significant impacts, air quality, noise that affect property values in Avila, certainly much increased traffic, and you didn't even mention coastal access. I don't know if people are going to

still be able to get to Port San Luis or the dog beach or Avila Beach during these years when these trucking activities occur, and I think when you look at the projects tonight that discuss mitigation, you were looking at much smaller projects in the county that just involve the narrow question of trucking when we have some mitigation examples on Diablo Canyon itself which resulted in much more significant mitigation measures.

So I'm going to challenge the county to think bigger and more in line with the history of the Diablo Canyon Power Plant. So, for example, when the dry cask storage was developed, we called ISFSI mitigation for that, we had coastal development permit at Point Buchon Trail. When PG&E built the simulator building, mitigation for that, Pecho Coast Trail, and when they replaced the steam generator, of course, PG&E is required to do a number of things, including set aside 1,200 acres at Point San Luis.

So I don't think the appropriate mitigation for all of this is a couple of extra stop signs or managing the traffic at lower density hours of the day or simple other measures. I think we really need to look at how is this impacting the locals of Avila Beach and how is this impacting coastal access and I think we want to look to Diablo Canyon precedence on this, not small

projects throughout the county.

I also want to mention that we got a comment from a participant asking about when the parties propose or who gets to propose or how to propose mitigation measures and I'm hoping the county can touch on that, when are those opportunities for the public to provide input on mitigation because I expect that the public is going to really look for much more significant mitigation measures associated with this and I think you'll hear that from the public, but it would be nice to hear from the county about when those opportunities might exist.

MR. KEITH: So I think opportunities for public input on the -- through the environmental review process will be -- there will be scoping and outreach meetings. So folks can voice their opinions there, and I think to the proposed mitigation, it would be when the draft environmental impact report goes out for public review. That's probably the critical time because then you'll see what mitigation measures are proposed and folks can respond to those. They can look at the impacts and see what mitigation measures have come forward in the draft environmental impact report and then it can continue through the different hearings that it goes through at the county, as well. Folks can come out there and

public comment, they can write in letters, they can continue to respond through the public hearing process.

MS. WOODRUFF: Okay. Thanks, Trevor. I think you're going to hear from the community. There has been so much history about protection of the Diablo Canyon lands and this is the time to do it and I think you're going to expect a lot of voices from the community who are going to argue for significant mitigation beyond what we were discussing tonight.

MR. KEITH: Yeah, and for sure, yeah, we welcome the input. Absolutely.

MS. WOODRUFF: Thank you.

MR. ANDERS: Thank you, Kara. Any other questions or comments for Trevor or John?

MS. SEELEY: This is Linda. I have questions for Trevor and John, both.

First of all, the number of truck trips involved in this project is way, way more. I didn't realize how many more it is than, say, the solar -- Topaz Solar Farm. It's, I don't know, hundreds of times greater and the impacts -- you didn't talk at all about the CO2 that's going to be put into the air, the carbon footprint of this whole project, and it seems that this is going to be very big not only from the truck trips coming out, but the workers going in, that needs to be

taken into consideration too when doing this and the Garrick study, I believe, said there were going to be five truck trips a day. Am I right, Dr. Garrick, about that, or Dr. Roy?

DR. ROY: So that's a slide from Trevor Rebel. It's a slide from Trevor Rebel and it shows in different tiers the different number of truck trips per day.

DR. O'MALLEY: It's actually 34 truck trips per day during the years 2032 to '35. That's the most concerning. That's 238 per week, which is the equivalent of one barge.

This is Nancy O'Malley here. So, you know, one of the mitigations through CEQA is to avoid impacts altogether. So if you compare and contrast here, 240 truck trips in a week to one barge, to me, it just seems like barging makes more sense.

Go ahead, Linda. Sorry.

MS. SEELEY: Yeah. Thank you for that, Nancy. I agree completely, but I just want to make sure that the county is really, really conscious of the carbon footprint of this project and the Avila Valley, John, you said that they already have transportation problems or, well, anybody knows that when you try to go to Avila in the summertime, it's kind of a -- you can't do it and the northern route that is postulated going straight

through Montana de Oro, it seems as though that the state would have to close Montana de Oro if they were actually going to try to take these big trucks out of Diablo Canyon and so that would be a huge impact to our public park infrastructure.

Anyway, I agree with Kara that the county is going to get a lot of feedback on this EIR and I think it's really imperative for our county to do an impeccable job on it and to really look at it in the big picture and what immense impacts this is going to have. I think this is the biggest project that's ever happened in our county, if I'm not mistaken. Anyway, thank you.

MR. KEITH: Just to let you know, Linda, in the environmental impact report, there will be a section on greenhouse gas emissions. So we'll do a full analysis of that for construction, transportation, it will take into account all the greenhouse gas emissions. So that will definitely be a piece of the environmental review.

MR. ANDERS: Thank you, Linda. Thank you, Trevor.

Any other comments, questions to Trevor or John? Sure.

MS. SEELEY: Just a quick comment. Trevor, I'm assuming there would be an alternative project looked at, which -- for transportation, which would be barging;

is that correct?

MR. KEITH: I think it's -- you know, I think that could be a valid assumption, but, again, once -- we haven't received the application from PG&E yet, we haven't started any analysis on any of this, but I think it's safe to say when we look at alternatives, especially for transportation, we would be looking most likely at a barge option for sure.

