CENTERS FOR DISEASE CONTROL AND PREVENTION

NATIONAL INSTITUTE FOR OCCUPATION SAFETY

AND HEALTH ADVISORY BOARD ON RADIATION AND WORKER HEALTH

MEETING 149

THURSDAY, DECEMBER 8, 2022

The meeting convened at 9:00 A.M. EDT

at St. Petersburg Marriott Clearwater, 12600 Roosevelt Boulevard North,

St. Petersburg, Florida 33716

Dr. Henry Anderson, Chair, presiding.

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Members Present:

Henry A. Anderson, Chair

Josie Beach, Member

Victoria Cassano, Member*

Bradley P. Clawson, Member*

Arthur Frank, Member*

David Kotelchuck, Member

James E. Lockey, Member

David Pompa, Member

Genevieve S. Roessler, Member*

Loretta R. Valerio, Member*

Paul L. Ziemer, Member

Registered and/or Public Comment Participants:

Roberts, Rashaun, DFO

Adams, Nancy, NIOSH contractor

Aylers, Delmar

Aylers, Mr.

Barton, Bob, SC&A

Beal, Daisy, public

Behling, Kathy, SC&A*

Blake, Alice

Briggs, Nicole, SC&A

Calhoun, Grady, DCAS

Cook, Maddie, ORAUT/DCAS

Crawford, Chris, DOL*

Darling, Carzial

Darling, Eurell, public

Darling, William, public

Degarmo, Denise, claimant advocate

Dun, Christine Foley, public

Ehlers, Cathy

Ehlers, Delmore

Elliots, Wallace

Foley, John, Jr.

Foley, June

Griego-Kelleher, Ms.

Gogliotti, Rose, SC&A

Habighurst, Ashton, HHS

Hand, Donna, claimant advocate

Hinnefeld, Stu

Hughes, Laura

Kelleher, Regina G. DOE

Leuz, Debra

McKill (ph), Daniel, claimant advocate

Minor, Charles

Nelson, Chuck, DCAS

Newkirk-Watson, Vivian, public

Newkirle, Shawnda

Ostrow, Steve, SC&A*

Pasart, Robert, public

Powell, Susan, public

Remaley, Robert

Rossard, Marilyn

Rossard, Robert

Rutherford, LaVon, DCAS

Scott, Annie

Scott, Elton, public speaker

Scott, Sherry, public speaker

Talbot, Cathy Ludwig

Taulbee, Tim, DCAS

Thornton, Shirley, public speaker

Tichen, Dudley

Wood, Eliz A.

Ziemer, Marilyn W.

Ziking, Dorothy

*Present via telephone/Zoom

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PROCEEDINGS

(11:00 A.M.)

Welcome and Roll Call

DR. ROBERTS: I'm Rashaun Roberts, and I'm the designated federal official for the Advisory Board on Radiation and Worker Health. And I would like to welcome you to board meeting 149. All of the materials for the meeting today --

(Whereupon, there was an interruption in meeting audio.)

-- public meetings, so you will just need to go to the December tab for calendar year 220 -- 2022 to find them. If you're participating by telephone only, you can go to the website to access all of the materials, and you can follow along with the presentations that are there. And these materials were provided to board members and to staff prior to this meeting.

This is a hybrid meeting so it's a little complicated. We are conducting it in person, by telephone, and also by Zoom. On the website there is a Zoom link which will enable you to hear and watch the presentations. I'm hearing a little bit of feedback. I think that may be me.

UNIDENTIFIED SPEAKER: It sounded like a little baby, kid.

DR. ROBERTS: It did.

Okay. So there's a Zoom link on the website, and that will enable you to hear and watch the presentations through Zoom. If you've chosen to receive the audio through Zoom, you should be able to speak to the group and also hear all the presentations. If you're not speaking, please be sure to select and stay on mute by muting the microphone on the -- and that's typically on the lower left-hand corner of your screen.

If you've dialed in, you will only be able to hear presentations and to speak through the telephone line. If you're not speaking, please, make sure that your phone stays muted unless you need to speak. If you don't have a mute button on your phone, you'll have to press *6 to mute, and *6 to get yourself off mute. And, also, if you're participating by telephone or otherwise, we're asking that you, please, identify yourself before your comments or questions.

