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CEP REGULAR MEETING
SONGS ENVIRONMENTAL STEWARDSHIP

Casino San Clemente and
via Microsoft Teams

TRANSCRIPT OF MEETING
June 13, 2024

Reported by:
Denise Herft, CSR #12983
Job No. 6451345
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SAN ONOFRE DECOMMISSIONING
COMMUNITY ENGAGEMENT PANEL MEETING
STATE OF CALIFORNIA, COUNTY OF ORANGE

Transcript of video-recorded meeting at
Casino San Clemente and via Microsoft Teams
commencing at 5:30 p.m., Thursday, June 13, 2024.

1 COMMUNITY ENGAGEMENT MEMBER ATTENDEES:
2 CEP CHAIRMAN - DAN STETSON, THE NICHOLAS ENDOWMENT
3 CEP SECRETARY - MARTHA McNICHOLAS
4 VICE CHAIRMAN - HON. VICTOR CABRAL - MAYOR, CITY
OF SAN CLEMENTE
5
6 CAPTAIN MEL VERNON - SAN LUIS REY BAND of MISSION
INDIANS
7 MICHELLE ANDERSON - ORANGE COUNTY SHERIFF'S
DEPARTMENT, EMERGENCY MANAGEMENT DIRECTOR
8
9 HON. JOHN TAYLOR - SAN JUAN CAPISTRANO CITY
COUNCIL
10 GARRY BROWN - PRESIDENT/CEO - ORANGE COUNTY
COASTKEEPER
11
12 SCOTT KIBBEY - CALIFORNIA STATE PARKS, SOUTH
SECTOR SUPERINTENDENT
13 KELVIN BARRIOS (alternate for VAL MACEDO LABORERS'
INTERNATIONAL UNION of NORTH AMERICA, LOCAL 89)
14
15 MIKE BALSAMO - SR. VP, GOVERNMENT RELATIONS RANCHO
MISSION VIEJO AND SOUTH ORANGE COUNTY ECONOMIC
COALITION BOARD MEMBER
16
17 JIM DESMOND, SAN DIEGO COUNTY SUPERVISOR, 5th
DISTRICT
18 KATRINA FOLEY, ORANGE COUNTY SUPERVISOR, 5th
DISTRICT
19
20 ALYSSA NAPURI (Alternate for KATRINA FOLEY, ORANGE
COUNTY SUPERVISOR, 5th DISTRICT)
21 KRISTAL JABARA - (Alternate for JIM DESMOND)
SAN DIEGO COUNTY SUPERVISOR, 5th DISTRICT
22
23 MICHAEL PARHAM - VICE PRESIDENT, CAPISTRANO
UNIFIED SCHOOL DISTRICT BOARD of TRUSTEES
24
25

1 SOUTHERN CALIFORNIA EDISON SCE REPRESENTATIVES:
2 FREDERIC BAILLY - CHIEF NUCLEAR OFFICER AND VICE
PRESIDENT OF DECOMMISSIONING

3
4 JERRY STEPHENSON - SCE INDEPENDENT SPENT FUEL
STORAGE INSTALLATION (SFSI) ENGINEERING MANAGER

5
6 GUEST SPEAKERS:
7 PAUL MURRAY (Deputy Assistant Secretary, SPENT
FUEL and HIGH-LEVEL WASTE DISPOSITION, U.S.
8 DEPARTMENT OF ENERGY)
9 U.S. CONGRESSMAN MIKE LEVIN

10
11 SCE TECHNICAL SUPPORT PRESENTERS:

JULIA MARTINEZ - Presentation Slides

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GENERAL PUBLIC COMMENT

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1 Casino San Clemente and via Microsoft Teams

2 Thursday, June 13, 2024

3
4 CHAIRMAN DAN STETSON: Good evening,
5 everyone, and please make your way to your seats,
6 if you can. We're going to go ahead and get
7 started. It's such a beautiful day. I believe so
8 many are out there checking out the surf right
9 now.

10 For those of you who are here in person,
11 thank you so much. And thank you for those who
12 are attending via Zoom.

13 Welcome to today's joint meeting of the
14 SONGS Community Engagement Panel and the Spent
15 Fuel Solutions Coalition. Thank you for joining
16 us this evening.

17 For those of you who are new, my name is
18 Dan Stetson, and I'm the volunteer chair of the
19 Community Engagement Panel. As you recall, the
20 CEP is intended as a two-way bridge between SCE
21 and the local community.

22 As way of reminder, the Spent Fuel
23 Solutions is a group of local government, elected
24 officials, utilities, labor leaders, native
25 American leaders and, business organizations, and

Page 6

1 other community members who support the relocation
2 of spent fuel to a federally-licensed facilities
3 away from the coast line.

4 The Spent Fuel Coalition co-chairs San
5 Diego County Supervisor Jim Desmond, and Orange
6 County Supervisor Katrina Foley both also members
7 of the CEP will be presenting shortly.

8 Please note that this meeting is being
9 recorded. Our main topic for today is the federal
10 spent fuel management program and the efforts
11 under way to provide for consolidated interim
12 storage facilities. Later in the meeting the SCE
13 will provide a brief dismantlement update. A
14 draft of the presentation was posted a week ago.

15 Let me first thank all of the technical
16 staff that are here that are really doing the
17 magic behind the scenes, and we greatly, greatly
18 appreciate, they've already been up here a number
19 of times saving us. We also want to thank Julia
20 Martinez from SONGS for advancing the slides.

21 If we can go to the next slide, please,
22 and we can see the agenda. You can see that we
23 have a lot going on tonight. With respect to
24 meeting timing and format, we made some
25 adjustments to accommodate the participant's

1 schedules and to dive right into the main topic.

2 I will provide a recap with congressional
3 subcommittee meeting that I was invited to back in
4 Washington, D.C. and the co-chairs then of the
5 Spent Fuel Solutions, again, Jim Desmond and
6 Katrina Foley will share their observations from a
7 recent advocacy trip to Washington, D.C. during
8 which they met congressional leaders.

9 Speaking of congressional leaders,
10 representative Mike Levin will be joining us from
11 Washington, D.C. where congress is in session.
12 Representative Levin will say a few words about
13 the offsite disposition of spent fuel, and then he
14 will introduce our guest Paul Murray.

15 Paul is the Deputy Assistant Secretary of
16 Spent Fuel and waste Disposition for the
17 Department of Energy. That's a mouthful. After
18 Paul's update, we'll take a short break and
19 continue with the CEP updates.

20 Then the CEP Vice President and SONGS
21 Chief Nuclear Officer Fred Bailly will cover the
22 big picture at SONGS. SCE ISFSI engineering
23 manager, who has been at SONGS for over 40 years,
24 will share the high level project schedule and
25 dismantle work activities, and I understand

1 completed a recent major milestone that he's going
2 to give us an update on.

3 Following the dismantlement update, we'll
4 have a full hour dedicated to public comment. CEP
5 Vice Chair Victor Cabral and CEP Secretary Martha
6 McNicholas will facilitate responding to any
7 questions we may receive from the public.

8 For members of the CEP, we welcome your
9 comments during the presentations.

10 If we could go onto the next slide,
11 please. And, Fred, if I could turn it over to you
12 to see if you have any opening comments.

13 FRED BAILLY: Sure, thank you, Dan.
14 We're really pleased to be here in person and
15 online for the second quarter CEP meeting. It's
16 always a pleasure to see members, guest speakers
17 and the public face-to-face versus online.

18 I'm also pleased to have you, Paul, with
19 us this evening. I look forward to your update.
20 We invited Paul earlier to visit the site and look
21 at the spent fuel dry cask storage facility, and
22 he also had an opportunity to meet with CEP
23 leadership and Spent Fuel Solution Coalition
24 co-chairs, as well as community members, and the
25 idea was for Paul to listen to their concerns

1 about the continued storage of spent fuel on site.

2 So we will have an update on your federal
3 spent fuel management program, so look forward to
4 this. And finally Southern California Edison is
5 honored and that California Representative Mike
6 Levin will join us this evening. We appreciate
7 his focus on the spent fuel challenge.

8 CHAIRMAN DAN STETSON: Thank you, Fred.

9 May we have the next slide, please. Here
10 is a list of all the CEP members so I just wanted
11 to put the list up. We have about 18 folks on the
12 CEP, and these from all different parts of the
13 community, so these are the folks that if you have
14 questions or comments or concerns, please feel
15 free to reach out to these different members so
16 that they can bring them back to the panel so that
17 we can bring them here for discussion.

18 If we go -- so special thanks also to my
19 Vice Chair Victor and Secretary Martha who really
20 going to -- it's a great team helping us through
21 the evening.

22 If we could move to the next, please.
23 Please recall that we will have a dedicated public
24 comment period following the presentations. Here
25 you see the directions for participating in the

1 public comment. For online participation, as
2 always, members of the public had the opportunity
3 to submit comments and questions in advance.
4 Comments submitted by e-mail receive priority and
5 that can be found on the meeting web page.

6 For those participating in the public
7 comment meeting, submit written comments and
8 questions or sign up for oral comments using the
9 online CEP comment form.

10 For those who are here in person, there
11 are guest question comment cards at the entrance.
12 Please include your name if you wish to speak.

13 For this meeting, comments and questions
14 related to our focus topic and guest speaker Paul
15 Murray will be addressed first and general
16 questions will be addressed in the order received.
17 We will also begin our public comments with people
18 in the room and then move on to those that are
19 online.

20 For CEP members joining us in person this
21 meaning, if you have a question or comment just,
22 as you recall, lift up your card and Victor will
23 be sure to help make sure that we see those. For
24 CEP members joining online, if you have a question
25 or comment, you should raise your hand icon under

1 reactions at the top of your screen so we can
2 identify you and make you a presenter.

3 For CEP members who may join late, we may
4 not be able to see your name on the list and
5 change your status from a guest to a presenter and
6 thereby allow you to open and close your
7 microphone, in that case, you'll have to use the
8 raised hand icon for us to see you and make sure
9 that way we can make you a presenter.

10 For CEP members calling in, audio only,
11 to open and close your microphone, please use star
12 6 and keep yourself muted until you wish to speak.

13 And to raise your hand by phone, CEP
14 members should use star 5. If there are
15 questions, Victor and Martha will facilitate the
16 public dialog.

17 Okay. If we go on to the next slide,
18 please. As you may recall, I was invited to go
19 back to Washington, D.C. and participate at a
20 subcommittee hearing meeting.

21 If we could go on to the next slide,
22 please. The U.S. House of Representatives Energy
23 and Commerce Committee has a subcommittee known as
24 The Energy, Climate, and Grid Security committee,
25 which held a hearing on April 10th. I was invited

1 by Representative Scott Peters to testify on
2 behalf of the communities in the vicinity of
3 stranded spent fuel. And I went there really and
4 testified with three goals and three areas of
5 focus. Number 1, I testified that for the
6 communities around SONGS a top concern is the
7 spent nuclear fuel, that is both the onsite safe
8 storage of the spent fuel and the prompt offsite
9 relocation of fuel.

10 Number 2, I have emphasize how
11 consent-based interim storage of spent fuel is
12 monumentally important, because it can deliver off
13 site storage decades earlier than deep geological
14 repositories.

15 And then number 3, I reviewed a number of
16 policy changes needed in the Nuclear Waste Policy
17 Act that had been formulated by more than two
18 dozen stakeholders from across the country. Most
19 of these are in direct alignment with those
20 recommendations by the Blue Ribbon Commission.

21 I have to say that I was really
22 surprised, and I felt good after the meeting. I
23 felt that the amount of bipartisan engagement and
24 cooperation and the questions they asked really
25 surprise me and actually warm my heart. I felt

1 that they were thinking of instead of quibbling
2 back and forth, they are really focused that no
3 matter what direction we move on with nuclear
4 fuel, the back end is of critical importance that
5 we need to come together with that. Twenty-six
6 congressional leaders delivered remarks and
7 questions during the three and a half hour
8 hearing.

9 As I mentioned, I left feeling very
10 optimistic about the entire meeting. In fact, the
11 chair of the subcommittee stated that the next
12 steps is to consider a legislative initiative.

13 Now, I would like to turn it over to the
14 Spent Fuel Coalition's co-chair and San Diego
15 County Supervisor Jim Desmond for an update on the
16 Coalition's progress.

17 SUPERVISOR JIM DESMOND: Thanks, Dan. I
18 appreciate it.

19 Thank you all for being here. I'm
20 pleased to provide an update on the Spent
21 Fuel's -- Spent Fuel Solutions advocacy work that
22 we've done over the past few months. So achieving
23 our goals is going to require amendments to the
24 Nuclear Waste Policy Act, to allow for flexible
25 and durable spent fuel management program will

1 build permanent disposal and interim storage.

2 We've begun meetings with federal leaders
3 to discussion the legislation that addresses our
4 policy priorities, which are consistent with the
5 Blue Ribbon Commission recommendations.

6 So on the next slide, I don't know if I'm
7 already ahead a slide. There it is.

8 On May 8th Supervisor Foley from Orange
9 County here, and I visited Washington, D.C. in our
10 roles as the coalition co-chairs to brief members
11 of the house and senate committees of jurisdiction
12 as well as some of our local representatives.

13 So the purpose of these meetings was to
14 discuss our policy priorities and to articulate
15 why this is an urgent issue, and advocate for a
16 legislation and offer our support. We plan to
17 expand our outreach to other members of congress
18 as we continue working on our local
19 representatives and the committees of jurisdiction
20 both in the house and the senate.

21 The next slide. Additionally, we're
22 pleased to announce that on May 9th Assembly
23 Member Laurie Davies and Senator Catherine
24 Blakespear, both here of California, jointly
25 introduced Assembly Joint Resolution 18. The

1 resolution calls on congress to prioritize federal
2 government's obligation to provide a home for the
3 spent fuel in California and 33 other states
4 across the nation of spent nuclear fuel. To date
5 the coalition has briefed the offices of more than
6 30 assembly members and state senators with the
7 emphasis on districts that do have the spent fuel
8 stored.