MS. SEELEY: Thank you.

MR. ANDERS: Last comment.

DR. O'MALLEY: Okay. Nancy O'Malley here.

Trevor, I'm concerned that if Avila Beach Drive is already a level of Service C and D and that's before the 242 trucks per week start passing through, I mean, what would be the mitigation options there? Would it just be maybe only trucking at night or what are the possibilities?

MR. KEITH: I think it's -- I don't know. I could ask John to chime in here a little bit. I think, yeah, we're rotating the -- I think for -- I think it's premature to say because, again, we don't have the application, we don't have all the data in front of us to do some analysis, but I'm going to tag John in here, see if he's got any thoughts.

MR. WADDELL: As Trevor said, we don't have the

application and we don't have the details of when they're going to be trucking and that's why I had those charts up of both seasonally and daily, weekly traffic levels. So, you know, it's not only -- it's not just the trucking, but it's the worker trips going into and out of the property.

And so looking at some of the other examples that Trevor showed -- shared like the solar farm requiring bussing for workers, requiring trucking in off-peak hours, those type of things, if necessary, would be some of the requirements and mitigations, but it's going to depend on what's proposed. As PG&E shared, you know, they gave average numbers rather than really, kind of, getting into the details of the project proposal of, you know, what would be those numbers -- I think average annual numbers, what would be those numbers on a more real-time basis within certain weeks or months and how does that (inaudible).

MR. ANDERS: Thank you.

Scott, did you want to say something or are you swatting flies?

MR. LATHROP: No, I have no questions.

MR. ANDERS: Linda, did you have one last question?

MS. SEELEY: One last thing. The more I hear

about this, the more I think about it. It occurs to me -- this is probably not something you want to hear, but I'm thinking, like, there is an option for SAFSTOR where we don't do anything except take out the radioactive, the core and the vessels, right, and then put everything else into sleep. I'm thinking maybe we ought to do that. We could still have the Diablo lands be open for use, 12,000 acres, and just cut out the 700 and some odd acres from Parcel P and let the radiation levels go down for 50 years and see what the world is like in 50 years after we're all long gone and let them take care of it.

MR. ANDERS: That's a good comment. We are running late on our agenda. So Kara.

MS. WOODRUFF: One procedural comment. I'm hearing feedback from people listening in. They're having a hard time understanding us, what we're saying with our masks on here. So I don't know what the solution is, but that's the feedback I'm getting.

And second thing I wanted to mention, what Linda is talking about is contrary to what our strategic vision says. That's a real big topic and maybe want to readdress it, but definitely suggest we want to move forward and not keep it for future generations on this decommissioning.

MS. SEELEY: I know.

MR. ANDERS: Okay. Thank you. Let's move on.

MR. KEITH: One last thing. Sorry, Peter. I just want to give the panel an update, as well. We are still in the recruitment process for a position in our department here in planning and building. That will be the project manager. We have a candidate. Hopefully there will be a relocation process. So we're trying to see if it will work out for him and us, but I'll keep the panel posted on if we have a successful recruitment this time around. So thank you. I will now pass it over.

MR. ANDERS: Thank you, Trevor.

Our next speakers are from Caltrans and CHP. Peter Hendrix.

MR. HENDRIX: Thank you, Chuck. I just wanted to say thank you Trevor and John for putting together that information.

What Caltrans does is we are basically a consulting agency to the county. So they are the lead agency in terms of doing the project and -- okay. Thanks, Chuck. We provide input and recommendations based on the studies provided to us. If we need additional information, we ask for that from the county and from the applicant, being PG&E. The areas that we

will be wanting to look at is what the impacts will be to Los Osos Valley Road if that is the route that is chosen. If the route that is chosen is Avila Beach, then we'll be looking at those interchanges for the operations and any kind of small to larger fixes that may be necessary to make that run smoother.

And so that's what we do at Caltrans, we recommend things to the county, we work with the county to come up with anything, and sometimes as a result of those recommendations, things come into my house, which is in traffic operations and encroachment permits. Sometimes they're larger. If it's a much larger ramp reconstruction project, that can get upwards to one to five million dollars. So we will see based on the data we receive, and as I'm hearing from the county, there's not even been a notice of project to them from PG&E. So we're kind of waiting to see what PG&E has in store for us and then we can take appropriate action.

MR. ANDERS: Great. Thank you. Let's hear from CHP, Sergeant Kevin Rose with the coastal -- CHP coastal division. Sergeant Rose is on the telephone.

So Sergeant Rose, are you there?

MR. ROSE: Hey, there. Good evening. Thank you for the opportunity to be a part of this. Very impressive information presented so far. So I am a

sergeant with the California Highway Patrol. I am based in San Luis Obispo. Our area encompasses Avila Beach and the surrounding area there.

So, obviously, sounds like this project is going to increase vehicle traffic, whether that's in the form of workers and/or truck traffic. That's yet to be determined and exactly what the impact will have is yet to be determined. The goal of the Highway Patrol is to ensure that everybody gets from point A to point B safely and we work with our partners in the county and Caltrans to make sure that happens.

So I should also have Captain Greg Klingenberg along with me here. He is the commander of the San Luis Obispo CHP office located in San Luis Obispo. That area also includes the Avila Beach area.