So with that out of the way, let's go ahead and move into the roll call. As the board members and staff register attendance, please, acknowledge any sites where you might have any conflicts of interest, if any. And, for this meeting, I'm pleased that we're welcoming four new members. So, let's go ahead and get started with the roll call, and we'll go in alphabetical order starting with Anderson.

(Roll call.)

DR. ROBERTS: Okay. Great, thank you. So let's go ahead and move further into the agenda, just to keep things running smoothly. From a technical standpoint, please, periodically check Zoom to make sure that you're muted. And also to check your phone and make sure that you're on mute unless you're speaking. Again, for Zoom, the mute button is on the lower left-hand side of your screen. If you don't have a mute button on your telephone, press *6 to mute, *6 to take yourself off mute.

I do want to let everyone know that there is a public comment period at -- on the agenda today at 5:00 p.m. The public comment period will conclude promptly at 6:00 p.m. So -- or following the final call for public comment, whichever comes first. So if you do plan to comment, please,

plan to do so at 5:00 p.m. Eastern.

So with that, I will go ahead and turn the floor over to the Board Chair Dr. Henry Anderson.

CHAIR ANDERSON: Thanks Rashaun. I would like to welcome everybody as well. And we saw on -- this morning, the sign-up list for a public speaker is quite a number of people. So we typically would ask people to limit to 10 minutes, but given the number of people signed up, we're going to ask you to try to limit your time to about five minutes so that we can accommodate everybody during that one-hour period. So, please, respect that others have things to say, and we really want to hear from everybody.

So with that, I want to welcome everybody that we have at the hybrid meeting, and we're going to probably in the future also need to do hybrid meetings. But hopefully, all of the issues that have come up in similar type meetings with the IT information seems to be working well today. So, we're ready to get started.

And with that, I'd like to introduce Mr. Grady Calhoun who is going to give us an update on the NIOSH program.

NIOSH/DCAS Program Update

MR. CALHOUN: All right. Good morning, everybody. I hope you-all can see my slides. It's pretty awesome to see everybody in person again. It's been so long, you know. It's not quite the same as it is when you're on the screen. I'm gonna see if I can move this up so it's not in my way. And, of course, I can't.

CHAIR ANDERSON: We can see you fine, so.

MR. CALHOUN: There we go. All right. (Indiscernible) down, now go right. It's not advancing. There we go. All right. And that's covering my title, too.

But we talked about contracts and staffing and whatnot. We're in the hire -- in the process right now of hiring three health physicists due to retirement and job changes. So it -- it takes quite a long time to get that going through the -- through the federal government, but we are well on our way to -- to make that happen, I hope. We're also in the process of hiring one administrative officer to -- due to a job change; he changed jobs.

Come on stop.

Okay. Workshops, town halls, and outreaches. I hope I didn't skip any slides there. It looked like it jumped to IT and then came back to this. But we have some -- we had -- we had some meetings scheduled. We worked together with Department of Labor and Department of Energy to do outreach, to -- to talk to people about the program, make sure they know about it, make sure they can get signed up, answer any questions that they may have. And in the past, prior to COVID, we used to do these in person, and that was really much nicer than doing them virtually.

But we had scheduled some in New Mexico, Arizona, and Tennessee. But about two weeks prior to when we were supposed to go, they were postponed due to increase in local COVID levels. So, the plan is to still do those in person in 2023. So, we look forward to doing that. There are still some meetings that are being held virtually. But the ones that we want to do out there in -- in New Mexico and Arizona would be much better in

person.

MEMBER BEACH: Grade -- Grady.

MR. CALHOUN: Yes?

MEMBER BEACH: Josie. You did skip three.

MR. CALHOUN: I don't know if I can go back. Let's see.

MEMBER BEACH: It's an important one, or I wouldn't have mentioned it.

MR. CALHOUN: Okay. Let's see if I can get it. Slide three. All right.

UNIDENTIFIED SPEAKER: Just go to the current slide --

MR. CALHOUN: There it is right there.

UNIDENTIFIED SPEAKER: Yeah, current slide.

MR. CALHOUN: Yeah, and we got that pesky thing on the side. All right. IT update. As I think, many of you knew, there was -- we had to -- to pause our production due to a potential vulnerability, security vulnerability, in our systems back in May of 19 -- or of 2021. It feels like 1921. But since that time, we've worked on establishing a manual system to process our cases, want to make sure everybody knows it was never breached. There was never anything that happened, all the data is secure. But it's taken a while to get to even the manual system that we have.