9 The resolution and briefings are part of
10 a wraparound campaign to demonstrate broad support
11 for federal action that includes op-eds, webinars,
12 and other media and engagement to let people know
13 or become more aware of the action that we're
14 trying to take to move this -- get the spent
15 nuclear fuel moved. We've got a website,
16 spentfuelsolutionsnow.com for information about
17 other ways to advocate as well as other
18 opportunities in the federal level.

19 And now is our chair -- is Supervisor
20 Foley here?

21 CHAIRMAN DAN STETSON: She's online.

22 SUPERVISOR JIM DESMOND: She's online.
23 I'll turn it over to my co-chair Orange County
24 Supervisor Katrina Foley.

25 SUPERVISOR KATRINA FOLEY: Thank you,

1 Supervisor Levin. I'm sorry I wasn't able to be
2 there in person tonight, but I'm over here at Soka
3 University on a human trafficking panel that
4 starts here shortly, so I'm doing double duty
5 here.

6 As Supervisor Desmond mentioned, our
7 coalition visited Washington, D.C. last month with
8 federal leaders about legislative changes we did
9 to facilitate spent fuel solutions. I think that
10 it's safe to say that we learned a lot. We spoke
11 to so many staffers and congressional leaders, and
12 I think we made a lot of progress for our efforts.

13 Among those leaders was our own
14 Representative Mike Levin. As many of you know,
15 Representative Levin has long advocated for the
16 removal of spent nuclear fuel from SONGS and
17 served as a leader in the spent fuel space. He is
18 really taking a lead here for us here in
19 California and for the whole nation.

20 He established and co-chairs the
21 bipartisan Spent Nuclear Fuel Solutions Caucus,
22 and this caucus seems to drive the progress on the
23 safe storage transportation and disposal of spent
24 fuel. Representative Levin has also been a strong
25 advocate for the appropriations needed to support

1 the Department of Energy's ongoing work on
2 consolidated interim storage.

3 And we had the privilege to be able to
4 meet with Mr. Murray earlier today, and we
5 understand he's going to be giving a report, and
6 there's great news on the horizon. We are making
7 progress finally in helping with this effort.

8 Representative Levin is here tonight. We
9 commend him for the efforts and appreciate his
10 dedication to relocating spent fuel away from our
11 coastline as quickly and safely as possible, and
12 so it's my great privilege to be able to introduce
13 Representative Mike Levin who will say a few words
14 and give us an update as well.

15 Thank you all for all the work that
16 you're doing, and thank the community for
17 participating.

18 REPRESENTATIVE MIKE LEVIN: Thank you so
19 much, Supervisor Foley. Hopefully everyone can
20 hear and see me all right. Greetings from a very
21 humid Washington, D.C. where last night we played
22 the congressional baseball game for charity, and
23 congratulations to my republican friends. They
24 had a big victory, but we'll be back next year.

25 I wish I were there with you in person.

1 My friend Dan Stetson, Supervisor Desmond, and
2 everyone there, I see Mayor Cabral there as well.
3 We're here voting on the National Defense
4 Authorization Acts and amendments to it through
5 the next couple days, but I look forward to being
6 back in California.

7 I want to thank my friend Paul Murray.
8 If you come, and you visit my office in
9 Washington, D.C., there aren't very many people
10 whose business cards sit on top of my desk, but
11 Paul's business card is right top and center on my
12 desk and it has been for quite sometime, because I
13 think that his work is singularly significant as
14 it pertains to spent nuclear fuel and doing
15 everything that a Supervisor Foley just mentioned,
16 which is getting the spent nuclear fuel off our
17 coast in San Onofre as quickly as we possibly can
18 and as safely as we possibly can.

19 I think everybody knows this, but just to
20 recap, SONGS currently stores more than 3 and a
21 half million pounds of spent nuclear fuel just a
22 hundred feet from the Pacific Ocean near active
23 fault lines surrounded by highly populated areas
24 and on marine corp base Camp Pendleton.

25 Since I took office in 2019 one of my top

1 priorities has been moving this the spent nuclear
2 fuel from SONGS as quickly and safely as we can.

3 When I first came to congress there was
4 very little momentum to even start trying to find
5 a solution for our nation's spent nuclear fuel,
6 and as I said repeatedly, will continue to say the
7 issues at SONGS are really a symptom of a greater
8 problem, and that problem is a lack of a
9 nationwide repository and storage sites. I think
10 we all know, the current system of storing the
11 waste on site at plants across the country is
12 neither a safe nor a viable long term solution.

13 Communities like ours have not consented
14 to store nuclear waste long term. That word
15 "consent" is quite important. I immediately got
16 to work in 2019 to advocate for federal action and
17 for resources to address the challenges at SONGS,
18 and to remove waste from our community.

19 I led the effort to secure \$20 million in
20 the fiscal year 2021 government funding
21 legislation to restart DOE's consent-based siting
22 process. I've tirelessly fought for increased
23 funding in the years since, and we have been quite
24 successful, and we've done so on a bipartisan
25 basis.

1 In total, my colleagues and I have
2 successfully secured \$148 million for DOE to
3 manage our country's spent nuclear fuel. This
4 funding supports not just the consent-based siting
5 process but also all of the facilities, equipment,
6 personnel, and transportation systems required to
7 remove spent fuel from current sites to a
8 consolidated interim storage system and eventually
9 a permanent disposal facility.

10 I'm really excited for you all tonight to
11 hear from Paul about his great work and his plans
12 for the future in the federal spent fuel program
13 and hear how all this funding is being put to good
14 use.

15 Also of importance, I founded the
16 bipartisan Spent Nuclear Fuel Solutions Caucus,
17 which I co-chair with my good friend Chuck
18 Fleischmann, a republican from Tennessee who is on
19 the winning side of the congressional game last
20 night, but Chuck and I host bipartisan discussions
21 and meetings with members of congress including
22 the one that we had with Paul just a couple months
23 ago.

24 Our caucus brings folks together to bring
25 momentum to really build the importance of these

1 issues with the new generation in congress for
2 continued progress on spent nuclear fuel
3 solutions, and I'm very proud that I've been able
4 to secure funding for DOE's work thus far, but I
5 also want to be clear-eyed for a minute about the
6 situation going forward. For one thing it will
7 take more time. It will take years. It took
8 years to make this mess, it's going to take years
9 to fix it.

10 And we're going to need more funding, and
11 in particular we're going to need more funding for
12 each fiscal year commensurate with where we are in
13 the consent-based siting process.

14 Second, I think it's important for us in
15 congress to act on a comprehensive strategy to
16 reimagine, and I completely agree with my friend
17 Supervisor Desmond, to reimagine the outdated
18 Nuclear Waste Policy Act and other direct changes
19 that reflect the landscape after decades, decades
20 of unsuccessful attempts to dictate the disposal
21 of spent nuclear fuel at Yucca Mountain in Nevada.

22 There are a number of policies that we've
23 got to be considering, and I'm engaging on a
24 bipartisan bicameral basis. So critical we get
25 the senate to engage to advance changes to the

1 Nuclear Waste Policy Act that we need for a
2 comprehensive total system strategy for managing
3 our nuclear waste in a consent-based manner, and
4 I'm working also to advance steps on the margins
5 to make sure that we continue making progress here
6 or there, where you are, every year.

7 And a lot of this hinges on the
8 groundwork that Paul and his team are doing right
9 now to meaningfully engage with communities all
10 across the country through the consent-based
11 siting process. The process unlike, frankly, past
12 efforts around nuclear waste storage and disposal
13 is transparent, it allows for mutual learning
14 between the government and interested communities
15 and, importantly, it prioritizes the health,
16 safety, community well-being, and benefits for
17 local communities.

18 As I'm sure you're going to hear more
19 from Paul, we're currently in the first phase of
20 the consent-based siting process and based on the
21 proposed timeline that we've worked on and DOE has
22 done a great job to outline, spent nuclear fuel
23 from SONGS will begin to be transferred between
24 2033 to 2038.

25 Now, I am a perennially impatient person.

1 I want it done yesterday. I think Paul knows
2 that, but I understand this is a process, and I
3 appreciate Paul explaining that process to the
4 group. I'm going to be pushing, of course, to
5 make it move faster.

6 While we still have a way to go, the good
7 news is that for the first time in over a decade
8 the federal government has a plan to address spent
9 nuclear fuel. When I took office there was no
10 plan. I'm very proud to have played a leading
11 role of getting to this point. I look forward to
12 continuing to work with you all and Paul and his
13 team to keep us moving in the right direction. I
14 think he's absolutely the right person to be
15 leading his effort. Again, his business card sits
16 on my desk every day. We need him to be
17 successful.

18 With that, I thank you for your continued
19 attention, I thank you for your work on this
20 important issue, and I believe, Paul, the floor is
21 yours.

22 PAUL MURRAY: Thank you very much. So
23 let me introduce myself. I'm Paul Murray
24 originally from England. I moved to the U.S. in
25 1986. I'm married 36 years, two children, two

1 grandchildren both born last year. I joined DOE
2 last October after 44 years in the nuclear
3 industry.

4 So next slide, please. When I joined
5 back in 2023, the program had a long history
6 before me. So back in the 1950s National Academy
7 of Science decided that we needed a geological
8 repository. 1982 Nuclear Waste Policy Act was
9 passed, which is currently the law still.

10 1987 Nuclear Waste Policy Act was amended
11 instead of a consent-based process, we picked
12 Yucca Mountain and went all out on Yucca Mountain.
13 It wasn't a consent-based process. We basically
14 forced Nevada to take the repository.

15 So in 1998 we were supposed to start
16 picking up the spent nuclear fuel, so DOE entered
17 into contracts with the utilities, and the
18 utilities paid us to manage the spent nuclear
19 fuel. The Nuclear Waste Fund currently stands at
20 about \$45 billion. The interest on the Nuclear
21 Waste Fund accrues at about a 1 and a half billion
22 dollars a year. We've been paid to manage the
23 spent nuclear fuel. We're in default of the
24 contract.

25 Every year the utilities sue the federal

1 government on average about \$800 million. If
2 everything I talk about tonight stays on schedule,
3 on track, our liability for the spent nuclear fuel
4 stands at about \$34 to \$35 billion.

5 In 2010 congress defunded the Yucca
6 Mountain project. The Office of Civilian Rad
7 Waste Management went away. The remaining
8 employees went to the Office of Nuclear Energy.
9 DOE nuclear energy is really an R&D organization.
10 So for 14 years we've been doing R&D. I joined
11 last October, and I'm trying to change the
12 program.

13 I'm an engineer, a mechanical engineer,
14 so I'm trying to ready the program to get ready to
15 actually deliver on what we're supposed to do.

16 Next slide, please. So what am I
17 supposed to do? I'm responsible for picking up
18 the spent nuclear fuel at all the reactor sites in
19 the U.S. At the end of their operating life,
20 there will be 140,000 tons of spent nuclear fuel.
21 I'm responsible for picking up the DOE
22 environmental management high-level waste. The
23 DOE EM is currently is vitrifying its high-level
24 waste at Hanford, Savannah River, Idaho, West
25 Valley; I'm responsible for picking that up. So

1 21,000 canisters, and these canisters are over
2 2 feet in diameter and about 15 feet tall. I'm
3 responsible for disposing of the naval reactor
4 spent nuclear fuel, the DOE spent nuclear fuel,
5 and if we build any new advanced reactors, I'm
6 responsible for picking up that fuel up and
7 disposing of it as well. These are my partners,
8 my customers. This is who I'm responsible for.

9 Next slide, please. So in the U.S. we
10 began using nuclear power in 1958. We are the
11 largest user of nuclear power in the world. We
12 are the only western country, apart from Ukraine,
13 that doesn't have a repository program. Everybody
14 else has a repository program going forward.

15 Today in 2024 we actually have 94
16 operating reactors. The plan is to try and triple
17 nuclear by 2050.

18 Today we have 20 shutdown reactor sites.
19 Some of the sites, the reactors have gone. All
20 that sits there is spent nuclear fuel. Some of
21 those communities are really hurting.

22 Next slide, please. The current fleet
23 will shut down one day. We keep it -- this is for
24 illustration only -- but the current fleet will
25 shut down. They all then become stranded sites as

1 well.

2 Next slide, please. So DOE EM as I said,
3 Hanford, Pacific Northwest, Idaho National Lab,
4 Fort St. Vrain, Savannah River, let me give you an
5 example, Savannah River is vitrifying its
6 high-level waste. It's turning its waste into
7 glass, and it has been for the last 20 years. In
8 2034 it stops; it has completed its mission.
9 Savannah River then becomes a stranded site for
10 high-level waste.

11 Next slide, please.

12 AUDIENCE MEMBER: Can you explain
13 vitrified for the residents.

14 PAUL MURRAY: Yes, sure.

15 So the waste the DOE EM has is the waste
16 that's left over from producing the atomic bomb
17 after World War 2, so they've collected millions
18 and millions of gallons of liquid high-level
19 waste, and so they're taking that high-level waste
20 and turning it into a glass. It's a stable waste
21 form we can dispose of.

22 The other thing to bear in mind is you
23 hear a lot about advanced reactors. Everybody
24 talks about the big new shiny reactors we're going
25 to build. The spent nuclear fuel coming out of

1 these reactors is always forgotten. Nobody ever
2 talks about, nobody wants to talk about it.
3 Before the reactor can become operational DOE has
4 to sign what's called an amended standard contract
5 with the reactor operator to say we can take the
6 fuel and dispose of it. They can't just turn the
7 reactor on unless we have a contract from DOE.

8 We are working -- some of these advanced
9 reactors are very unique fuels. We are working to
10 establish whether we can accept them. We're
11 working with other countries who have deployed
12 these reactors to learn from them to say we can
13 actually take the spent nuclear fuel.

14 Next slide, please. What is our plan?
15 We have planned to move the spent nuclear fuel
16 from the reactor sites to interim storage by rail,
17 and then from the interim storage facility to
18 geological disposal. At the moment the DOE EM
19 waste and naval waste we plan to ship it straight
20 to the repository when it's open.