So Captain Klingenberg, if you're there, I'll hand the --

MR. LLOYD: Mr. Rose, is he on the phone?

MR. ROSE: I believe he is on his computer. So we have a backup plan. If he's not there, I've got some speaking points, as well.

MR. LLOYD: Who are you looking for again?

MR. ROSE: So it's Captain Greg Klingenberg and he should be on his computer. Let me touch bases with him here real quick. If not, I'm prepared to move

forward.

MR. KLINGENBERG: I'm here, Kevin, if they can hear me.

MR. ROSE: All right. You're up, sir.

MR. KLINGENBERG: Well, I'm here just to see where we are at this project. Thanks for the opportunity to listen in and to see what type of impact this is going to have. Kevin -- I previously worked in the same job Kevin Rose is doing now and have a little bit of experience related to projects in traffic mitigation and traffic enforcement and inspections of commercial vehicles and just getting that truck traffic in and out of the various projects that we've had. So, yeah, I just am here to answer any questions if I can related to the Highway Patrol. Kevin will have more specific answers related to the commercial vehicle traffic, but if there are any questions for the local CHP office, I want to be able to answer those, as well. So thank you very much.

MR. ROSE: All right. So, yeah, if there's any questions, feel free to interrupt, but like I mentioned, our goal is to make sure that the workers and trucks and the public, as well, that they're able to get where they need to go safely. We were also part of the Topaz Solar Project that was out on 58 that was mentioned

previously. We were actually out there almost like a grant and we had funds available to our department that allowed us to go out there and do dedicated enforcement. So in other words, it didn't take an officer off the road. These officers were able to go out there during peak travel times when workers were coming and going from the project and conduct enforcement and that enforcement was not interrupted if they weren't going to be called away to do something else. So that might be something to consider and work into this project, as well. It was very well-received.

Like Captain Klingenberg mentioned, I represent the commercial enforcement unit. Our unit is comprised of commercial vehicle specialists, if you will, and we do inspections on big rigs and sounds like a lot of these vehicles that we've been talking about tonight would be transporting non-hazardous material such as construction debris and we certainly -- we inspect those and we ensure that they are in compliance with federal and state regulations, and if those trucks are transporting a load, whether it's radioactive or any other hazardous material that requires placards being displayed on that vehicle, we're also going to do additional inspections. Any radioactive material being transported on the roadway would require an inspection

prior to that vehicle going on the roadway. So that's where we would come in.

California statute also gives the California Highway Patrol authority to set up inspection lanes. So, essentially, we could at random do vehicle inspections, do truck inspections along the road sides similar to what the inspection would consist of at one of the scales that you might pass by alongside of the road.

So that's essentially what we do, but the number one priority is safety and we enjoy working with the public and agencies on projects like this. Welcome any questions you might have.

MR. ANDERS: Sherri.

MS. DANOFF: I have a question probably just for Caltrans. I'm wondering does Caltrans influence the route that's selected? Does it look at alternatives or just respond to what the road proposed is?

MR. HENDRIX: We will have recommendations to the county, we will basically be looking at system and performance as a result of the traffic study that is provided by PG&E. That's about as much information as I can tell you based on the information given. Does that help answer your question?

MS. DANOFF: That does, that does, yeah.

You'll be influenced by the traffic study. Okay. Thank you.

MR. HENDRIX: You bet.

MR. ANDERS: Questions or comments to Caltrans or CHP?

MR. ROSE: This is Kevin Rose here with the CHP. Just on that last point, if there are trucks transporting oversized loads, which I guess could be a possibility, in those cases, the routes are designated and it's usually by the entity that would own that or be responsible for the maintenance of that roadway. So that could be a routing answer and, also, there's radioactive routes that we'll speak on later. I think that will be more appropriate for the next meeting, but that's another possibility.

MS. DANOFF: Good to know. Thank you.

MR. ANDERS: Thank you.

MR. HENDRIX: Yeah. Thanks for mentioning that. This is Peter from Caltrans. On that note, if there are transportation special loads considered, there is a division with Caltrans up in Sacramento that just does nothing but transportation permits. So that is not handled in our district, but we do work with them on occasion.

MR. ANDERS: Thank you, gentlemen. Thank you

all for your presentations.

And before we wrap this segment up, Sherri, do you have some thoughts on -- do you want to discuss barging alternatives and you've had some conversations with the Coastal Commission?

MS. DANOFF: Yes. Thank you, Chuck.

We requested of Tom Luster, who is with the energy division of the California Coastal Commission, that Coastal Commission participate and they were not able to, but they did provide -- or Tom provided some information for reading at tonight's meeting. So here goes.

"PG&E will need a coastal development permit from the county for the work on land and a coastal development permit from the commission for all decommissioning-related development activities below the ordinary high watermark. That would be such as removing any part of the breakwater discharge structure and so forth."

And he goes on to say, "I expect PG&E will include its proposed barge alternative as part of the same coastal development permit application. Also, a fundamentally Coastal Commission review is meant to determine whether the proposed project is consistent with the coastal resource protection requirements of the

Coastal Act Chapter 3, determine whether the proposed activities are the least environmentally damaging alternative for conducting the project."