But we do have a manual system now in place for processing both dose reconstructions and SEC petitions. And we've gotten back to, what we call, a steady state of processing of dose reconstructions. And what that means is that we're processing the dose reconstructions, at the same rate approximately, as they're coming in. So we're not building up a backlog of dose reconstructions that need to be done.

We're also able to process the expedited -- terminal expedited cases, as we always have. And our goal has always been, at least in the last several years, to -- to get all the dose reconstructions completed within five months of getting the last piece of data that we need to do the dose reconstruction. And we're well over 90 percent of that again at this time, so that -- that -- that's good.

We're still continuing to work on some other data management systems to -- to make them work better for both ourselves and the advisory board and SC&A. I won't say the advisory board's contractor, because I learned that was wrong yesterday. So, anyway, we're working on that. We do have a system in place right now, but it's still not what we want. But I know that Bob Barton has worked with that system that -- that helps us give you more of what you request. So although that is in place, we're still trying to get some things done to make that a little bit better.

Okay, there we go. It's just very sensitive. I talked about that one. All right.

Record requests at the Department of Energy -- did the screen just change for you-all, because it changed on my thing. I don't --

MEMBER BEACH: Yes.

MR. CALHOUN: I don't see my presentation.

MEMBER BEACH: Oh, no, it's...

MR. CALHOUN: It is? Okay. I'm seeing --

MEMBER BEACH: Slide two.

MR. CALHOUN: I'm seeing emails right now.

UNIDENTIFIED SPEAKER: Yeah, I (indiscernible) -- I got your --

MR. CALHOUN: And it's not my email, so --

UNIDENTIFIED SPEAKER: I'm seeing email, too.

MR. CALHOUN: Okay, okay. Let's -- let's see what happened here. Oh, my gosh. What the heck. We need to get rid of email altogether here from this.

UNIDENTIFIED SPEAKER: We're looking at (indiscernible).

MR. CALHOUN: Okay. Back to Zoom. Okay. We'll try this. Can everybody see the record requests, Department of Energy?

UNIDENTIFIED SPEAKER: Yeah.

MR. CALHOUN: People outside and --

UNIDENTIFIED SPEAKER: Cannot see --

UNIDENTIFIED SPEAKER: No.

MR. CLAWSON: No. This is Brad. I can't -- all I can see is click Zoom meeting. It says --

MR. CALHOUN: How about that?

MR. CLAWSON: It says --

UNIDENTIFIED SPEAKER: No.

MR. CLAWSON: -- Dave Kotelchuck.

UNIDENTIFIED SPEAKER: Well, you must already be in Zoom, though, if we're watching you on Zoom.

UNIDENTIFIED SPEAKER: Yeah. He -- he -- he just needs to get out of his email.

MR. CALHOUN: Yeah. So I --

UNIDENTIFIED SPEAKER: There you go.

MR. CALHOUN: I don't know if, Nancy, you're accessing email, but --

MR. KOTELCHUCK: Thank you, very much.

MR. CALHOUN: -- from somewhere else?

MR. KOTELCHUCK: I don't know how that happened.

UNIDENTIFIED SPEAKER: Let me see if I can help.

MR. KOTELCHUCK: There we go.

MR. KOTELCHUCK: Sorry.

MR. CALHOUN: Yeah. I think somebody just, like, accessed email, which was really weird.

UNIDENTIFIED SPEAKER: Are we --

UNIDENTIFIED SPEAKER: Can you see?

MR. CALHOUN: Yeah.

UNIDENTIFIED SPEAKER: Can you see that on Zoom?

UNIDENTIFIED SPEAKER: Let's close my email.

MR. CALHOUN: Yeah. Were you on your email?

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Well, yeah.

MR. CALHOUN: I just closed it all in here. I know you're looking for display settings -- trying to figure... There they are. Okay.

UNIDENTIFIED SPEAKER: I think we're seeing it much --

UNIDENTIFIED SPEAKER: What screen are they showing there?

MR. CALHOUN: In a minute we'll have to ask.

UNIDENTIFIED SPEAKER: But it looks --

MR. CALHOUN: Okay. Now are you seeing the record requests?

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: There we go.