21 Next slide, please. Believe or not this
22 is a good news story, the Atlas Railcar, the
23 safest railcar in the U.S. for transporting spent
24 nuclear fuel, we developed this in conjunction
25 with the Navy. You see the package there in the

1 middle of the picture here, that package actually
2 weighs about 480,000 pounds to transport about
3 15 tons of fuel. That was developed by DOE
4 Nuclear Energy. The buffer cars either aside of
5 that package were also developed by DOE Nuclear
6 Energy, and now being used by the Navy. As they
7 transport nuclear fuel, they use our buffer car.

8 The car in the back is the security car.
9 It's designed by the Navy, and we've adopted it.
10 This is a great collaboration between DOE Nuclear
11 Energy and naval reactors. Last week the Atlas
12 Railcar was certified by the American Railroad
13 Association. It's ready to go.

14 This railcar is instrumented. We monitor
15 every single part of this railcar. It's the
16 safest railcar for moving spent nuclear fuel, so
17 we're ready.

18 Next slide, please. So what we're going
19 to do with this railcar? Sitting at North Anna in
20 North Virginia is what's called the High Burn-Up
21 Demo Cask. This cask is a cask of 15 and a half
22 tons of fuel, the cask is instrumented collecting
23 data to show that nothing is happening to that
24 fuel in storage.

25 Currently over 60 of the current

1 operating fleet point to this cask to say that dry
2 storage is good; nothing is happening, right. We
3 need to move that cask in 2027. We need to move
4 it, we need to open it, and we need to collect
5 data to satisfy the next NRC, so the Nuclear
6 Regulatory Commission Toll Gate is 2038. We have
7 to move it in order to support the current fleet.
8 We are currently working on where to move the
9 cask, do all the analysis. We hope to be able to
10 announce where we're moving the cask sometime this
11 summer.

12 So in 2027 the DOE is going to try to
13 move 15 and a half tons of spent nuclear fuel from
14 the reactor site to a new home. So we're starting
15 to make progress. We are supported by the entire
16 current operating fleet is supporting this
17 project.

18 Next slide, please. Storage Research and
19 Development. We realize that members of the
20 public, communities are worried about fuel being
21 stored at the site. Part of my program is doing
22 R&D to look at issues that people are worried
23 about. We spent tens of millions of dollars
24 looking at the potential for the canisters
25 cracking. We believe we have enough data to say

1 that all the inland sites are good.

2 We are working to collect the data, put
3 the package together for NRC to say that the
4 period of inspection could be increased for the
5 inland sites.

6 So what about the marine sites? What can
7 we do? We are looking at technology that can be
8 deployed on the canisters and it's always on.
9 It's always watching the canister. It's called
10 Guided Wave Technology. It's used by the industry
11 to monitor pipelines. What happens is it sends
12 pulse of energy through the material, and it acts
13 like sonar. If there's any defects or weld or
14 anything, waves get reflected back, and you can
15 monitor in real time what is happening in that
16 canister. Always on, always watching. You can
17 see if a pit starts to form, you can monitor that
18 pit over years. If a crack starts to form, you
19 can monitor that crack forming over years.

20 We can get out ahead of any issues
21 potentially happening on these canisters. We have
22 the repair technology. We can repair it long
23 before we get through wall cracking. This is just
24 one example of what we're trying to do in the R&D
25 program.

1 Next slide, please. As we get ready to
2 move spent nuclear fuel the -- maybe I should have
3 said this right at the beginning -- the only thing
4 that is stopping us is public trust and political
5 will to actually do it. Representative Levin
6 supports us tremendously in what he's trying to
7 do.

8 The public trust is really, really
9 important for moving spent nuclear fuel. We
10 intend to do a large package performance
11 demonstration. We're going to come out with a
12 request for information. Anybody can write into
13 us and say, we want to see this package crash into
14 an abutment of a bridge, we want to see you drop
15 it, we want to see you drop it in a lake, we want
16 to see you throw dead chickens at it, because
17 we're worried about dead chickens hitting the
18 canisters. Whatever people are worried about we
19 will try and do in this package performance
20 demonstration to show that the canisters are
21 robust and nothing is going to happen to them. We
22 expect to come out with that request for
23 information sometime this summer.

24 I encourage you all to write in say what
25 you're worried about. If you're worried about

1 transportation, write in and tell us, and we'll
2 try to incorporate that into what we're doing.

3 Next slide, please. Consolidate and
4 interim storage. The federal government has to
5 take title to the spent nuclear fuel. We are
6 being sued \$800 million a year for not picking up
7 the fuel. The only way to stop that liability is
8 to take title to the fuel. In May of this year --
9 we are following -- I should say we are following
10 a very formal DOE project management process for
11 designing this project.

12 In May of this year we passed what was
13 called Critical Decision Zero. We are now a real
14 project in DOE's eyes. We can now apply the line
15 item funding against this project. Okay. We're
16 heading towards trying to build the facility, have
17 it operational, but that's in the late 2030s. I'm
18 going to move some fuel in 2027, hopefully start
19 to move large quantities of fuel in late 2030s.

20 Remember, when we start moving fuel,
21 we'll be moving 3,000 tons of fuel a year. We're
22 going to rapidly move fuel. The facility has been
23 sized to take the fuel from shutdown reactor
24 sites, all 20 of them. That's what the facility
25 has been designed for. 3,000 tons a year of fuel

1 can be move to this facility.

2 Between 2027 and 2038 is a long time.
3 How do I maintain public trust, capability,
4 everything I need to really get going? The Blue
5 Ribbon Commission actually recommended that we
6 consider moving between shutdown reactor sites. I
7 want to explore that.

8 Is there potentially a shutdown site that
9 would be willing to take fuel from another
10 shutdown site? What do they want to do it? Are
11 we looking for quarter of million dollars per year
12 per canister, half a million dollars per year per
13 canister? I don't know. I'm not authorized to do
14 it, but I want to explore this option.

15 Why should the federal government do
16 this? At the moment my facility, all the funding
17 is hockey-sticked towards the end. I'll be
18 requesting a lot of money from congress the last
19 few years of the project. If I can ship some of
20 that to the left where I start to build the
21 infrastructure for trains, everything I need to
22 move the fuel, and then start to move the fuel, I
23 build public trust, I build capability, I build
24 experience. Instead of having a slow ramp-up of
25 fuel into my interim storage facility, at the

1 moment we plan to ship 500 tons a year, 1,000 tons
2 a year, 1500 tons a year, maybe I can move
3 2,000 tons a year of fuel.

4 Remember, every year I don't do anything,
5 I get sued \$800 million. So if I have to spend a
6 few tens of millions or a hundred million dollars
7 for a community to take fuel, I can potentially
8 save a lot of money overall if I look at the big
9 picture. We're not asking anybody to do it, but
10 we want to explore it.

11 Next slide, please. What are we doing?
12 The orange dots are the shutdown reactor sites,
13 the 20 shutdown reactor sites that I said. As DOE
14 we are funding projects with the universities.
15 It's called the Nuclear Energy University Program.
16 We fund about 200 to \$240 million, and we research
17 every year. Part of that comes to my program,
18 NEU, Nuclear Energy University.

19 We will reach out to the universities to
20 do more consent-based siting type work, more work
21 which is directly relevant to what our program is
22 moving forward. We would be interested in some of
23 the California universities working with the
24 shutdown reactor sites to really hear what your
25 concerns and worries are so your message is

1 clearly fed into our plans as we move forward.

2 Next slide, please. Consent-based
3 siting. This is the location of all -- we
4 currently have 12 consortia out talking about
5 consent-based siting. We're not trying to sign
6 anything, we're not trying to build anything.
7 What we're trying to do is build public awareness
8 at this point in time. We want this to be a part
9 of a discussion. We want this to be part of a
10 narrative.

11 These 12 consortia are out talking to
12 everybody they can talk to. When I took over the
13 program I realized that we did not have good
14 tribal representation in the consortia. We are
15 rapidly trying to award a new project through an
16 existing contract vehicle to bring tribal
17 representation into the consortia. We hope to
18 award that contract sometime later this month,
19 early next month.

20 Next slide, please. So what are the
21 consortia doing? They're out there talking. On
22 our website is this graphic. We update it every
23 month. People can see how many meetings they've
24 had, how many people they've touched. Also, in
25 the bottom is two schedules. The one on the

1 right, that's right, is where the consortia are.
2 The consortia started nine months ago. They
3 finish next year, 2025, 18 months to two years
4 after award they start to stop their mission. The
5 schedule on the left is where DOE is. So we are
6 currently developing the screening criteria for a
7 future interim storage facility. What hazards do
8 we need to stay clear of?

9 At some point soon when we're allowed to,
10 we will go out for call for volunteers. So we
11 will look for host communities to come forward.
12 We're not asking them to take the fuel, we're
13 asking them to enter into a dialog with us to talk
14 about what it will mean to take the fuel. That's
15 what we're looking to do. No commitment from the
16 community, no commitment from us to send the fuel,
17 but we want to be able to have that dialog with
18 communities.

19 How many sites do I think we really need?
20 By sitting down having a glass of wine the other
21 night, I think we need five sites, not just one.
22 I think we need five sites in the U.S. to be
23 interim storage facilities as we move forward with
24 the deep geological repository.

25 Next slide, please. Repository program.

1 Everything else is moving. The repository program
2 is stuck. I want to consider all options
3 available to me and to the Nuclear Waste Policy
4 Act. I will continue to support R&D. We do a lot
5 of international R&D. I can leverage my dollars
6 into a lot of dollars by supporting the
7 international R&D.

8 How do I build capability. Remember,
9 2010 was a long time ago. A lot of our expertise
10 has gone away. I've been talking to the other
11 countries that have repository programs and asking
12 them will they take my engineers, my scientists,
13 so they can actually be embedded in those programs
14 to actually learn what's happening.

15 Can they learn from the early
16 consent-based siting that's going on? Can they
17 learn from programs that actually near the end and
18 are about to start placing waste in two years'
19 time? If I can do that, I can bring that
20 capability back to the U.S. to actually start to
21 jump start our program. I will support U.S.
22 industry. U.S. industry is supporting these other
23 countries building repositories. What can I do to
24 support those industries so I can bring that
25 capability back to us so I can start this program

1 moving forward?

2 I have to consider how to collaborate
3 with DOE environmental management. They actually
4 operate a deep geological repository at the waste
5 isolation pilot plan in New Mexico. It's been
6 operating for 25 years. It's just got a 15-year
7 extension. Nobody ever talks about it, nobody
8 ever worries about it. How can my program
9 collaborate with DOE EM moving forward?

10 Next slide, please. Opportunities, I'm
11 going to make slow but steady progress to build
12 public and political trust in the program again.
13 I have to have strong engagement with tribal
14 representatives, I have to engage with multiple
15 stakeholders moving forward, it has to be
16 controlled, it has to be consistent. If I start
17 engagement, I have to be able to come back and do
18 that engagement. I have to seek input to
19 decisions where possible.

20 So, for example, the design of the
21 interim storage facility that my engineers have
22 designed, it's safe, it's fit for purpose, but
23 it's ugly. It's a parking lot that used spent
24 nuclear fuel canisters. What do people want to
25 see? If they're going to host it in their

1 community, do they want it in a building? Do they
2 want the building to be a blue building? A red
3 building? Do they want it to be below grade?
4 Above grade? What does the community want? We
5 have to have that input.

6 What's the socioeconomic impact to the
7 community? How many jobs will it create? What
8 impact will it have to sustain? We don't have
9 that information. We will this summer release
10 scopes of work. The business schools will provide
11 us with that information.

12 What I want is a simple vision that
13 everybody can understand. We're moving, we're
14 making progress. Everybody can see it. Members
15 of the public can see it. Congress can see it.
16 If I don't do my job, I can get fired. If
17 congress doesn't fund me, can you shout at
18 congress. We got a simple program, a simple
19 vision to move forward. At the right time --
20 these are lawyer words by the way -- at the right
21 time we have to consider establishing a dedicated
22 office for the management of spent nuclear fuel
23 and high-level waste.

24 As I said, DOE EM is a great
25 organization, but it's a research organization. I

1 need to get back to being an engineer in an
2 organization to succeed.

3 Next slide, please. My risks. As an
4 engineer, what are my risks? My number one risk
5 is communication. People want to see DOE, they
6 don't want to our subcontractors, they don't want
7 to see national labs, they want to press our belly
8 button and be able to talk to us.

9 I have 24 people. All the things we just
10 talked about, I have 24 federal staff.

11 Schedule slip, in the last ten years we
12 have slipped 17 years. Every year is
13 \$800 million. We have a risk of slipping
14 significantly again unless we can keep momentum of
15 the funding going to the program.

16 I also want to clearly explain the
17 schedule we're on. I'm going to use round numbers
18 here, forgive me, if I open an interim facility in
19 2040, the first interim storage facility and I
20 have \$140,000 tons of fuel, if I move 3,000 tons a
21 year, it's going to take me 50 years to move the
22 fuel to interim storage.

23 Now I'm in 2090, a repository program
24 typically starts -- it takes 50 years from the
25 start of a repository program through to open a

1 repository program. I'm not doing anything on
2 repositories at the moment. Once they have a
3 repository open, 50 years to move the spent
4 nuclear fuel, I don't know how long it's going to
5 take me to move the DOE high-level waste, the Navy
6 waste, everything, and then the repository has to
7 stay open for a hundred years. We're out in
8 probably 2300 before the repository is closed.
9 This is a multigenerational project. My
10 grandchildren born last year will be 80 by the
11 time I get the fuel to interim storage. That's
12 the schedule we're on.

13 When to amend the Nuclear Waste Policy
14 Act? The existing authorization allows me to do
15 what I'm doing, but we rapidly have to change it
16 to be able to move forward rapidly. I'm going to
17 make incremental steps, build trust, and get this
18 program moving.

19 With that, I'm going to shut up and
20 answer any questions. Thank you.

21 CHAIRMAN DAN STETSON: Thank you, Paul.

22 I'm going to turn to our CEP members, a
23 number of them have questions. I'm going to start
24 with asking you, Paul, why at this point in your
25 career have you decided to tackle this monumental

1 challenge?

2 PAUL MURRAY: I guess I was bored.
3 Forty-four years, last position was senior vice
4 president of CTO of a large company, and I've been
5 watching this problem for a long time, and the job
6 got posted. I had actually resigned from my
7 previous company, because I just had enough, I got
8 offered several jobs, I applied for this one, and
9 I got it.