It says, "For inwater construction or decommissioning activities, this could include identifying measures needed to avoid or minimize adverse effects to water quality and marine life, for example, silk curtains to reduce turbidity, buffer requirements to avoid eel grass, kelp or other sensitive habitat and so forth. We would also evaluate any inwater construction such as new piers, filings, buoys, et cetera, to determine whether it represents the least environmentally damaging and feasible alternative."

And then last comments, "If barge operations are determined to be the environmentally preferred alternative, our review could conceivably include identifying areas where the barges and their anchors should avoid, such as areas of eel grass or kelp beds, possibly timing restrictions and operational requirements to reduce potential impacts to marine mammals and other sensitive species, requirements related to spill prevention and response and other similar measures. Regarding federal approvals, we often act as a coastal development permit before a federal agency acts. In this case, as part of a coastal

development permit approval, we would likely require that PG&E provide documentation of those federal approvals as a condition of allowing work to start."

So that's it. Thank you, Tom.

MR. ANDERS: Thank you, Sherri.

MS. WOODRUFF: And that letter is available for the public to see somewhere?

MS. DANOFF: I've actually taken the comments from two emails, but I can -- I can put this together as a document, yes.

MS. WOODRUFF: I would recommend you post that to the comments on the DiabloCanyonPanel.org.

MS. DANOFF: I think that's a good idea. Yeah. Thank you.

MR. ANDERS: Thank you. We also have received a number of substantive comments on the chat line with regard to people expressed concern about the impact at Pismo Beach near the Pismo Beach rail yard and the community of Pismo Beach and the residents that are in the proximity of the rail yard or the route. They've also expressed concern about impacts on Highway 101, not just Avila Beach Drive and so on. So all of these comments will be placed in the official record and they will also be placed in the public comment database that we have on the website right now. So I want everybody

to know that those comments will be recorded and available to the panel.

Okay. To get an idea, the number of -- we have the public comment period coming up after the PG&E update. I just want to mention I know in our meetings the public comment period is done at the end of the meeting and it feels like the public, I guess, has to wait through three hours of meeting before they get the opportunity to speak. The reason that the panel has done that is so that the public has the opportunity to have all of the information available to them and any issues that might come up at the beginning of the meeting so they could speak to that at the end of the meeting and benefit from all of that dialogue and add to that. So I really appreciate the public hanging in there to provide comment.

So I want to get an idea of the number of folks that would like to provide comments. So if you intend to make a public comment -- and the public comment is verbal, it's not video, but it's verbal and it will be recorded and documented in the database -- please raise your hand on the website so we know how many folks we anticipate would be making statements. So why don't you go ahead and do that, if you would, and I'll introduce Tom Jones with PG&E to provide a PG&E update.

Oh, yes, Sherri.

MS. DANOFF: I don't know if we concluded panel questions and answers, but I have one.

MR. ANDERS: You have a question?

MS. DANOFF: Yes.

MR. ANDERS: Go ahead. I'm sorry.

MS. DANOFF: This will be a question of Dena Bellman if she's still here or Doug Barker, who is also with California State Parks. Just if you could provide what the permitting considerations would be for Montana de Oro just so we'll have a complete picture what the permitting considerations might be given what you know about what's possibly going to be proposed.

MS. BELLMAN: I don't know if you can see if Doug's on, but, you know, Trevor Keith with the county certainly spoke to some of the considerations. You know, the permitting process really requires the EIR and it is kind of bound by the CEQA process. So if you just want to know about the types of permits, certainly, you know, for state parkland, you'd need a right of entry, which requires your full EIR with all the mitigations and considerations that Trevor spoke about. So that would be used as the fundamental, I'll say, baseline to any of the permits, but in order to do -- and I'm just guessing because I can only perceive the type of work

that would be needed on that road in order to make it substantial enough to accommodate this project, but certainly there would be considerations by Coastal Commission CDP. If that was the route, that would be a consideration depending on what work needed to be done, fish and wildlife service. You know, it really depends what has to happen to that road in order to make it whole, like who gets involved, but if some of the building up of the road required impacts to any waterways, there are some creeks and water that flows through Montana de Oro. So, you know, that can bring in the Army Corps of Engineers. I don't -- I don't know if Noah would be involved. It would depend where that was. So there's an alphabet soup of permits that may be required based on any improvements that you might need to make to Pecho Valley Road, but the other thing, you know, is that, you know, what Trevor spoke to you from the county is that that is mostly under the county's -- you know, the majority of that road is owned by the county and would be considered in the EIR. So you would know a lot of that as you go through the EIR process and the CEQA process with the county. A lot of that would come to light through that if that was one of the alternatives.

MS. DANOFF: As Kara Woodruff mentioned, the

county probably would consider public access, whether that would be impeded. If Avila Beach Drive were used, would that be the same if Montana de Oro were selected?

MS. BELLMAN: Absolutely. That would be one of the considerations in the CEQA process and in the EIR.

You know, the EIR is very thorough. So I know that the county is going to take us through a really thorough process of determining all of the impacts because that's how you consider mitigations that Trevor did a fantastic job explaining. So when you talk about whatever those impacts are, that's how you consider the mitigation. So it's a holistic process, you know, the EIR CEQA process is.

MS. DANOFF: Thank you so much.

MS. BELLMAN: Sure.

MR. ANDERS: Any other questions? Let's move on to the PG&E update. Tom.

MR. JONES: Thank you, Chuck.