MR. CALHOUN: Okay. Jeez. All right. So, basically, we have -- let's get rid of that. We have 271 total outstanding record requests. That does not mean that these are late; that means that we have made record requests to the Department of Energy for -- for the dosimetry information and any other information that we need for dose reconstruction. So, as you can see, there's only eight greater than 180 days, two between 121 and 180, and 12 between 60 and 120 days old. So, that's where we are with that.

Okay. As far as our cases, we've gotten fifty -- 55,350 cases to NIOSH from Department of Labor. 53,000 of those have been returned to -- to DOL. There's also been -- there's 1,193 at NIOSH for dose reconstruction, and 930 are administratively closed for one reason or another. We've got four hundred and -- or 47,768 submitted to DOL with a dose reconstruction.

I was trying to move that. Okay.

47,768 DRs sent for final adjudication. And this has been somewhat consistent over the years, about 73 percent of those are less than 50 percent, and 27 percent of those are 50 percent or greater. And that -- that -- that's how this has typically run throughout the -- the history of the program.

Active cases there's 1,180 at -- at NIOSH for dose reconstruction. 73 are in the DR process, 197 are in the hands -- this is as of 11/11 -- 197 are in the hands of the claimants right now for their review and ultimately, we'll

-- we'll do -- conduct an interview with them and get the OCAS-1 form signed.

And then there's 910 cases in preparation for dose reconstruction, and that's just a data gathering process.

And that's it. Hopefully, I didn't miss any. Any questions on that?

CHAIR ANDERSON: Any questions?

MR. CALHOUN: Okay. I'll get the next one going here, I hope, for Department of Labor.

MR. CRAWFORD: All right. Hello, Grady. Can you hear me? This is --

MR. CALHOUN: I can. I can hear you, Chris, but give me just a second --

MR. CRAWFORD: Sure.

MR. CALHOUN: -- so I can get this thing shared here. All right. Okay. We're gonna go from the beginning. All right. All right. I think I got this. I wish I could get rid of this pesky little thing. I just have to keep it --

UNIDENTIFIED SPEAKER: Keep it at the top.

MR. CALHOUN: -- at the top. All right. Chris, I'm a -- I'll go down to the first slide here. I think I will. All right. Does everybody see the slide titled "compensation paid"? Okay.

MR. CLAWSON: This is -- this is Brad. Yes.

UNIDENTIFIED SPEAKER: Yes.

MR. CALHOUN: Go ahead, Chris.

MR. CRAWFORD: Okay, thank you, Grady.

DOL Program Update

Good morning, everyone. Just launch right in then. On this slide, the date on notice are as of October 31st for the DOL presentation. And we do have some white discrepancies with NIOSH, as usual. And theirs, I think Grady said, are through Nov. 11, which might count for some of it. Well, we have 700 and a half -- 7.5 billion, rather, Part B compensation payments made, $6 billion in Part E compensation, 8.5 billion dollars in medical bills paid, and total compensation of medical bills paid are $22 billion. That's with 227,711 cases filed.

Slide, please.

MR. CALHOUN: NIOSH related SEC and DR cases.

MR. CRAWFORD: You have $1.7 billion paid on dose reconstruction cases with 16,060 payees. There are -- there's $184 million paid out on cases that are both approved SEC cases and have a probability of causations of 50 percent or greater with only 1,417 payees.

All right.

MR. CALHOUN: NIOSH referral case status.

MR. CRAWFORD: We have 56,170 cases referred to NIOSH for dose reconstruction, with 54,468 cases returned to DOL from NIOSH. Those returned, 47,685 were returned to DOL with a dose reconstruction and 6,783 were withdrawn from NIOSH with no dose reconstruction. We also show 1,707 cases currently at NIOSH.

Slide.

MR. CALHOUN: Part B dose reconstruction and final decision.

MR. CRAWFORD: Yes. This slide, as Grady mentioned earlier, it doesn't change very much either in terms of the proportion of approvals and

denials. These are 37,640 cases with a dose reconstruction and a final decision. Of those cases, 12,858 got final approvals and 24,782 have final denials, which works out to 34 percent final approvals, 66 percent final denials.

Slide.

MR. CALHOUN: Part B cases filed.

MR. CRAWFORD: The other category is the largest. And that has to do with beryllium sensitivity, chronic beryllium disease, chronic silicosis cases. NIOSH gets 30 percent of the cases. 13 percent of the cases are never sent to NIOSH because they're accepted under the SEC provisions. 12 percent of the cases are SEC cases, but they're also referred to NIOSH. And the remaining 7 percent of cases are RECA cases for uranium miners' affiliated work.