10 CHAIRMAN DAN STETSON: Thank you.

11 I can't remember anyone receiving an
12 applause after their presentation in the ten years
13 that I've been here, so I think that says a lot
14 right there.

15 Let me turn to John Taylor who has a
16 question.

17 HON. JOHN TAYLOR: Paul, I had a question
18 about the slide 21 which is the high burn-up
19 demonstration cask. Could you explain a little
20 bit more about what that is, and what you expect
21 to find out exploring that.

22 PAUL MURRAY: The Nuclear Regulatory
23 Commission licenses dry storage systems. So
24 nuclear fuel when it's in the reactor, it's either
25 low burn-up or high burn-up. When we first

1 started nuclear energy all fuel was low burn-up.
2 We didn't get all the energy out that we could
3 have. So NRC licensed low burn-up dry storage for
4 60 years. Everything is good for 60 years. High
5 burn-up, NRC said we'll give you a license for
6 20 years. So all fuel coming out of the reactors
7 now is high burn-up. Every single reactor we use
8 is high burn-up fuel.

9 After 20 years of dry storage, there's no
10 data to say everything is good with the fuel in
11 dry storage. Industry recognized this, and so
12 they designed this experiment, and they
13 instrumented this cask, loaded it with high
14 burn-up fuel, and it's been sitting on the pad in
15 North Anna basically generating data to say
16 nothing is happening, everything is good, the 15
17 and a half tons of fuel.

18 The next NRC Toll Gate requires that cask
19 be opened dry, the fuel to be removed, examined,
20 and put back together and stuck in the pad again.
21 So we will move that cask in 2027. It's the only
22 window we have at North Anna to do. It has to be
23 2027.

24 HON. JOHN TAYLOR: And by doing that
25 we're going to be able to see the contents --

1 PAUL MURRAY: You're going --

2 HON. JOHN TAYLOR: -- and how stable it
3 is and whatever is happening?

4 PAUL MURRAY: We're going to remove the
5 fuel, and pull individual rods out of fuel
6 assemblies and do post-radiation examination on
7 each of those rods just to show that nothing has
8 happened.

9 JOHN TAYLOR: Thank you.

10 CHAIRMAN DAN STETSON: Do you need a hot
11 cell to do that?

12 PAUL MURRAY: Yes, we do. We need a hot
13 cell. It's not going to be cheap to do but
14 remember, 60 of the current fleet rely on this
15 cask. We have to do it.

16 CHAIRMAN DAN STETSON: Garry?

17 GARRY BROWN: Thank you.

18 First of all, I want to thank you for
19 your presentation and joining us. It is extremely
20 informative.

21 About a decade ago when the environmental
22 community was asked to support consolidated
23 interim storage versus push for a repository, our
24 big discussion was if we support and go down this
25 road with consolidated interim storage, does that

1 let the federal government off the hook in coming
2 up with a repository? A decade later you're kind
3 of saying nothing has happened.

4 Is that scenario becoming a reality, or
5 are we going to eventually have a repository? I
6 know your political crystal ball is probably
7 better than ours.

8 PAUL MURRAY: Let me answer it this way,
9 every other western country has nuclear power
10 apart from the U.S. and the Ukraine has a deep
11 geological repository program. Everybody is
12 aiming for 2050 to have their repositories open,
13 everybody. In the 1950s the Academy of Science
14 recommended we have a repository program. We have
15 to have a repository program.

16 Some people say okay, what happens if we
17 reprocess, I reprocessed a lot of my life, you
18 still need a repository to take the high-level
19 waste. People talk about they're going to build a
20 fancy machine to transmutate all the waste. Okay,
21 I'll collect it in one place to burn in my interim
22 storage facility. If they build it, we can give
23 it to them. If they don't build it, I can put it
24 in my repository, I can keep the repository open
25 for a hundred years, so if anybody builds a fancy

1 machine in the next 250 years, they can come and
2 collect the spent nuclear fuel from the
3 repository.

4 GARRY BROWN: Thank you.

5 CHAIRMAN DAN STETSON: Captain Mel
6 Vernon.

7 CAPTAIN MEL VERNON: Yes. Thank you,
8 Paul, for sharing. We've had a couple meetings
9 here a couple days, and I'm really thankful for
10 you being the person here that we're connecting
11 with. I see the strong engagement with tribal
12 representatives. I know there's tribal -- all the
13 nuclear power plants are on someone's tribal land,
14 and could you elaborate a little bit on how we
15 could reconnect and connect with the tribal
16 people.

17 PAUL MURRAY: Yes. So my program
18 actually funds a large portion of a Trim Tech
19 program, so we engage with 54 of the tribal
20 nations right now. So I've met with Trim Tech
21 twice. I deliberately did not meet with them for
22 a few months, because I didn't want to say
23 platitudes to them. I wanted to show actual
24 progress in what we're doing. Now I've met with
25 them twice, they tell me clearly their position, I

1 listen, I respond. I think you heard from Jimmy
2 John yesterday.

3 Captain MEL VERNON: I did, and I
4 appreciate that. And I like to see the talks
5 moving forward and the way it is shared with the
6 truth of what could happen and acknowledging the
7 people, the first people of this nation to change
8 some of the history that's been happening along
9 the way for a brighter future.

10 PAUL MURRAY: Once again, this is a
11 multigenerational program that's going to take us
12 a long time to get to the final solution.
13 Everybody has got to have a voice in what we do.
14 Everybody has got to be heard as we move forward.

15 CAPTAIN MEL VERNON: Thank you.

16 CHAIRMAN DAN STETSON: Victor.

17 HON. VICTOR CABRAL: One thing that
18 wasn't mentioned, obviously in most of these
19 projects, all of these projects cost money. Do
20 you have all the money that you need for these or
21 maybe you can tell us a little bit about that?

22 PAUL MURRAY: Public trust and political
23 trust, after a long time being in an R&D program,
24 I've got to build that trust up a hill by making
25 slow but steady progress. So I've expressed the

1 fact that as we -- I joined DOE a long time in the
2 budget cycle. The '24 budget was just about to
3 come out, '25 budget have been submitted. The '26
4 budget is the first time I can really start to
5 request the money I need. I'm not going to ask
6 for unGodly amounts of money. I will only ask for
7 money if I can make progress and people can see me
8 making progress. That's only way I can start to
9 build trust.

10 At the end the day the repository program
11 is going to be an expensive endeavor. I slowly
12 need to be able to get access to the interest of a
13 waste fund. One and half billion dollars a year
14 interest is what I'm going to go after eventually.
15 To begin with, I need incremental increases to my
16 program so I can actually start to change
17 direction so I can deliver on what I'm talking
18 about here.

19 Can I just say, put it into perspective,
20 we get just over \$100 million a year. DOE nuclear
21 energy gives over \$200 million a year to the
22 university programs. We give \$100 million a year
23 for training of people close to reactor sites at
24 the moment.

25 So the budget is significant but it's not

1 serious. We need to have a serious budget to
2 actually start to move forward. But it's got to
3 be in a controlled way. Okay?

4 CHAIRMAN DAN STETSON: Paul, we have 123
5 canisters here, do any of them need to be
6 repackaged before they can be shipped out of here?

7 PAUL MURRAY: No. All ready to be
8 shipped.

9 CHAIRMAN DAN STETSON: Okay. Another
10 question, you talked a little bit -- we talk at
11 some of our meetings about the robust system here
12 for the defense-in-depth, and you talked about
13 your project that may bring an additional layer to
14 that. Is that something that we might anticipate
15 coming here to San Onofre?

16 PAUL MURRAY: We're going to develop the
17 technology, we're going to try and deploy it
18 somewhere. It's up to the sites whether they
19 deploy it or not.

20 CHAIRMAN DAN STETSON: Okay.

21 PAUL MURRAY: Not a requirement but when
22 I build my interim storage site, we will deploy
23 the technology. Remember, 50 years to move the
24 fuel there, 50 years to move it off, I'm going to
25 have to put a lot of bells and whistles on those

1 canisters for DOE's perspective the long term
2 storage.

3 CHAIRMAN DAN STETSON: I think there's a
4 little confusion in terms of EM and DOE, is that a
5 different department, or what is that?

6 PAUL MURRAY: Yeah, so DOE Nuclear Energy
7 is responsible for all research to support nuclear
8 energy. DOE Environmental Management is a much
9 bigger organization, it's over \$6 billion a year,
10 its main job is to cleanup all the legacy weapon
11 sites in the U.S. and it typically spends
12 \$600 billion a year.

13 CHAIRMAN DAN STETSON: Okay. John?

14 HON. JOHN TAYLOR: Paul, you had
15 mentioned a little bit about increased monitoring.
16 Are you talking about monitoring every single
17 cask? What were your thoughts and what would you
18 be monitoring for?

19 PAUL MURRAY: We have to receive the
20 robustness of the technology. Okay, so let's get
21 it working on one system first, and then we can
22 see if it's applicable across all of them. I
23 really challenge -- I'm a mechanical engineer, not
24 nuclear, I'm mechanical. I like to think I'm
25 quite practical. So I've challenged them, I said

1 stop over-thinking this. I was always taught keep
2 it simple, stupid.

3 I told them when we pick the cask up --
4 many years ago I served in an apprenticeship and
5 part of that apprenticeship is a foundry and we
6 used to pick up large cask items and ring it like
7 a bell, and we can see if there's a crack in it.
8 One of the things I've challenged the National
9 Labs is when we come to pick up the canisters, how
10 do we ring them like a bell to see if there's
11 anything wrong with them.

12 It's constant defense-in-depth is what
13 we're looking for here. We got to have confidence
14 to be able to move these canisters.

15 JOHN TAYLOR: Thanks.

16 CHAIRMAN DAN STETSON: Another question,
17 if I may, Paul, how can we help? How can we help
18 as individuals in the community, and how can we
19 help as the bodies here in the CEP and the Spent
20 Fuel Solutions?

21 PAUL MURRAY: So as communities come
22 forward, if we release an RFI and ask what are you
23 worried about, respond against it. If we release
24 an RFI, just come forward, you know, tell us what
25 is worrying you, and we'll try to address it.

1 I hope I laid out a really simple vision
2 and mission for where we're going. Judge me on
3 it. If I don't deliver, talk to Representative
4 Levin and get me fired. Get somebody else in here
5 that can do the job. We have to make progress,
6 okay, that's what I'd ask. Support on the hill is
7 always helpful as well.

8 CHAIRMAN DAN STETSON: Paul, when do you
9 think you might be able to come visit us again?

10 PAUL MURRAY: I have limited travel funds
11 at the moment, my program which restricts us to be
12 able to go out and talk to people. I need to fix
13 that. Communication is everything. You don't
14 want to see one of my subcontractors sitting here.
15 You want to see somebody from DOE sitting here and
16 that talking to you. I'm working on that.

17 CHAIRMAN DAN STETSON: Well said.

18 Unless there are any other questions from
19 any of our fellow CEP members, I don't see any
20 online from our CEP members as well, so once
21 again, on behalf of the community and CEP, Spent
22 Fuel Solutions, thank you, Paul, for coming and
23 presenting this evening. We may have some
24 questions from the audience here, so we appreciate
25 you hanging out a little bit longer.

1 So now we're going to get set up for the
2 public comment and facilitate a public dialog, you
3 can see the directions are here for public
4 comment. The CEP public comment form link is
5 available to submit a question or to sign up to
6 speak online, and the CEP comment question cards,
7 again, are located at the entrance for those
8 wishing to join us in person.

9 The names of the individuals who sign up
10 to speak, will be displayed on the slide, and
11 we'll call your name when it's your turn to speak.
12 Again, you each have three minutes, and we'll have
13 the countdown timer on the screen, we'll have a
14 full hour dedicated to public comment and
15 questions, and as before, after public comments,
16 Victor and Martha will facilitate the public
17 dialog.

18 So we, once again, I think we had a
19 really robust discussion. We're going to take a
20 ten-minute break right now, and then we're going
21 to come back for facilitated public discussion.

22 (Recess taken from 6:35 until 6:45.)

23 CHAIRMAN DAN STETSON: I'd like to
24 welcome everybody back and just to touch on the
25 agenda real quickly, we had the break and so the

1 next couple things on the agenda we're going to do
2 some CEP agenda updates, and then I'll be doing
3 those, and then we're going to talk a little bit
4 about the SONGS decommissioning, the big picture,
5 the dismantlement, and then we'll have the public
6 comment period and facilitated dialog.

7 First, we're going to move onto the CEP
8 community update.

9 Next slide, please. In addition to these
10 regularly quarterly public meetings, there's quite
11 a number of meetings that go on in advance and
12 throughout the year in preparation of these. A
13 couple times a year all the members of the CEP get
14 together either in person or virtually to talk
15 about how we're doing and what direction we should
16 be heading in.

17 During that, on the April -- we had one
18 on April 30th, and it was a member consultation
19 meeting. I think it went very well. The members
20 were actively engaged in the discussion, and they
21 asked questions, they shared insights, offered
22 recommendations for some of our future meetings.
23 If you recall the purpose of our biannual member
24 meeting is to convene folks for their feedback,
25 provide updates and for the agenda planning.

1 When we asked CEP members for what they
2 were hearing out in the community, we heard a
3 number of different things. We heard that in many
4 respects many members felt that they were hearing
5 that there was not the high level of concern that
6 we might have heard before about the safety of the
7 canisters themselves, so I think that overall that
8 was a good sign, and they thought there was a
9 level of trust starting to develop.

10 Some of the stakeholders had expressed
11 concerns about the rail line in terms -- it's been
12 in the news a lot, and that's something Victor has
13 been tackling with the City of San Clemente and
14 wondering about what the potential impact there
15 could be in terms of continuing the
16 decommissioning process itself. We plan to have
17 that in one of our future meetings.

18 Other public members related to the spent
19 fuel storage, and there's a lot of information
20 that's out there, not all of it is accurate. We
21 want to, as much as possible, make sure that we
22 let the data speak, and make sure that the
23 information that is going out is a hundred percent
24 accurate. Instead of adding adjectives, we want
25 to say, well, this is what the data is. It's

1 either this, or whatever may be, using the actual
2 numbers for the data.