Go to the next slide, please. Couple of items to update the panel and the public about this evening. One, lest we forget, we have the RFP still in process for the new or updated storage system for our new spill at Diablo Canyon. This has a pronounced effect on the costs of the operation and also the time frame. Remember our current tech spec for handling fuel is

approximately a decade. We were asked by the Utilities Commission in a previous decision to look at seven and the proposed settlement that you have to be approved or evaluated by the Utilities Commission asked for four years. So they shaved six years off the project. That pulls that whole time line to the left. So it increases availability of building sooner, it increased or moved forward land to become available to the public. It would have a tremendous impact on the project.

So right now we're on track to complete what's called the RAI, request for additional information process. The vendors who originally had four weeks for that, they asked for a couple of additional weeks. So we've passed -- excuse me. We're right at the 90 RAIs. So we have 90 questions from vendors. As you might imagine, it's a complex system and contract. So the various vendors asked for additional technical specifications from PG&E or asked for clarification on a section of the request for proposal. So we passed the peak of that activity. It's winding down and the RAIs aren't as frequent, nor as elaborate. So we're narrowing and closing out that action item now.

We continue to work and reach out to the California Energy Commission in terms of this and we will in September start to evaluate those proposals from

vendors and include the CEC in that process, as well.

So what you see on here on this chart, it's a bit of an eye test. We've moved the box one, right? On that expanded view on the top bar, that's for 2020 and that points back to the major timeline. Previously we had that expanded view on 2019, right, it was about preparing the RFP, consulting with the agencies and issuing the RFP. So we've passed that threshold and we're on the home stretch for finding out what the marketplace has for solutions for that technical issue.

Go to the next slide, please. The panel had a number of issues or questions. This is for lands. So remember the Public -- the Public Utilities Commission sent a letter to PG&E on June 1st asking for additional clarity and what the process is by June 30th for those that are interested in either acquiring lands, seeing land conservation or being successful with repurposing. So we met with the CPUC staff just yesterday afternoon and we discussed a myriad of factors that are listed here before. This letter asks for some of our process to be defined before the CPUC has finished defining some processes for us like the tribal policy. So it's going to be a process, but we will have the letter to the commission on the 30th and they'll see the issues there, but it's a complex letter that they've asked for, but I

think we have -- we're in draft form now. I think we have a pretty robust answer, including some visual charts that will help the public understand when and where things to occur.

Second issue that's been ongoing for a while is the lawsuit regarding Wild Cherry Canyon and the leases on it. That dispute is whether the leases that are for 99 consecutive years with a renewal, so a total of 198, are valid. Eureka Energy's position is to follow the statute Civil Code Section 717 that says agricultural leases may not exceed 51 years. Obviously, the leaseholder has a different opinion. So that's in San Luis Obispo Superior Court. The court actions have been delayed because of the COVID pandemic. So we don't have a revised time frame now. So we hope to hear something soon, but we are unaware of when that will occur.
So that's just innovative.

Lastly, we've been getting regular updates on this. We moved further -- or closer towards agreement with the Coastal Commission on closing out these items. There's some technical issues that are nuanced for surveyors and legal descriptions that are beyond my comprehension, but the maps are complete, the narrative is finalized and everything is with the commission for further comment. You can see that update there. I

believe we also sent them a wholesome response to the panel.

Next slide, please. Lastly, bankruptcy, which has been a major issue for the company and our customers and many communities we serve, there's been a couple major milestones achieved since we last met. On May 28th, the Public Utilities Commission is our principal regulator in terms of operational safety and for our entire utility and our financial matters approved the plan of reorganization, and then on June 20th, it's actually last weekend, United States Bankruptcy Court also approved the plan of organization. There are a few additional steps before we exit. There are some entering into the state insurance program. There's a litany of next steps and provisions to the bankruptcy, but I highlighted a couple here. First and foremost, it helps bring some closure that we can never fully provide to the victims of the wildfires and then have some additional strengthening of the utilities, safety programs and additional oversight.

MR. ANDERS: Thank you. Any questions of Tom? Yes, Kara.

MS. WOODRUFF: Tom, I don't know if you said -- when you were talking about the dry cask storage RFP, can you say how many vendors have submitted proposals or

questions to you that you think will provide a proposal?

MR. JONES: Several. Last time -- we got asked this question last time. We have more than a couple and it was -- the way that we described it is every major vendor that has a fabrication capability and a licensing path is participating, but we don't tip off in public settings to vendors what the competition is. It's an unfair issue. So that's where we're at.

MS. WOODRUFF: So at the end of the day, does PG&E believe it has a sufficient number of vendors to be able to have some good choices to make?

MR. JONES: Yes. These are all the world leaders in this technology and they all have a slice of market share and have demonstrated ability to deliver products that are licensable I will say not just in the United States, but some of the operators around the world.

MS. WOODRUFF: And then we'll be able to talk about that in more detail at our September meeting, I would assume?

MR. JONES: From memory, I don't know the date only RFPs land versus -- when that closes out versus your September 9th date. We'll have an update I think -- we'll know closer to where we are, but I don't know what we can discuss off the top of my head. I'll

have to reference our schedule.

MS. WOODRUFF: You know, and from the panel's perspective, it may make sense to change our public meeting if by doing so in extra months we'll have a lot more information.