Next slide.

MR. CALHOUN: Part B cases with final decisions.

MR. CRAWFORD: Yes. Very similar to the other slide, with some notable difference in a number of approvals. Cases with Part B final decisions are 111,079. Part B approvals, 59,737, Part B denials 51,342, which leads to 54 percent approvals and 46 percent denials. This shows the effect of the SEC approvals of the DR approvals.

Next slide please.

MR. CALHOUN: Top four worksites.

MR. CRAWFORD: Our usual suspects: Nevada test site, Savannah River site, Hanford, and Y-12 Plant.

Slide.

MR. CALHOUN: SEC sites, one of two.

MR. CRAWFORD: I'm going to go back and forth on this, Grady. Do Rocky Flats first, and then return to --

MR. CALHOUN: I'm not sure I can do that, Chris, but I'll try.

MR. CRAWFORD: Okay. If we can't, I will --

MR. CALHOUN: Yeah. I would -- I would say let's not, --

MR. CRAWFORD: Okay.

MR. CALHOUN: -- because I kind of got out of it when I tried to go backwards.

MR. CRAWFORD: Ah, okay, No problem. Then I'll be reading two columns of numbers.

In this case -- these are the SEC sites under discussion today, Rocky Flats and Pinellas. Their cases filed -- claims are a different number. That has to do with the number of the family members, survivors, and so forth. But cases are simply related to the employee. You have 9,991 cases from Rocky Flats with 13,007 claimants. Pinellas, we have 1,625 cases filed with 2,087 claimants.

Cases returned by NIOSH with dose reconstruction to date, 2,302 for Rocky Flats and 495 from Pinellas. Final decisions have 4,425 -- these are Part B decisions -- Rocky Flats and 715 final decisions from Pinellas.

Slide.

MR. CALHOUN: Slide two of two, yeah.

MR. CRAWFORD. Yes, thanks, Grady.

Part B approvals are 2,423 for Rocky Flats, 176 for Pinellas. Part E approvals, 2,803 for Rocky Flats, 285 for Pinellas.

Total compensation and medical bills paid 896,892,849 for Rocky Flats, 97,929,159 for Pinellas.

Slide.

MR. CALHOUN: Recent webinars.

MR. CRAWFORD: Right. I'd like to put in parenthetically that we were asked about the types of attendees that come to the -- to the meetings. And for all of these meetings here, we did not collect that information. I got a message from the head of BOTA (ph) that, in the future, we plan to make that change asking the team that runs our webinars to -- to request the info, which is to say the info regarding what kinds of attendees we have, whether they're returnees, ARs, claimants, employees, that sort of thing.

Then to deal with the slide, we had a customer experience meeting October 2022, with 120 attendees. These will all be virtual attendees. Then in September, working backwards, we had a claims process and post adjudication actions seminar/webinar, 389 attendees. In August we had a site exposure matrices webinar with 202 attendees. And then in July, we had DEEOIC tools and resources webinar with 214 attendees.

Slide.

MR. CALHOUN: Recent webinars.

MR. CRAWFORD: Right. This sort of repeats the information I started with, but DEEOIC webinars are attended by a variety of internal and external stakeholders, including claimants, authorized representatives, medical providers, advocacy groups, federal agencies outside of DOL and DEEOIC federal and contractor employees. Attendance typically varies depending on the topic of the webinar.

MR. CALHOUN: Events and --

MR. CRAWFORD: Slide.

MR. CALHOUN: -- webinars. I'm there.

MR. CRAWFORD: The -- we're taking a pause during the holiday seasons in November, in December. There are no scheduled webinar series then. We'll be restarting the virtual webinar series in January 2023. We don't have a schedule, but -- but the DEEOIC plans to reschedule several outreach events that were canceled in 2022 due to rises in local COVID-19 community transmission levels. These events will take place in the following locations -- events will now take place in 2023 and specific dates have not yet been determined. Additional events may be added to this list.

The places mentioned are Farmington, New Mexico; Shiprock, New Mexico; Kayenta, Arizona; Oak Ridge, Tennessee.

Slide.

MR. CALHOUN: Events and webinars, two of two.