3 Suggestions for the future also included
4 talking about the rail line infrastructure, the
5 status of Yucca Mountain, we talked a little about
6 that today, the reprocessing of spent fuel, and
7 here's another one that came up, and we'll
8 certainly be talking about this, Michelle, this is
9 going to be on your table, so we're going to be
10 asking you for help on that, and that is for an
11 emergency plan update with offsite support
12 agencies.

13 So that will be coming up as well. Once
14 again, members of the community if you have other
15 topics that you would like to put on the agenda,
16 reach out to us, and we'll certainly bring them
17 back for discussion and hopefully have them we can
18 bring to one of our meetings for discussion.

19 And Paul is certainly open for any
20 questions that you might have for him.

21 If we can go onto the next slide, please.
22 When the panel was created, it was really -- they
23 put together a charter, and the charter really all
24 the things that you see here. The things that
25 really give us directions of who we are, what

1 we're doing and the whole plans, well that was ten
2 years ago, and it's time now that many of those
3 are revisited and updated. For instance, like the
4 term limits, the term limits were originally a
5 couple of years, so some of us have been here for
6 ten years. So rather than kick us off, I think
7 they decided that they needed to revisit those and
8 some of them us they decided to maybe keep us
9 around a little bit.

10 Anyway, these are a different things that
11 the charter has reviewed and has been updated.
12 Both the current charter and updated charter are
13 available on site for you to take a look at. You
14 can see some of the different things here that
15 have gone through. Really all it's doing is
16 updating it. We have ten years of experience and
17 what we can do to make the meetings more
18 meaningful and successful. I think those are all
19 the things that we have.

20 Any other members here want to comment on
21 our community update meeting? Victor?

22 VICTOR CABRAL: I will only say it was on
23 your list, you mentioned shake table, or are you
24 doing that separately?

25 CHAIRMAN DAN STETSON: Victor, why don't

1 you do that.

2 VICTOR CABRAL: Paul invited the
3 leadership of this committee to go see a
4 demonstration, one of the other components to show
5 what they're doing and show great confidence in
6 public that canisters can withstand the
7 earthquake. I'm not going to get into detail,
8 Paul, you're the expert in that area, but it is
9 one other step in the this process.

10 We were able to see that demonstration
11 yesterday morning, and it proved valuable. That's
12 one other small step forward.

13 CHAIRMAN DAN STETSON: So in this
14 instance, Victor has opened that canister, Paul.
15 We're a couple minutes early, so go ahead and tell
16 us what happened yesterday.

17 PAUL MURRAY: There were some spare spent
18 nuclear fuel canisters here at SONGS. So we took
19 one of them to Sandia National Lab, and we
20 modified it, and we loaded it with dummy fuel
21 assemblies, novice surrogate fuel assembly, and
22 then we put 28 weights in the right shape and size
23 as a spent nuclear fuel assembly. We put a shield
24 inside of it, and we put it on the shaker table at
25 the University of San Diego, and we -- our run-ins

1 similar to earthquakes that happen in the U.S. We
2 will run 40 simulations of typical earthquakes
3 that happened, the canister is instrumented, the
4 fuel assemblies are instrumented, the top is open,
5 high speed cameras are looking in, and we're
6 watching what happens.

7 The movement is for vertical system,
8 we'll then change over to the horizontal system,
9 do exactly the same with the horizontal system.
10 This is a huge heavy weight as simulated in the
11 spent fuel storage system, and I got to admit, CEP
12 guests were very polite after the earthquake. I
13 have to admit it was a bit underwhelming. We went
14 through all the sequence and nothing happened.

15 We will do this to help build public
16 confidence that these systems are safe in an
17 earthquake. The same time the industry, the cask
18 vendors, the fuel vendors who actually design and
19 build the fuel, they're working together to refine
20 the models. We're given them the task order,
21 we're working together, we're going to come up
22 with better designs, better safety margins for
23 these systems moving forward.

24 CHAIRMAN DAN STETSON: Thank you, Paul.
25 As an alumnus of UC San Diego where the test took

1 place and it's part of their engineering
2 department, so I have to give a shout out to our
3 UCs down there.

4 I would like to move down to the next
5 slide, please. Thank you very much, by the way,
6 Paul. Yes, it was kind of boring, which was good.
7 We witnessed it, and it went on for about 45
8 second, and afterwards it was like, okay. But I
9 have to tell you, after the test itself, we got to
10 go under and see all the engineering, all the
11 devices that are there to -- that go together to
12 make this I think it's the largest shake table,
13 certainly in the country, maybe in the world.
14 It's astonishing the technology that's in there so
15 it can move in all the different directions.

16 I think we all came away feeling much
17 better about the storage of the spent fuel.

18 Okay, enough of me. Now I'm going to
19 move to Fred. If you would like to take it from
20 here.

21 FRED BAILLY: Absolutely, thank you Dan.
22 If we move to the next slide, I'd like to start
23 with highlighting the principles that guide our
24 work starting with safety. Safety is first and
25 safety is what is it guiding all our actions at

1 the site, both radiological and industrial safety.
2 We remain focused at every step of the
3 decommissioning process. We go from an evolution
4 to the next. There are changes, there are new
5 risks that are evaluated and every single time we
6 put safety first in the way we look at the work
7 ahead of us.

8 Second principle is stewardship. We have
9 the experts that are dedicated to the
10 dismantlement, waste packaging, transportation and
11 protecting the environment. We're also stewards
12 for basically watching the spent fuel. We are
13 basically custodians until the DOE comes and pick
14 up the fuel. We are dedicated to storing it
15 safely. We continue to work and will continue to
16 update the community about our efforts to move the
17 fuel off site some day. That's why I mean today
18 is good to have you here, Paul, with your update
19 on the spent fuel.

20 The third one is engagement. We're
21 committed to openness in public meetings like this
22 one. We also have our website, and we also do a
23 lot of public tours. We hope those of you who
24 have participated in public tours got a chance to
25 share the experience with your friends and family.

1 We encourage people to come over and visit the
2 site. The last public tour that we had was on
3 June 1st. The next one is going to be on
4 June 22nd.

5 If we move to the next slide, three major
6 work streams: Above-ground structure dismantling.
7 We're over 60 percent complete on our
8 decommissioning program. And we're well on track
9 to finish the work of that phase by the end of
10 2028.

11 We're definitely safely managing spent
12 fuel on site. It remains stranded until DOE comes
13 and pick it up. And we'll continue to advocate
14 for offsite storage and disposal of spent fuel.

15 On the next slide a few resources. Our
16 website is a good source of information to stay
17 informed. There are quite a few videos of
18 dismantlement. You can also find information and
19 follow us on social media channels, and if you
20 want to take a closer look again, you're welcome
21 to join one of the public tours. You can request
22 such a tour on the website.

23 So with this, now I'd like to turn it
24 over to Jerry Stephenson, who is our ISFSI
25 engineering manager and can provide us with an

1 update on our dismantlement activities.

2 JERRY STEPHENSON: Thank you, Fred.

3 Next slide, please. This is the big
4 picture schedule with a lot of the large
5 milestones on it. You can see we've completed
6 one. I'll talk a little bit more about that on a
7 next slide. That's the reactor vessel internal.
8 Those are the components that live their life next
9 to the fuel and very radioactive. Then we're
10 removing the large components, that's like steam
11 generator, pressurizer, reactor pumps, the large
12 things that need to come out of containment before
13 we bring containment down.

14 Then we'll move into reactor vessel
15 segmentation, which is cutting up the reactor
16 vessel. The other one I'll point out here is the
17 containment dome demo. Notice that the
18 containment domes will start toward the end of
19 2025 and complete in 2027. That will be an end of
20 an era. That's the part you can see from the
21 freeway.

22 Next slide, please. Here's some major
23 activity I'm going to highlight. The GTCC, that's
24 Greater-Than-Class C waste, that's the reactor
25 vessel internal stuff, and the reactor vessel

1 internal cutup project, they recently completed.
2 That was a big challenging program, project. It's
3 great to have that behind us. That eliminated a
4 lot of risk from the project and put it behind us.
5 That's a big accomplishment. The aux building
6 demo, the auxiliary building, I'll show you a map
7 of that next slide, it will start next week, and
8 we'll be starting it to tear down the area of the
9 aux building that was the control room.

10 That will be -- that was heart of the
11 power plant and now it's going to be torn down.
12 We've removed both the pressurizers. Pressurizer
13 giant tea kettle. That is a containment they have
14 heaters in them so they have a steam bubble, and
15 they keep the reactor pressured to the exact
16 correct pressure. I have pictures of those coming
17 up. That will be very interesting.

18 Next slide, please. This is a map of the
19 site. All that black area of the structures are
20 gone. We removed a lot of structures. You can
21 see we're over halfway through structural removal.
22 The blue area is where we're actively doing demo
23 now. It looks like a small area, but there are
24 giant excavators out there with jackhammers and
25 chompers tearing apart steel and concrete. The

1 concrete in that area since it's right in front of
2 the control room was very well reenforced, a lot
3 of steel in it. It's probably half steel and half
4 concrete.

5 The yellow area is the auxiliary
6 building. We'll be tearing into that next week.
7 It shows that it's hazmat in progress, but it's
8 actually, I called it started because we knocked a
9 hole in the wall and pulled out a bunch of cable,
10 so that work is started in limited areas, and that
11 will be progressing on.

12 Next slide, please. So this is some --
13 this is the completion of the last canister of
14 GTCC. So picture on the left is a liner, so we
15 put the big pieces of Greater-Than-Class C waste
16 into this liner, which is a very heavy stainless
17 steel liner, and it's being lifted there by an
18 overhead crane, and it's about to be lowered into
19 a canister, which sets inside a cask. So three
20 layers there. A cask is what we use to transport
21 it. In storage it will be the liner inside the
22 canister inside the AHSM.

23 On the right we have the welding machine
24 on top of the canister welding the lid on. That
25 white box, multiple white boxes is welding a

1 machine. It rotates 360 as it puts in the weld.
2 The guy in the orange protective clothing, that's
3 the welder. The orange clothes are fire
4 resistant, and welders are required to wear fire
5 resistant protective clothing.

6 The guy in the yellow you can tell he's a
7 reactor -- I mean an RP, radiation protection,
8 technician because that sling around his shoulder
9 there is holding his meter, which is on the other
10 side of him.

11 Next slide, please. These are three
12 pictures of the insertion of the final canister
13 GTCC. On the left there is a crane removing the
14 lid from the cask, or it's holding the lid, I
15 guess it's just removed it. The cask is there
16 behind the lid lined up to insert the fuel or the
17 GTCC into the storage location.

18 The center picture is the shiny cylinder
19 there. That's the hydraulic ram that pushes it
20 into the storage location. That ram is extended,
21 so it's pushing the canister into the storage
22 location.

23 And third picture of the canister is now
24 in the storage location. The yellow thing is a
25 special lift rig for the door. These guys are

1 putting door on. Now, there is a crane off to the
2 side. They aren't lifting it with their bare
3 hands. That's kind of a ceremonial last GTCC
4 effort right there.

5 Next picture. Okay. This is a steam
6 generator cut up. So those vertical tubes there,
7 those are the tube bundle through which is the
8 primary coolant flowed when the steamed generator
9 was in service heating the water that created the
10 steam that turned the turbine. So we're cutting
11 those up into giant chunks. That's the lift rig
12 on top of them, and that batch of tubes is being
13 lifted out and put into a shipping container.

14 Next slide. Okay. So this is more photo
15 of demolition. Remember, I showed you that
16 picture that map with the blue area where we're
17 currently going to active demolition. That's
18 what's on the right. All the steel that's shown
19 there was taken down in the last few days, and
20 that white concrete at the bottom half of that
21 slide, that's what they're chiseling away now and
22 finding a very large amount of steel reinforcing
23 that concrete there.

24 Next slide. And somebody reported that
25 we've removed both pressurizers from the units.

1 The blue thing is the pressurizer. That's paint
2 on it that ensures there's no loose contamination
3 on it as we take it out of containment. It's like
4 I said, a giant tea pot. It's very tall.

5 On the right is a down ender. That big
6 orange machine there takes it from the vertical
7 and lowers it to the horizontal. The top half of
8 the center picture is at 45 degrees moving down,
9 and the bottom half of the picture is now
10 horizontal. In the third picture you can see how
11 large it is. There it is horizontal on a heavy
12 transport to be moved around site.

13 That ends my presentation.

14 CHAIRMAN DAN STETSON: Jerry, where is
15 that go to be shipped to?

16 JERRY STEPHENSON: That will go to Utah.

17 CHAIRMAN DAN STETSON: Clive, Utah.

18 JERRY STEPHENSON: Class A waste.

19 CHAIRMAN DAN STETSON: That thing is
20 huge.

21 Martha, what do you think? Were those
22 enough pictures for you?

23 MARTHA McNICHOLAS: I like the actual
24 demolition ones better. I'm sorry if there wasn't
25 any video of things coming down, but I appreciate

1 the pictures.

2 JERRY STEPHENSON: The big yellow aux
3 building that you saw in the one slide, it will be
4 coming down over the next few months, so we'll try
5 to do better next meeting.

6 MARTHA McNICHOLAS: Thank you.

7 CHAIRMAN DAN STETSON: Jerry, with
8 reference to discharges, are we still making
9 discharges, and what volume per month are doing
10 those now?

11 JERRY STEPHENSON: We haven't been making
12 any discharges yet that I'm aware of. I know we
13 do have a discharge scheduled week after next.
14 We're getting ready to make a discharge, and we'll
15 follow all the protocols associated with that.

16 CHAIRMAN DAN STETSON: We anticipate
17 having periodic discharges continuing?

18 JERRY STEPHENSON: Yes. We're getting
19 ready to process and discharge the first reactor
20 cavity.

21 CHAIRMAN DAN STETSON: Thank you very
22 much.

23 Looking to my colleagues, any additional
24 questions? If not, thank you very much, Jerry.

25 And now we're going to move and welcome

1 public comments and questions. We're going to
2 start with comments and questions with Paul Murray
3 so we can address them first. We're going to --
4 as I mentioned before, we're going to start with
5 people in the room who have a comment, and then
6 we'll go on to the folks who are participating
7 virtually.