MR. JONES: Yeah. We're happy to work with the panel on adjusting the schedule if it lends a meaningful dialogue or more information.

MS. WOODRUFF: Okay. And then I just wanted to really -- this is a comment more to the people who are listening. Tom had mentioned that on June 1st the Public Utilities Commission wrote a letter to PG&E asking them for a response letter that's due at the end of this month and the topic of the letter is the disposition of the Diablo Canyon lands. In response to this letter from the PUC and in advance of PG&E's response to this letter, a few dozen community leaders wrote a letter to PG&E and to the Public Utilities Commission talking about the Diablo Canyon lands because I think this community has so much history, so much has been said and done about the Diablo Canyon lands that it's really important for members of this community to make sure that when PG&E does talk to the PUC about the future of the Diablo Canyon lands, that it includes this history and it reflects the will of the community.

So, for example, in this letter, it talks about the history of land conservation efforts. There have been several land trusts who have attempted to secure conservation of Wild Cherry Canyon. The group called Friends of Wild Cherry Canyon was born many years ago to protect that property. Now it's interested in conservation of all the Diablo Canyon lands. This engagement panel was formed in significant cart because Friends of Wild Cherry Canyon intervened in that early application to decommission the plant and they asked for the court to not allow PG&E to take any steps that might undermine conservation of the land, and then, also, of course, in 2000, this community voted 75 percent in support of conservation of the Diablo Canyon lands in this item called the Dream Initiative that was on the ballot, and then, also, as we talked about earlier today, the Coastal Commission itself has been really active in securing conservation of portions of the Diablo Canyon lands, and so I guess this letter really reflects the history and the wealth of the community, as well as this panel, in creating a strategic vision that repeatedly has asked for conservation of Diablo Canyon lands.

So I just want to say on the record I really hope that PG&E will respond to the PUC and take a

leadership role in ensuring the conservation of all the Diablo Canyon lands and not just do maybe what the law requires, but really take initiative to create a legacy for this community, and if anybody would like to see the letter, it is available for public view. It's not only on the DiabloCanyonPanel.org website as a comment, it's also on the Facebook page Friends of Wild Cherry Canyon.

So I think reading this letter will give people some insight into how the community views this question about the Diablo Canyon lands, but we're asking PG&E to take this letter and all of its information and incorporate it into your June 30th letter to the PUC. Thanks.

MR. ANDERS: Thank you, Kara. Any other questions or comments of Tom?

MR. LATHROP: I have a question of Tom.

MR. ANDERS: Go ahead, Scott.

MR. LATHROP: Okay. Tom, in your presentation, you talk about the Pecho partners plan. Just for clarification, is this Homefed or has there been some other kind of change there or who are the partners?

MR. JONES: It's Homefed and they have some other vested interests, but Homefed is the principal of that group.

MR. LATHROP: Is there, like, one or two? Do

we know how many other partners there are?

MR. JONES: I know that Homefed has approximately 90 percent share. I'm not sure of the division of the remainder.

MR. LATHROP: Thank you.

MR. ANDERS: Any other questions, panel members that are online?

Okay. Let's move on to public comment. We had three people raise their hands.

MR. LLOYD: We had a couple drop off. If you'd like to speak, please raise your hand. We had a couple people drop their hands down.

First speaker will be David Weisman. Mr. Weisman, we are going to unmute your microphone -- or allow you to talk and unmute your microphone then.

MR. ANDERS: And we're asking people to keep it to three minutes, if you can.

MR. WEISMAN: Is this working?

MR. LLOYD: Yes, sir.

MR. WEISMAN: Good evening. David Weisman, Alliance For Nuclear Responsibility. In listening to your presentations tonight, particularly the ones from both UCLA and later the California Department of Transportation, correct me if I'm wrong, but in a large majority, regardless of the volume of material, that is

to say the rubble, the construction material, the non-radioactive material for sure, anything that leaves on a truck and goes to the Pismo Beach rail yard then is placed on a train. We heard a lot about barges and the possibility today, we certainly heard about trucks and truck traffic, but I didn't hear anything or anyone speaking on behalf of the railroad. I know that the Caltrans has a department of rail and I would just suggest that this certainly is worthy of investigation because the California Coastline Railroad, formally Southern Pacific, now Union Pacific, and I didn't hear a representative from the Union Pacific, would have to be amenable to carrying this large volume of waste when you consider that the Union Pacific abandoned the coastline for freight service two years ago. There were no longer any freight trains traveling between San Luis Obispo and Los Angeles or Long Beach, only the half a dozen Amtrak trains a day, and the Union Pacific had even talked of abandoning this route. Now you're speaking of, as your calendar shows, a lot of this demolition material moving out in years like 2030, 2032, 2035, which is a long way from now, on a relatively narrow and potentially abandoned railroad, but the other reason the railroad was interested in considering abandoning the route is because in many places, due to coastal erosion,

expensive abutments and restoration of sea walls would be necessary to keep the tracks from sliding into the ocean and here the discussion involves what will be potentially very heavy trains with large, long amounts of this heavy material.

So I'm just wondering, especially to the UCLA researchers, I know you were looking at risks, but, of course, there would be the risks of -- remember we saw the Del Mar Bluffs collapse in the last rainy season. For the train, that would have been the one that is the same line that would carry the waste up from San Onofre had it gone a little further south. So I'm just wondering where is the consideration of that factor and when we can look forward to seeing that. Thank you very much.