MR. CRAWFORD: Right. Here you will see -- and this will be on the website, where the DLL presentation will be available at NIOSH. This gives you a link to a list of upcoming DEEOIC events.

Next slide.

MR. CALHOUN: Department of Labor's presentation to NIOSH advisory board, handout slides.

MR. CRAWFORD: These are repeated every presentation we do, and they're, what you might call, boiler plate, so I won't go through them, but they will be on the website with this presentation.

That concludes my presentation. Any questions?

MEMBER BEACH: I have -- yeah.

Member Ziemer: (Indiscernible) --

MEMBER BEACH: Sorry, Paul. You want to go?

MEMBER BEACH: Yeah, Chris, just a second. I'm getting into slide six, just a brief explanation. And Grady, you don't need to go back. It's not -- it's not terribly --

MR. CALHOUN: I can do it. I -- I --

MEMBER BEACH: -- complicated.

MR. CALHOUN: I -- I -- I figured out how to do it. Where do you want to go?

MEMBER BEACH: So the slide six, on the SEC classes referred to NIOSH, the 12 percent, can you give us a little background on why those are referred to NIOSH where the other ones, the 13 percent were not?

MR. CRAWFORD: Typically, that's because there is a more than one cancer in the case, in which case, one may qualify for SEC treatment, but the other may not. For instance, the case of a skin cancer would be a typical one. That's not covered under the SEC class, but it is covered under Part B with a dose reconstruction.

MEMBER BEACH: Okay. So that's --

MR. CRAWFORD: A certain percentage of those cases are handled under both SEC rules and Part B compensation rules.

MEMBER BEACH: Okay. Thank you. I just wanted to understand the difference. So that will receive a partial dose reconstruction as long -- along with the SEC.

MR. CRAWFORD: That's correct.

MEMBER BEACH: That's great. Thank you.

MR. CALHOUN: Yes, Dr. Ziemer?

DR. ZIEMER: This is not so much a question as a comment. In fact, I want to thank Greg -- or Chris is how he is called -- for actually following through and getting the information on the types of attendees at the webinars. That's not so much, I think, for our information as a board, as is that it might be helpful to the Department of Labor in knowing who they're reaching and whether or not there should be changes or additional things done to make sure that all the stakeholders are, in fact, participating in these webinars or have the opportunity to. So, I just wanted to thank Chris for following up on that.

MR. CRAWFORD: Thank you, Dr. Ziemer.

MR. CALHOUN: Any other questions?

CHAIR ANDERSON: Okay. Let's --

MR. CALHOUN: All right. Let me switch to Department of Energy. Hold your hand. Let's see, DOE program update. Let me go to Zoom. There DOE... I think that's pretty... What I need to do is move this down...

Let's see. Can everybody see the Department of Energy support slide?

UNIDENTIFIED SPEAKER: Yes.

MEMBER BEACH: Yes.

MR. CALHOUN: This -- and this worked for me. Just put that in there and touch it. There we go. I thought it would go. There it goes. Back --

Ms. Griego-Kelleher: Back to --

MR. CALHOUN: Yeah. It's really sensitive, so just --

MS. GRIEGO-KELLEHER: -- touch that, okay. Thanks, Grady.

DOE Program Update

MS. GRIEGO-KELLEHER: Good morning, everybody. I'm Regina Griego-Kelleher. And so, I just wanted to be here today. I have just -- I just wanted to let everybody know I'm back. I am -- now have assumed the responsibility of the program manager for EEOICPA. As many of you know, and I want to -- and do it -- welcome the new members. And I think, more or less, I just wanted to give some, some background on myself, so you can understand where I'm coming from.

I've been with the program since day one, since it was developed. I left the department probably about 2008-9 time frame. Did other things, and then came back in 2018, to help Dr. Pat Worthington on special projects. One of the projects, obviously, was this program, Greg Lewis, who's the director, was somewhat understaffed. So they asked me to step in for -- for him.

And since then, within this last six months, they've asked me if I would assume the program management position, and I have. So you'll be seeing me and hearing from me. But thank you for having me back. Again, I'm looking forward to working with everybody.

But going forward -- and I have to apologize, I'm -- I had another presentation developed, but it wasn't 508 compliant, so I might go off script a little bit, just based on what I had prepared, but I think it's somewhat similar. So, this one's 508 compliant.