8 Again, the CEP form link is shown on the
9 slide. If you wish to sign up or speak to submit
10 a question, names are listed on the slide here in
11 the speaker queue in the order received. After we
12 go through those that are making their
13 three-minute presentations, then Martha and Victor
14 will field the questions and direct them to the
15 appropriate person.

16 With that, I think we're ready to start
17 with the first one and Mr. Headrick, Gary, you are
18 up and Roy Perez is on deck.

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PUBLIC COMMENT

GARY HEADRICK: Thank you very much, and I appreciate being invited to the meeting earlier today to meet Paul Murray and discuss some of these issues and plans in advance.

You know, I'm really pleased to hear some of the directions about how important public trust is and political will is one of our bigger obstacles. I think you kind of -- you made it clear that your objective is really to alleviate concerns and address things we brought to your attention. I know you're new into a community, and I want to welcome you and thank you for your honesty, especially in terms of the timelines and realistic projections to how long this might take, because it's too easy to gloss over and have wishful thinking at place.

I do have a concern about your timeline on, the question and problem that we have in this community is that we understand the nuclear waste inside the canisters may be very fragile and as time goes by it gets more and more fragile and vulnerable, not just to outside the canister with

1 stress, corrosion, and cracking, but the clouding
2 and really understanding what's going on inside
3 the canisters, why you're doing the demonstration
4 project. But that's 2038, and we're concerned
5 that temporary thin canisters will not last that
6 long.

7 What we're proposing, actually, may be a
8 welcomed idea, because it would be much faster if
9 in our community if we decide that the nuclear
10 waste is going to have to stay in California to
11 alleviate some of the crossing borders and all the
12 obstacles that represent. We can use the time to
13 investigate one of our canisters right here if we
14 get a hot cell built and a place to store the
15 canisters if there's a problem with them. We need
16 a working facility that can identify problems much
17 sooner than 2038, and it's required by law that
18 we're able to open these nuclear canisters to see
19 the inside of them.

20 I don't have much time left. I wanted to
21 also commend you for taking on this job, and I
22 know you don't really intend to be able to stay
23 with it much past 2026 and 2027, and that's a big
24 challenge, and you also mentioned that you haven't
25 been given a serious budget, and we want to help

1 make sure you get what you need, but we also want
2 to be considered as a temporary interim site.

3 We don't want all the waste at San
4 Onofre, but somewhere above, higher than the ocean
5 and further away from the population but in
6 California so we can do this quickly and
7 officially. There's a lot of things to consider,
8 and as a mechanical engineer, I trust you're
9 looking at trying to solve problems, not just do
10 more R&D and I appreciate you being here.

11 CHAIRMAN DAN STETSON: Thank you, Gary.
12 And after Roy is Rudy Salazar.

13 ROY PEREZ: Thank you, Panel. Thank you
14 everyone and everyone online. My name is Roy
15 Perez, and I'm here with my partner Rudy Salazar.
16 We represent the Randsburg project. So I'm going
17 to let Rudy go into a little bit more of some
18 details about our project but just high level for
19 me, we are proposing the Randsburg initiative is
20 to create and move nuclear spent fuel canisters to
21 stay within California, in Randsburg, California.
22 We have 58 acres there.

23 We believe it's the most promising
24 geological formation. One, it accomplishes many
25 things, one with the moves to higher ground and as

1 I said, I'll let Rudy go into more detail, but it
2 also addresses and where my heart stands as a
3 marine corps veteran, born and raised in
4 California, I loved serving this country, but as
5 Mr. Murray said is one of the things building
6 public trust, building the political trust, and
7 one of the things I myself and Rudy, we're men of
8 action, and that's why many of you continue to see
9 us and continue to hear about us.

10 One of the things we know when it comes
11 to building trust, it is action. It's action
12 that's visible, action that's being seen, action
13 that you can hear, see, and be part of and
14 engaged, and so we believe that Randsburg
15 Initiative is an actionable item, a feasible item
16 that can lead. It is that next step forward. As
17 we all know, this is multiple generational, even
18 past my children that I have.

19 This is going to be a multigenerational
20 mission, but it is a mission that we can
21 accomplish, and it is a mission to take step by
22 step with proper action. And with that, it is
23 taking and exploring all options out there as we
24 currently have the national options in different
25 siting. With that, we are advocates of

1 consent-based siting. We happen to have and own
2 the property already.

3 It's almost in reverse, right, we've been
4 discussing about this and speaking with the
5 community already there in Randsburg. We
6 happen -- we with largest land owners there in
7 Randsburg, California but we happen to have this
8 promising geological formation. And so now we are
9 looking to partner with the DOE, with the public,
10 and really start taking actionable items day by
11 day, week by week, year by year, and it's going to
12 be century by century as well.

13 So thank you everyone for your time.
14 Appreciate it.

15 CHAIRMAN DAN STETSON: Thank you, Roy.
16 Rudy.

17 And after Rudy is Diane Edmonds.

18 RUDY SALAZAR: Hello. I'm Rudy Salazar,
19 and I am the owner of the 58 acres in Randsburg,
20 California. I didn't buy that property because of
21 the spent fuel. I bought it because the gold on
22 it. It does have all the noble metals on the
23 property. It's got five gold mines from the
24 1800s. It sits right next door to the Yellow
25 Aster Mine, which is the largest -- second largest

1 gold producer in California.

2 I passed out this -- we passed this
3 brochure and a couple flyers in here. If nobody
4 got this, make sure you get this before you leave.
5 In here it shows that we have our initiatives here
6 that is to move the 291 canisters in California
7 off of our coast to our property, and that
8 includes the 123 canisters here along with the 21
9 in the middle of Sacramento, and we believe that
10 our property is the most promising geological
11 formation for spent fuel. It's got zero water,
12 zero water table. I get that data from this
13 flyer, which is the package we put together. You
14 can see our property here it's circled in red.
15 There is absolutely no water on our property.

16 And it's also according to the Idaho
17 geological map here, it shows the crystalline rock
18 formations that are there, it covers that as well.
19 Also to not only on the geological side, it's such
20 a safe place to put spent fuel, by putting
21 California spent fuel there, we'll be taking the
22 burden off of the federal government -- or the
23 overall inventory of the spent fuel of the nation
24 that will allow Mr. Secretary Murray to do his
25 work even better, because it will give him less

1 pressure of California's spent fuel. That's one
2 of my talking points of these initiatives.

3 But another one too is just the jobs
4 alone. Right now we're in the midst of applying
5 for the 48C tax credit that goes through
6 Mr. Murray's office. This is, again, checking
7 another box. It's in the designated energy
8 communities. This community here could use the
9 jobs, not only just Randsburg, we're talking about
10 the surrounding communities: Adelanto,
11 Victorville, Barstow, Mojave, California City,
12 Ridgecrest, these are areas you go through, they
13 need these jobs. California could become the
14 world leader in how to handle spent fuel for the
15 future generations. This initiative that me and
16 Roy are beginning -- I'm a baby boomer, Roy is
17 from the millennium and on and on -- we have to
18 really look forward to passing this on.
19 California can become a leader in spent fuel
20 know-how, how to handle this, because obviously if
21 we're going to get to zero carbon in this country,
22 we have to firsthand our spent fuel. California
23 can be the leader and in the forefront as we are
24 on everything else to get this done.

25 With that, thank you. Make sure to get

1 my information.

2 CHAIRMAN DAN STETSON: Thank you Rudy.
3 Next up is Diane Edmonds.

4 After Diane then we have a couple folks
5 online, Kalene Walker, and Mandy Sackett.

6 DIANE EDMONDS: My name is Diane Edmonds.
7 I'm a long time surf photographer from here in
8 Orange County. So I always pride myself thinking
9 that I follow pretty well what's going on the
10 coast, but the 3.6 million pounds of highly
11 radioactive waste kind of -- I didn't get the memo
12 on that one somehow. I was contacted by the
13 Samuel Lawrence Foundation back in December, we
14 had a really big swell running, and they wanted me
15 to drop what I was doing, drive down to San
16 Onofre, and take some pictures, try to get big
17 weaves smashing against the sea wall, which I was
18 been able to do. I've since been back down there
19 during several different King tide events and
20 captured a lot of photos of just the situation.

21 So I have to say when I saw where those
22 canisters were stored, I was horrified, and I
23 couldn't unsee how close they were to breaking
24 waves and the condition of the sea walls that are
25 protecting us from that waste. So I got involved.

1 I started studying the whole nuclear situation in
2 California, because I am photographer, I love
3 Diablo Canyon, that whole area, so I'm also
4 interested in what's going on up there. Gary and
5 I and a couple of other people did a presentation
6 to the California Coastal Commission back in April
7 and just expressed some of our concerns about
8 what's going on at San Onofre. It was actually
9 quite promising, four of the commissioners at the
10 end of the public comment session spoke quite
11 extensively about the comments that our group had
12 made, and one of the people actually went on
13 record saying we all know this is not a good place
14 to leave the waste, they were saying I want this
15 topic to be added to future agendas as opposed to
16 just hearing about it in public comments.

17 Another one said I echo the concerns
18 expressed by these speakers, and I look forward to
19 follow up in a future meeting. That was a
20 worthwhile effort.

21 You may have heard about a crazy lady who
22 sometimes goes down to San Onofre and walks up
23 down the entire parking lot at Old Man's, that's
24 me talking to surfers. I have been trying to go
25 down there on the days or just after there's been

1 a radioactive waste water release which you had
2 said there hadn't been any, I can give you the
3 dates and the volumes, February 12,
4 150,076 gallons were released, February 26th, so
5 about two weeks later, another 95,000 gallons,
6 March 18th another 93,000 gallons, and then
7 there's another I don't have on here.

8 I do try to go down to San Onofre and
9 talk to surfers as close as possible to when those
10 radioactive releases are happening and just make
11 them aware, Hey, you guys realize what's happening
12 here today or what happened here yesterday, I know
13 it's nothing compared to the millions of gallons
14 of water that was being sucked in and out on a
15 daily basis when the plant was operational; but I
16 think the surfers have a right to know, if you're
17 going to surf that day, maybe go surf somewhere
18 else, especially if you're a female. I'm a mom to
19 two girls who happen to surf and I think --

20 CHAIRMAN DAN STETSON: Diane, it's time,
21 thank you very much.

22 Next, we have as I mentioned, two online
23 callers. So we have first Kalene Walker.

24 Kalene, are you there?

25 KALENE WALKER: I am. Can you hear me?

1 Is it echoing?

2 CHAIRMAN DAN STETSON: We can hear you.

3 KALENE WALKER: I questioned the claim
4 that the Nuclear Waste Management is only a social
5 political problem, it's I feel it's very much a
6 technical problem. I attended a consent-based
7 siting meeting and I asked when we would be able
8 to ask and I get answers to technical questions,
9 and the answer was at the NRC licensing stage,
10 which is way down the line. I have questions now.

11 We know that the canisters are vulnerable
12 to stress, corrosion, and cracking and even if you
13 could find the cracks as Dr. Murray stated, the
14 repair technology that's being presented has not
15 been approved or even evaluated by the NRC and
16 technical evaluations of the technology have
17 determined that nickel cold spray does not get
18 credit for containing the helium or the pressure
19 strength of the canisters. So I don't think the
20 repair technology is value. That's a technical
21 question that needs to be reevaluated and spoken
22 honestly about.

23 Putting a bad canister in an overpack was
24 evaluated years ago by the NRC and determined that
25 the canister would overheat and that wasn't even

1 high burn-up fuel.

2 So my point is that regardless of where
3 the waste is, the top priority should be secure
4 containment of the radioactive fuel. Each
5 canister holds a Chernobyl disaster radiation. We
6 have over 4,000 loaded across the country but we
7 have no plan for a failing canister. We have no
8 hot cell facilities. We know at San Onofre that
9 Holtec canisters were unavoidably gouged against
10 carbon steel, which embedded carbon steel into the
11 stainless steel initiating pit corrosion on
12 delivery. Sixteen years from crack initiation,
13 the NRC has stated within 16 years through-wall
14 cracks can grow. And we have two year canisters
15 at Diablo Canyon that conditions for crack
16 initiation, two year old canisters, 16 years for a
17 through-wall crack.

18 2019 DOE technical gap analysis report
19 addresses stress, corrosion, cracking issues,
20 hydride effects on the cladding, hydride
21 reorientation, cladding embrittlement, consequence
22 of canister failure, fuel transfer options. Those
23 are all top priority items, but claiming that the
24 demo cask is validation that nothing is happening
25 in those canisters is completely unjustified. The

1 only way to know is if you can open the cask that
2 requires a hot cell. In Europe they have hot
3 cells. They use bolted casks. They can inspect
4 the fuel before transport and after.

5 When will the Department of Energy
6 acknowledge the fact that we do not have accurate
7 assessment of the fuel or the canisters and that
8 we need to be able to get actual data on these
9 existing over 4,000 canisters across this country.

10 CHAIRMAN DAN STETSON: Thank you kindly.

11 KALENE WALKER: That's what I have to
12 say. Thank you.

13 CHAIRMAN DAN STETSON: Yes, thank you
14 very much. We appreciate your comments and
15 questions.

16 Next we have Mandy Sackett.

17 Mandy, are you there? I saw you earlier.
18 I know you're there.

19 MANDY SACKETT: Hi sorry, struggling with
20 the mute button.

21 Mandy Sackett with the Surfrider
22 Foundation. Surfrider is opposed to permanent or
23 long term storage of radioactive waste at the
24 deactivated SONGS site due to its proximity of the
25 coastlines, susceptibility to geological

1 instability and the location of a densely
2 populated area.

3 We are really focused on advocating for
4 federal legislation that promotes accountability
5 for spent fuel and ensures consent for hosting
6 communities, as well as those communities that the
7 waste would pass through for transfer and that's
8 for interim or long term storage.