MR. LLOYD: Thank you, Mr. Weisman.

Do you want me to continue with it?

MS. WOODRUFF: Wait, wait. Good question. Does PG&E have a response to that?

MR. JONES: We've not had a problem shipping out of our Pismo rail yard in the past. So I've texted our technical clerk, but I don't know that we're going to have time tonight to address every single question from public comment, but I'll follow up.

MS. WOODRUFF: Yeah. That would be interesting

to look into whether railroad is even a possibility. I guess we should have had somebody here from (inaudible).

MR. JONES: Our contracting teams and our transportation team have looked at these things and had bidders helping. We've contracted with bidders to help the NDCTP. So this is surprising to me.

MR. LLOYD: Is Mr. Miller on the line or just Miller on the line? I'm allowing you to speak. Please unmute your microphone. Is someone on the line for Miller? You are able to speak. They didn't unmute their microphone. Unfortunately, we're not hearing you on this end. I'm going to put you on mute for now and check back with you again.

I have Ms. Johnson. I'm unmuting your microphone or allowing you to speak. Please unmute your microphone.

MS. JOHNSON: Hi. This is Kailie Johnson. I met you all last October at the public workshop where I presented my Cal Poly architecture thesis and it's nice to tune in again and hear your voices. My question is also about the railway possibility and I see information, but looking at the northern route going through Montana de Oro, I was wondering what would be the condition for building either a road or railway because it's not connected right now between the plant

and the state park and just thinking about what are the future possibilities if a road or railway has to be built there and could it be used for public use after the material is transported out?

MR. LLOYD: Does that conclude your comments?

MS. JOHNSON: Oh, yes, that concludes my comment.

MR. LLOYD: Thank you. So I have Miller on the line. I'm asking you to unmute your microphone and try again. I'm sorry we are not hearing you. If you would like to write your comments in the chat section, you are welcome to do so, as well. That completes public comment.

MS. WOODRUFF: Do we want to respond to Kailie?

MR. JONES: We haven't analyzed building a railroad. That seems like a bridge too far, is my initial reaction, and we're not railroad operators. So when we look to specialists and companies with infrastructure to provide the services that PG&E doesn't, whether it's something as simple as a software program like Microsoft Word or the transportation companies that operate the trucking and barges, we won't be doing that. I don't know how rail to the north would be viable, especially when I also think of it in the context of CEQA and those impacts. I would be

challenged to see how that would be beneficial to a project of a financial aspect and a time frame, as well. That's a major coastal project before the major coastal project, is a way to think about it.

MS. WOODRUFF: She had also mentioned a roadway. So if a road were built up north, then presumably it would be available to the public afterwards.

MR. JONES: Right. There's an existing roadway now that's undergoing the improvements on the Diablo property, but, again, you have the points on the state park alignment and the county alignment prior to (inaudible).

MR. ANDERS: Okay. Before we talk about the next meeting and then adjourn this meeting, does the panel have any other comments or questions? Anyone online, panelists or panel members here in person? Any observations, comments, thoughts? Kara.

MS. WOODRUFF: My only thought about the process is I don't think the masks are working for people. I'm hearing that it's hard to hear. And so our future meetings, it might be better for us to all be at home without masks on for better audio.

MR. ANDERS: The alternative process would be rather than to meet like this, would be for everybody to

meet online. You could either all be remote or you could use your individual computers. If we do that, we still have a mask. By being individually remote, we don't have to wear a mask because you're in your office or in your house. So that's something for the panel to consider. We do have a problem with audio. We'll be able -- this will all be recorded. So we'll be able to go back and actually individually listen to this meeting and judge for ourselves or yourselves how this works.

So we'll do a debrief of this process after the meeting and see if there's a way to refine it, any alternatives, and go from there. Lauren.

MR. BROWN: I've noticed in the congressional hearings the speakers will often pull down their masks temporarily while they're speaking and they put it back up. I don't know. Is that acceptable?

MR. ANDERS: That's a simple fix and something we can check with the county.

MR. JONES: I'm certain there will be additional guidance between now and September with how fluid this has been so far. I think it's more of a week-of decision in September than perhaps (inaudible).

MR. ANDERS: I will note that we did get a comment from Guy Savage with the county thanking the panel for wearing masks in the building.

Any other thoughts or comments? David, Dena, Linda, Scott?

Okay. Our next meeting is scheduled for September 9th and the topic is the management, storage and transportation of spent nuclear fuel update.

In the spring of 2019, the panel held two full-day workshops and one full panel meeting on the topic of spent fuel management. During that time, a lot of issues came up and subsequently the panel asked PG&E to do a more -- a really thorough risk analysis of the handling and management of spent fuel at Diablo Canyon. PG&E followed through and to the panel's request and contracted with Dr. Garrick and his organization to do a detailed risk analysis of spent fuel handling and management and that report will be available for discussion at that meeting.

MR. JONES: As well in front of that meeting.

MR. ANDERS: Okay. And also probably any additional information that we have with regard to our process and updates. So it should be a very informational meeting and hope the panel is looking forward to it. Nancy.

DR. O'MALLEY: In the next meeting, if PG&E can give an update on the information they found out about barging and also about the rail line, you know,

addressing Mr. Weisman's comment.

MR. JONES: I'll give a status of those efforts. I don't know that we'll have a completed barging study because it's pretty extensive, but at least a status update.

MR. ANDERS: And the components of the transportation assessments that were in the document that we discussed tonight, there is a component that relates to spent fuel transportation and that would also be discussed at that time. Kara.

MS. WOODRUFF: I just wanted to recognize and thank Sherri. She worked really hard on this meeting and got the speakers and agenda together.

MR. ANDERS: Thank you, Sherri. Very good. David. Do you have a comment?

MR. BALDWIN: Yeah. First of all, I wanted to let all the speakers know, and you that are there in person, I've been able to hear you fine throughout the night. So on my end, it's been good.

And the other thing I wanted to mention was as San Onofre is moving along in their process, should we make some kind of regular effort to report on what's happening there? Mainly, I'm thinking about from a best practices lessons learned type of thing since it's another large nuclear generated facility that's going

into decommissioning, should we make some kind of regular occurrence at our meetings or on our reporting from PG&E? Is there a way we can incorporate that or do the other panelists feel like that's something you'd like to hear about or follow?

MR. ANDERS: We could do that. Tom?

MR. JONES: David, Tom from PG&E. Yes. Edison's very generous with sharing information on their decommissioning and the nuclear industry has something called operational experience where we share with all operators lessons learned from activities. So they've been very generous and I wouldn't expect that to change. That's something you can reach out to Edison in the coming weeks and let them know that interest.

And, additionally, we'll provide the panel or the panel has access to it already of your counterpart's schedule that's online and their meetings also stream. So you can also see their upcoming agendas and topics and interaction, as well.

MR. ANDERS: I do want to remind the panel that the NRC reports to congress on best practices for public -- public outreach and communication. Basically, public engagement's organizations is due by the end of this month and I believe it's on track.

MR. JONES: It's due July 14th by statute and

it's in the final stages of review, is what the staff has communicated.

MR. ANDERS: All right. Any other thoughts or comments before we adjourn? I know Tom would like to have the floor for a minute.

MR. JONES: Yeah. I'd like to thank the panel and the subcommittee for all their hard work and also for our guests, Dr. Garrick and Dr. Roy, a substantial lift and a tool that most decommissioning facilities don't have or the public doesn't get to examine a public works' risk assessment on transportation is a notable effort. I'd like to again commend them for their effort and thank them for that.

We have a slide ready here. The panel is a little bit different these days and we haven't had a chance to say good-bye to the service, not the person, of Fred Mecham, if you can bring that up. We're working on a slide, but we want to thank Frank sincerely on his efforts on the inaugural years of this panel. His former tenure as the chairman of the Board of Supervisor and the mayor of Paso Robles is instrumental, I think, in helping form some of the norms and procedures of this board and the charter in helping the MOU and revision and this plaque -- we actually have a plaque, but we checked in with Frank and he's not ready to meet with

folks yet. So we'll figure out how to recognize him at some point, but this is a quote from the first panel meeting. You might remember this. We were talking about the scale and the length of this project. Best information today is the dry cask storage could be removed by 2072 and he kind of giggled, but then he laid this quote down. For members of the public that can't read this, it's, "The decisions I make are not for me, but for generations to come." That's what the panel will do, is to try to determine what is best for future generations and I think the entire panel has lived up to that and I know the PG&E team endeavors to pursue that, as well. So I just wanted to acknowledge Frank Mecham's service to this panel and helping us begin the work efforts.

MR. ANDERS: Thank you, Tom. Lauren.

MR. BROWN: I think it would be good to make a final pitch that we are restarting the application process for potential new members.

Tom, do you want to just elaborate on that a little bit?

MR. JONES: Yeah. That was suspended due to COVID. We had seen a substantial decline in participation and interest than we saw in the original one despite heavy advertising campaigns. So tonight is

the movie trailer and it goes live tomorrow on your website and on PG&E's website and then the advertising campaign kicks off shortly thereafter. It will be another significant investment in local advertising. We had garnered, I believe, 16 applications or reapplications. In the same time frame previously when the world wasn't so topsy-turvy, we received over 100. So I think taking that pause with the panel's conference was the right thing to do and it will push out for another month and evaluate the applicants for the service on this panel to represent the community.

MR. ANDERS: Thank you, Lauren.

Before we close, I would just also like to thank all of our speakers tonight. The presentations you could see were excellent, well thought out. A lot of effort went into many of the presentations. So we thank you very much for your support and service to the panel.

MR. BROWN: And let's thank all the people who tuned in. All the public who participated, we appreciate you taking hours of your time to participate and have the opportunity to send us chat messages and to talk.

MR. ANDERS: I think we had up to 64 public participants.

All right. With that, everybody stay healthy, travel safely and the meeting is adjourned. Thank you all for participating.

(The meeting adjourned at 9:31 p.m.)

REPORTER'S CERTIFICATE

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I, MELISSA PLOOY, Certified Shorthand Reporter, court reporter pro tem for the State of California, County of San Luis Obispo, holding Certified Shorthand Reporter License No. 13068, do hereby certify:

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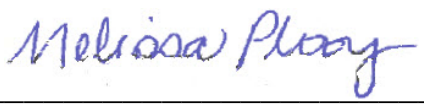

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