9 As an important part of issuing that
10 consent and allowing for local oversight,
11 Surfrider is supporting legislation and advocating
12 for legislation that allows for state authority to
13 conduct environmental review of radioactive waste
14 transport and storage to reverse the NRC's
15 exemptions. We think we need to restore
16 environmental review to this process.

17 We've worked for years also to advocate
18 for consent-based disposal and served on
19 Congressman Levin's nuclear task force. So we
20 really appreciate the DOE's progress on finding a
21 consent-based consolidated interim storage
22 facility through the process. However, we're
23 really concerned that the focus is solely on
24 interim storage right now. There is no apparent
25 federal effort to establish a consent-based

1 permanent repository, but that is essential
2 because without a permanent repository, any
3 interim facility will become a de facto permanent
4 storage site, which the host community wouldn't
5 have consented to which sort of negates the whole
6 consent-based approach.

7 Regarding DOE consent-based siting
8 freight work development, we do appreciate DOE
9 holding these quarterly meetings on the
10 consent-based process, but we are afraid there's
11 not as much public engagement and enough sort of Q
12 and A portion, so we're asking for that.

13 We also have concerns about the
14 consent-based siting con consortium and whether
15 industry engagement there is inflated. We really
16 want to make sure it's a community-led process,
17 not industry-led. Also regarding our efforts to
18 approve spent fuel transportation, we are really
19 concerned about transportation safety, not just
20 modeling a numerical, but like the actual physical
21 canisters heated to temperatures to reflect spent
22 fuel.

23 The recent train wreck in East Palestine
24 in Ohio demonstrates the urgency of the need for
25 public health protection, so we're hoping there

1 can be a federal solutions there.

2 We have a question and our question is
3 how will the nation's stranded waste be
4 prioritized for the consolidated interim process?
5 And how can we ensure there's public input into
6 the prioritization process?

7 CHAIRMAN DAN STETSON: Thank you, Mandy.

8 Now, I'm going to turn it over to Victor
9 and Martha to facilitate the public discussion.

10 MARTHA McNICHOLAS: Do we want to address
11 the ones --

12 VICTOR CABRAL: The ones that were
13 brought forward here.

14 MARTHA McNICHOLAS: The ones online or
15 the ones to Paul Murray first?

16 VICTOR CABRAL: Let's do the ones to Paul
17 first. I think one of the first questions was
18 about the nuclear waste becoming more fragile with
19 time. The second component of that is the
20 so-called temporary thin canisters that's being
21 stored and how we address those issues.

22 PAUL MURRAY: The high burn-up demo
23 project when we loaded the fuel into the cask, we
24 actually took what we called sister rods. We
25 pulled rods from fuel assemblies similar to the

1 fuel that was going into the cask. The fuel was
2 sent off for a Post Irradiation Examination at the
3 U.S. National Laboratories, it went to Oakridge
4 National Laboratory, Pacific Northwest National
5 Laboratory, and to Archive National Laboratory
6 where we conducted a series of tests.

7 It was hypothesized in the gap analysis,
8 but I think where hydride reorientation would take
9 place, the examination of the fuel showed that
10 hydride reorientation did not take place. We
11 planned to when we opened the cask again, pull
12 another set of sister rods, do the Post
13 Irradiation Examination again, compared with the
14 results to the original results to see what's
15 happened. We do not expect anything to happen.

16 When we move the high burn-up demo cask
17 to its new home, we will open what's called an
18 International Center for Research and Spent
19 Nuclear Fuel and High Level Waste. Why am I doing
20 that? 140,000 tons of spent nuclear fuel in
21 total. If each fuel assembly weighs let's say
22 half a ton, 280,000 fuel assemblies, all different
23 cladding types: Zirc 4, Zirc 2, stainless steel,
24 ZIRLO, M5, even Zirc 4 made by Westinghouse is not
25 the same as Zirc 4 made by Framatome, huge variety

1 in cladding.

2 If each 280,000 fuel assemblies
3 15-by-15 rods, that's 63 million rods, can I
4 examine every single rod in every single fuel
5 assembly? No, I can't. Can I by myself examine a
6 statistically meaningful number of these rods?
7 No, I can't.

8 Other countries have the same problem.
9 Other countries are doing exactly the same as we
10 are. They're worried about how to store fuel for
11 long term in dry storage. So the international
12 center will be set up to collaborate with other
13 countries. We've reached out to Belgium, we've
14 reached out to Germany, we've talked to the UK.
15 We hope to launch a center in 2025 and really
16 launch it in 2026. That way we can start to share
17 data. Everybody has got the same cladding. These
18 other countries have got fuel with much higher
19 burn-ups than we have. That way we can start to
20 share data, we can start to address some of the
21 concerns about the cladding and fuel integrity.

22 Some countries claim the cladding is
23 going to last for 100,000 years. Why can't we do
24 that as well? I encourage you all to go and look
25 at the dummy fuel assembly, which is in the back

1 of the hall here, these fuel assemblies are very,
2 very structurally rigid.

3 I used to work for AREVA, and we had to
4 predict the end of life mechanical characteristics
5 of fuel. Once it's in a reactor for six years,
6 it's subject to a lot of forces, a lot of
7 stresses, then we have to be able to take it out.
8 At AREVA we used to test the mechanical end of
9 life characteristics of the fuel. All the fuel
10 vendors have the data. They spent tremendous
11 amounts of money doing the examination of the fuel
12 to get the end of life characteristics.

13 We are actively working with the fuel
14 vendors, the cask vendors to collaborate together
15 to share that information to make storage of fuel
16 safer. That combined with the international
17 center will start to answer questions on a
18 meaningful basis. No more speculation. Let's get
19 enough statistical data to show where we are.

20 MARTHA McNICHOLAS: There's a couple of
21 questions that were sent in online regarding
22 reprocessing. Some of them are very technical.
23 I'm going to try to read it.

24 PAUL MURRAY: I know a little bit about
25 reprocessing.

1 MARTHA McNICHOLAS: Separating fission
2 products from unused fuel would reduce the storage
3 amount by a factor of 20 and the storage duration
4 by a factor of 1,000. The best method is
5 pyroelectric process developed by Argon and Idaho
6 National Laboratories. In a credible engineering
7 study, not vague hand waving, shows that the price
8 would be reduced by -- okay -- if the Nuclear
9 Waste Act has collected from the utilities about
10 43 billion but explicitly prohibits the funds for
11 reprocessing, are SONGS, SCE, and the DOE pushing
12 for spent fuel reprocessing? If not, why not?

13 PAUL MURRAY: It was my second job. I've
14 only had four jobs in my life. My second job was
15 reprocessing the fast reactor fuel at Dounreay. I
16 did it for a year, 15 tons a year fast reactor
17 fuel. Following that, I went to support British
18 Nuclear Fuel's design, build, and commission the
19 Thermal Oxide Reprocessing Plant at Sellafield.
20 It could take, from memory, about 1200 tons of
21 heavy metal a year reprocessing. We also had
22 building 2 and 5 with the 2,000 tons a year of
23 reprocessing. I supported Belgium, I supported
24 Germany in reprocessing. When I joined AREVA in
25 2007 it was to look at reprocessing in the U.S.

1 and building advanced reactors in the U.S. We
2 designed the plant, came up with a schedule, a
3 cost for building it.

4 So I'm agnostic about reprocessing. My
5 job is to manage the spent nuclear fuel and high
6 level waste. As I said, I will collect it in
7 interim storage. If somebody wants to rebuild a
8 reprocessing plant next to my interim storage
9 facility, go at it. They still need -- somebody
10 needs to collect it, somebody needs to move it,
11 I'm going to do it. Then I'm going to move the
12 fuel to geological repository. If somebody wants
13 to build a reprocessing plant or some super
14 machine to transmutate the waste, they have
15 250 years to do it. If they don't do it, we will
16 close the repository and walk away from it.

17 FRED BAILLY: I think the question was
18 asking whether SONGS or SCE was supporting
19 reprocessing or recycling the spent fuel. Like
20 Paul, I have significant background in recycling
21 and reprocessing spent nuclear fuel; however,
22 having said that here, the answer is no. SCE is
23 not advocating for reprocessing or recycling spent
24 nuclear fuel from commercial reactors.

25 As it relates to the Nuclear Waste Policy

1 Act, we are focused on interim storage and
2 permanent disposal. At the same time there's
3 quite a bit of talks and energy around
4 reprocessing so apart from amending the Nuclear
5 Waste Policy Act, there's work in congress at
6 present that would provide for an R&D program here
7 in the U.S. for reprocessing.

8 Many of the advanced SMR, small modular
9 reactors, that are in development today would rely
10 on reprocessing for their fuel. So there could be
11 a path forward for reprocessing in the U.S., but
12 that is not what SCE is advocating for.

13 PAUL MURRAY: Can I just make one
14 comment? Even if you reprocess, you still need a
15 deep geological repository to deal with the high
16 level waste. It doesn't just magically disappear,
17 there's no free lunch. You still generate high
18 level waste that has to be disposed of.

19 VICTOR CABRAL: We had Roy and Rudy come
20 in and talk about the Randsburg site. I'm not
21 sure what we could do, but they talk about it as a
22 potential site here in California, so do you have
23 any --

24 MARTHA McNICHOLAS: My question along
25 with that is, who do they go to? Edison is not

1 going to do that as a project, but where do they
2 take their idea?

3 PAUL MURRAY: Several people have come
4 forward to us suggesting that they would like to
5 be an interim storage site. We will provide time,
6 when we are allowed, to come out with a request
7 for interested parties to come forward. We are
8 establishing the criteria so everybody can clearly
9 see the restrictions around -- just like citing a
10 nuclear reactor, the certain pass/fail criteria,
11 we are developing those, everybody can see them,
12 and then we will release a call for communities to
13 come forward to volunteer.

14 MARTHA McNICHOLAS: They don't have to be
15 part of one of the consortia?

16 PAUL MURRAY: No. The consortia are
17 just -- they are not trying to cite anything, but
18 really just trying to raise public awareness about
19 spent fuel and high level waste. The next phase
20 is when we go out and call for volunteers.

21 MARTHA McNICHOLAS: Can you give these
22 guys are somebody's business cards so they can --

23 CHAIRMAN DAN STETSON: They have it.
24 They're on it.

25 VICTOR CABRAL: So we had some discussion

1 about the proximity of the canisters to the sea
2 walls and the dangers there and the nuclear waste
3 releases that were recent, and this may be for --

4 FRED BAILLY: I can take this one. I
5 think regarding to the sea level rise and the
6 impact of the -- on the sea wall and the pictures
7 with high tides and king tides, I think it's worth
8 probably going back to the last CEP session that
9 we had. We had an extensive presentation on this
10 topic taking into account, and I think we used
11 some of the pictures of the king tide that were
12 graciously provided by Gary Headrick on this one.
13 I think there was a lot of very good information
14 that's relevant and that should bring some comfort
15 on how robust the design and the actual features
16 are.

17 Regarding the water releases, we announce
18 them in advance. We are going to be making
19 additional releases by the end of the month or
20 early next month, and it will be announced, it
21 will be posted on the website, and regarding the
22 impact I think there's been a series of sampling
23 by us but also by third parties including
24 Surfrider.

25 And I think, Dan, you took a few folks on

1 that expedition as well, basically it's the same.
2 That was addressed in the past. I don't have the
3 number on top of my head, but I would encourage to
4 go back. If there's a need for more information,
5 we will provide it.

6 VICTOR CABRAL: The only part of that
7 question was the point that was made that you had
8 talked about the fact that wasn't a release.

9 JERRY STEPHENSON: Let me address that.

10 VICTOR CABRAL: I'll let you address
11 that.

12 JERRY STEPHENSON: First, the samples we
13 took were sent to Woods Hole, a third party, and
14 no radiation above background was found the way I
15 remember it.

16 On the -- I apologize for not have the
17 dates of the release. The one that you didn't
18 know was May 6th was our last release. I got that
19 information now. I looked around the room to see
20 if Ron Pontes was here, because he would have had
21 that. He's not available tonight. I apologize
22 for not having that data earlier. That's all I
23 wanted to say.

24 CHAIRMAN DAN STETSON: If I could add to
25 that briefly, Fred, yes, Surfrider we went out

1 collected three water samples. We went out during
2 and then after the discharges, and they were sent
3 to two wonderful organizations. The first one was
4 Woods Hole, and we also sent one to UC Irvine,
5 Professor Finkeldei, who is actually here in the
6 audience, she was kind enough to analyze both of
7 the samples that we sent to UC Irvine, and you're
8 right, they came back at virtually undetectable
9 levels from the releases.

10 VICTOR CABRAL: I'll go. The next
11 question was really about federal legislation
12 focusing on interim storage as opposed to the
13 repository and whether, I guess implicit in that,
14 is whether there's going to be a little bit more
15 focus on the repository, another component, I'll
16 throw all three out there, the train accidents
17 that have demonstrated some uncertainty, you'll
18 have a chance to talk about the trains.

19 And then the community input versus
20 industry input on some of these forms that are
21 going across -- taking place across the country.
22 I think as that was put to the question.

23 PAUL MURRAY: So the repository versus
24 interim storage. I'm doing what I'm allowed to
25 do. Yes, in my opinion, we need a repository, a

1 robust repository program moving forward. I have
2 some ideas. We are going into our planning phase
3 of what we're going to do in '25 and '26. We're
4 going to start this this July. Post election I
5 hope to see us doing something slightly different
6 than generic, so I need time on that one.

7 The train, yes, there's been a lot of
8 high profile train derailments. There's videos
9 online showing trains going down the track, sparks
10 flying off the wheels. Our train is instrumented
11 up the Ying Yang. Everything is being monitored
12 on that train. If anything is happening to that
13 train, we will know about it, and it
14 instantaneously stops. We are exploring in
15 collaboration with the Navy. Remember, the Navy
16 moves spent nuclear fuel on a regular basis out
17 from the East Coast out to Idaho for storage.

18 Our train was developed in conjunction
19 with the Navy. The Navy conducts a series of
20 exercises to demonstrate what happens should there
21 be an accident with the train. We're trying to
22 figure out is there a potential for us to work
23 with the Navy to do a civilian demonstration.
24 That's ongoing. We started discussions last week.
25 We're doing everything within our power to build

1 public confidence there; instrument a train,
2 demonstrations, package performance demonstration,
3 everything is what we're trying to do.

4 The last question is industry input for
5 consortia. Some of the consortia are led by
6 industry. I can't stop them from going to the
7 meetings.

8 MARTHA McNICHOLAS: One of the things
9 that came up from a couple different people was,
10 and we've discussed it before at CEP, is the need
11 for a hot cell.

12 PAUL MURRAY: So the U.S. National Lab
13 System have hot cells at Idaho National Lab. They
14 can take full size fuel assemblies there. PNL has
15 hot cells, Oakridge has hot cells. One of the
16 things I'm looking at with this international
17 center is I want them to design a mobile hot cell
18 for me. It's been looked at in the past. The
19 Electrical Power Research Institute has just done
20 a paper summarizing what's been done in the past.
21 I would like for this international center, once
22 it's up and running and we have the appropriate
23 funding, to design and build a hot cell for me. I
24 can move it around the country. I can open
25 packages. That's what we're trying to do.

1 MARTHA McNICHOLES: There's no plan to
2 build one here at --

3 PAUL MURRAY: No.

4 MARTHA McNICHOLES: -- SONGS?

5 PAUL MURRAY. No. They're very
6 expensive.

7 MARTHA McNICHOLES: Very expensive, okay.

8 The other one this came in from Charles
9 Langley online. He wants an answer from both DOE
10 and Edison, because he thinks there might be a
11 difference in answer, I guess.

12 Edison has received hundreds of millions
13 of dollars from the Department of Energy for
14 breach of contract on the DOE's failure to deliver
15 national nuclear waste repository. These awards
16 are supposed to reimburse utilities for costs
17 associated with the expense of onsite ISFSI
18 construction and maintenance, but what about the
19 ratepayers? Are these DOE awards funding the
20 current ISFSI at San Onofre, or is the ISFSI being
21 funded out of the decommissioning fund that
22 ratepayers have already been paid? If DOE funds
23 have not been used, shouldn't the ratepayers be
24 reimbursed?

25 PAUL MURRAY: Can I answer the first bit?

1 FRED BAILLY: Sure.

2 PAUL MURRAY: The DOE is not being sued.
3 It's actually the judgment fund that is being
4 sued. So I don't lose one penny from all the
5 cases that are going on. The judgment fund is
6 general appropriations. It's not appropriated
7 each year. It's automatically once the litigation
8 is settled, it's paid.

9 I'm going to let Fred answer the next
10 part.

11 FRED BAILLY: So you're correct, we do
12 not sue the Department of Energy. We sue the
13 United States for partial breach of contract to
14 recover expenditures for managing spent fuel.
15 When those funds are received and returned to SCE,
16 then they're returned to the ratepayers through a
17 balancing account. We don't keep the funds coming
18 back. We give it back to the ratepayers.

19 MARTHA McNICHOLAS: Okay. I think that's
20 what they wanted to know.

21 CHAIRMAN DAN STETSON: If I might add a
22 little bit to that, this is one of the questions
23 that I was asked when I was testifying in back in
24 Washington, DC, and the questions was how much
25 does it cost to store the spent fuel at SONGS, and

1 I responded that there's really two parts to that
2 question; the initial infrastructure for the ISFSI
3 was \$295 million, and then it currently costs
4 about \$20 million per year. You take that 20
5 million here and multiply it across the country,
6 so far it has racked up over \$9 billion, and it's
7 increasing at a rate of about \$2 million per day.
8 It's at this point expected to -- could move up to
9 over \$30 million; is that correct, Paul?

10 PAUL MURRAY: Yes, an additional
11 \$30 million if we hold the schedule.

12 VICTOR CABRAL: One other question
13 someone raised regarding your presentation, Paul,
14 whether the repair method is an approved method by
15 the NRC, and I'm not sure what method they're
16 talking about.

17 PAUL MURRAY: Cold spray.

18 JERRY STEPHENSON: Do you want me to
19 answer that?

20 PAUL MURRAY: Yes.

21 JERRY STEPHENSON: The cold spray is
22 developed by us in the industry to address a
23 potential repair. There's never been a repair
24 needed anywhere in the industry or elsewhere in
25 the world that I'm aware of. Our canisters have a

1 hundred year life without aging management and
2 more with aging management.

3 We -- the cold spray repair method is
4 working its way through the ASME code committee
5 process, which is a long drawn-out process, and
6 the first code case has been approved. We're
7 working through the second code case, and it will
8 eventually be endorsed by ASME.

9 In the meantime we evaluated ourself and
10 spoken to third party experts, and we can use the
11 cold spray with a 7248 evaluation, which is the
12 evaluation and the regulations that you use to
13 determine if you need prior NRC approval, and
14 prior NRC approval is not required.

15 MARTHA McNICHOLAS: There was one -- one
16 of the last questions was when fuel gets moved, is
17 there a prioritization in -- I'm interested
18 because we want to be number 1. When you say how
19 it's going to prioritize, we'll be all over that.

20 PAUL MURRAY: There is a queue based on
21 when the fuel was originally burned in the
22 reactor. Believe it or not, we will have to turn
23 up at some reactor sites and collect a couple of
24 fuel assemblies, and then go away and come back
25 years later and collect more fuel assemblies.

1 In the early days nuclear, these fuels
2 were burned and the queue was formed. We're
3 working on that. I have a whole series of
4 projects that I would like general counsel to help
5 me on. One, how do I get out from under the
6 queue, because if I go to the wrong utility to
7 collect fuel, I get sued or could potentially be
8 sued from people higher up in the queue.

9 One, general counsel is going to look at
10 that for me. Second, is how do I prioritize the
11 shutdown reactor sites? General counsel is going
12 to look at that for me as well. I have a whole
13 series of legal issues I have to address.

14 When the Nuclear Waste Fund was first set
15 up, the utilities had to pay money into waste fund
16 for all the fuel they had before the waste fund
17 was set up. Some utilities, the large number of
18 utilities at the time said, okay, when DOE turns
19 up to collect the fuel, we'll pay you.

20 So some of these utilities are sitting
21 out there with liability for when DOE turns up to
22 collect the fuel. Some of them put the money
23 aside, some of them didn't. When does the
24 compound interest has worked against some people.
25 There's a very good GAO report that you can go out

1 there.

2 There's a lot of legal issues we have to
3 address, but we're going to start to address them
4 to do it.

5 MARTHA McNICHOLAS: Thank you.

6 CHAIRMAN DAN STETSON: I think that's
7 Nina. Nina, are you there?

8 JOHN TAYLOR: There she is.

9 CHAIRMAN DAN STETSON: You're here,
10 you're on.

11 NINA BABIARZ: This is a question for
12 Edison: Since the legal settlement with the
13 California Coastal Commission resulted in LPI, aka
14 independent third party review of Edison's
15 inspection and maintenance program that clearly
16 specified in their primary recommendation that
17 Edison was only to use what LPI termed as a,
18 quote/unquote, extreme value calculation
19 methodology to measure the depth of the gouges in
20 the canisters at San Onofre, it bodes the
21 following question to Edison: What would be the
22 logic and/or the motivation of Edison's insistence
23 upon using a normal calculation method to measure
24 the depth of the damage of the canister gouges
25 when LPI clearly stated that using a,

1 quote/unquote, normal method would underestimate
2 and underpredict the depth of the damage in the
3 gouges of the canisters?

4 JERRY STEPHENSON: I can answer that.
5 We're currently doing that statistical analysis
6 for the inspection that was done earlier this year
7 and we're using the recommended methodology, the
8 extreme value method that LPI asked us for. We
9 are also doing the normal method. And why would
10 we do the normal method? If it comes out higher
11 than the extreme value, we'll use it. That's more
12 conservative. We will not use anything less
13 conservative. We'll use the higher of the two,
14 the one that is more conservative, which will meet
15 LPI's requirement. If LPI would calculate a
16 number of 20, and then the normal method
17 calculates 25 and we use 25, that bounds what LPI
18 asked for. We will be doing everything that LPI
19 asks for and possibly more.

20 MARTHA McNICHOLAS: Thank you, Jerry, for
21 reiterating that. We heard that before, but thank
22 you.

23 CHAIRMAN DAN STETSON: Okay. Thank you,
24 Nina, and thank you, Jerry.

25 John, now we can turn to your question.

1 JOHN TAYLOR: Okay. My question is about
2 the interim storage, which is obviously more
3 logical in everybody's opinion more doable, but
4 was the major limiting factor for searching out a
5 more permanent repository? Is it to find the
6 correct kind of structural mountain or salt mine
7 or whatever it is, or is it more the political
8 will, or the political issue to looking into the
9 future?

10 Why can we get five interim sites and not
11 be able to handle the problem of one permanent
12 site? What's the limiting factor there?

13 PAUL MURRAY: First of all, we need to
14 have a consent-based siting process learning to
15 find one more geological repository. We know one
16 didn't work before, it stopped. Most countries
17 carry forwards, two, three, four coast communities
18 through to the end.

19 At the end of the day it is -- we all
20 wish for perfect geological media for where the
21 repository would be. At the end of the day we're
22 going to -- we have enough engineering skill now
23 and enough knowledge to make pretty much any
24 geological media work, we do. So really we're
25 working for those host communities to eventually

1 come forward, when they feel comfortable enough,
2 it's not going to happen for several -- a long
3 time, but we need to work to get those communities
4 and the state comfortable with where we are. And
5 that's what's stopping us. We need to start the
6 process, we need to have a consent-based siting
7 process. We need to be able to communicate the
8 state of the community, this is safe, what the
9 benefit it is for them taking the waste for the
10 region or the country. It's a long slow tedious
11 process.

12 Most countries in the world that have
13 done it. There have been a few countries that
14 have false starts like us. That doesn't mean you
15 go home, you get back on the bike and try again.

16 JOHN TAYLOR: It's feasible that one of
17 these interim sites could become the permanent
18 site, we don't know, right?

19 PAUL MURRAY: If they really wanted to,
20 yes.

21 JOHN TAYLOR: Thank you.

22 CHAIRMAN DAN STETSON: Any other comments
23 or questions from the CEP.

24 Garry? Michelle?

25 That was an excellent discussion. We

1 want to thank everyone for participating.
2 Unfortunately Supervisor Desmond had to rush out
3 for some pressing business down in San Diego, and
4 Fred, I will turn to you for some closing comments
5 and any other thoughts you have.

6 FRED BAILLY: Thank you, Dan. And I want
7 to thank you and the other members of the CEP
8 panel for the opportunity to provide an update on
9 our decommissioning progress.

10 I'd like to thank also the Spent Fuel
11 Solution Coalition co-chairs, Supervisor Desmond
12 and Foley for their update on the progress being
13 made by the coalition.

14 I want to thank you, Paul, for taking the
15 time to join us this evening and sharing your
16 update on the federal spent fuel management
17 program.

18 We will continue to watch over the spent
19 fuel until the department comes and takes it off
20 site. We also appreciate tonight's questions from
21 the panel, questions from the public. We like the
22 challenge and we will continue to in the future
23 update on the progress of our decommissioning
24 program but also on topics of interest to our
25 local community like we did tonight. Like I think

1 you mentioned and touched a few points of interest
2 in the future that we will be focusing on with
3 this. Just thank you all.

4 CHAIRMAN DAN STETSON: Thank you very
5 much, Fred.

6 If we could have the next slide, please.
7 While it may appear to be glacially slow, we are
8 making progress, and we have really -- I think now
9 we have a number of champions for our cause at the
10 federal level. We have Congressman Scott Peters,
11 we have Mike Levin, and of course Paul Murray
12 working -- pitching for us and trying to get
13 things done, so we're really appreciative of all
14 of them. We need more, we certainly need more.

15 Paul has certainly demonstrated
16 competence in the field. I think he expressed
17 interest tonight that he is working to try to do
18 what is in the best interest of our local
19 communities. I think he's made a commitment to be
20 transparent, the fact that he's here face-to-face,
21 and I never heard that term before letting us push
22 your Billy button?

23 PAUL MURRAY: Belly button.

24 CHAIRMAN DAN STETSON: Belly button, and
25 we hope that that's, again, he's working to

1 certainly be transparent and working really hard
2 to build our trust. We are certainly appreciative
3 of that. I think we're working and making
4 progress in a couple of areas: Number 1, on the
5 consent-based siting and also Paul mentioned some
6 things, which I think is really important to us,
7 and that is some extra tools that we're going to
8 be hopefully adding to our defense-in-depth in
9 terms of monitoring the canisters here to see if
10 there is anything that we need to be aware of.

11 I think for me those are some of the key
12 things that we're going to continue moving on.

13 If we can go ahead and move onto our next
14 slide. This talks a little bit about what we've
15 got going on for upcoming meetings. The third and
16 fourth quarter meetings are scheduled to be online
17 unless Paul comes back a little early. We'll
18 allow guest speakers, CEP members, and the public
19 to participate without the commute, and with that,
20 I would like to thank everyone for coming and wish
21 you all a very safe drive home. Good night.

22 (WHEREUPON THE PROCEEDINGS WAS ADJOURNED
23 AT 8:05 P.M.)

24 (CERTIFICATE OF COURT OFFICER ATTACHED ON
25 FOLLOWING PAGE HEREOF.)

1 CERTIFICATE

2 OF

3 CERTIFIED SHORTHAND REPORTER

4
5 I, the undersigned, Certified Shorthand
6 Reporter of the State of California do hereby
7 certify:

8 That the foregoing proceedings were taken
9 remotely before me at the time and place therein
10 set forth; that a verbatim record of the
11 proceedings was made by me using machine shorthand
12 which was thereafter transcribed under my
13 direction; further, that the foregoing is an
14 accurate transcription thereof.

15 That if the foregoing proceedings were
16 reported stenographically remote from the witness
17 and parties, the transcript of the proceedings
18 reflects the record that I could hear and
19 understand to the best of my ability.

20 IN WITNESS WHEREOF, I have this July 11, 2024
21 subscribed my name

22
23 
24

25 Certificate Number 12983

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[collaboration - concerns]

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[go - happening]

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[happening - idaho]

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[right - security]

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[see - sister]

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[stetson - supposed]

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