As -- as you all know -- and I'm probably going to be speaking more to the new members than the current members. Department of Energy is responsible to provide records to -- not only to the Department of Labor and

NIOSH, but also in response to claimants' claims. So we provide information through a system called SERT, the -- it's a secure electronic records transfer system. This system was developed about five or six years ago, and it's much more secure than what we used to do was, you know, mail in claim information through the mail. This is, more or less, kind of real time. The site's -- you know, labor and NIOSH upload their request, and then our sites upload their responses for labor and NIOSH.

We also provide assistance to -- to labor NIOSH and advisory board on large-scale research and site characterization projects. Those efforts take place, obviously, across various DOE sites. We'll also facilitate, when necessary, in working with some of the major contractors. I know recently we just worked with BWXT in trying to secure some -- from -- information from their -- from their corporate office.

And then, also, we conduct research in coordination with labor and NIOSH, related to the covered facility designations. That's one of the mandates that -- that energy has to maintain and update, research the covered facility designations. And we have coverage facility database that we just recently updated.

In respect to individual records, as you all know, you know, a lot of these claimants worked at various DOE sites, with multiple contractors, subcontractors, different jobs, divisions over a career, so sometimes it can be very daunting in trying to, you know, find responsive records for these claimants. A typical worker records may have to go to different sites or departments, various databases. For example, one of our sites have like 40 different sources that they'd have to routinely research for responsive

records. And that could be anywhere from microfiche, microfilm, databases, scanned, etc.

Recently, one of the things though, with -- with the records, you know, OMB just recently pushed for all the agencies to move to electronic records. So hopefully, this won't be a problem in the future, since a lot of our sites are moving towards electronic records. One other thing that we've been working on within, I would say June, is third-party redaction efforts. So that's something we had to recently send out to the guidance. And this is a response to labor, providing claimants and advocates access to their claim files. And so we wanted to make sure that there was not any third-party information embedded in that -- in -- in those claimant files.

So currently, this somewhat slows down the process, and we recognize that. But our sites now have to go in and redact. And, and when I say "redact" it may be that, you know, there's so much of records on rosters, you might have a number of names of claimants or employees that were on a RAD roster. We want to make sure that information is redacted and is only specific to the -- to the individual filing the claim.

We never had to worry that -- about it initially, because we had a routine-use agreement with labor, and we assumed it would be protected and it would never be shared outside the public, but this has changed. So that's why we're moving to third-party redactions. If we'd done it early on in the -- in the program, it would have taken a much longer time for the sites to get information to labor. So it was our understanding that we would -- we would send it to labor as is even if they had third-party information.

Our timeliness goals. Let's see, for FY-22, we've had about 16,903

responses. That's actually been pretty -- about the same as pre COVID. The -- you know, people were still filing claims, they were, you know -- we were still pretty active. What was challenging, obviously, was just responding to requests made by the Department of Labor during COVID. We have about 2,500 that are over 60 days with an 84 percent response rate. And we're -- our goal has always been to be over 90 percent. In the past we have been, but obviously, with COVID, that's caused some delays. And then, also with the third-party PPII requirement, that's caused some challenges for the sites.

We are seeing progress though, within the last two months we have 2,700 total responses, 342 over 60 days with an 88 percent response rate. So, we're hoping that response rate will increase.

Total responses since the inception of the program -- I thought that this was actually interesting -- was about three hundred -- it's about 360,000 responses that our sites have provided to labor and NIOSH since 2001.

As I mentioned earlier, we have large-scale research projects that are driven by labor's and NIOSH's needs. We have about 22 active site assistant research projects going on right now. And then with Department of Labor, we have five, which are SEM updates for site exposure matrices database updates, with two SEM public releases. And this is basically where DOE will review the entire database after labor updates the SEM. We will freeze the database. Our DOE classification office will review the SEM database and then approve it for public release. So it's -- happens about twice a year is when this SEM is actually viewed and then publicly released.

As I mentioned, you know, we provide -- we're -- we're dedicated to providing responses to labor and NIOSH and advisory board, but we have to do it in a responsible manner. Our headquarters' office does a lot of the reviews for reports and has a pretty good time -- turnaround rate of about eight workdays. I know that with COVID and with staffing issues with our classification office, we've had some challenges within the last couple months, but we're seeing them improve their -- their -- their timeliness. And then, also, you know, any kind of responsive records at times, have to -- has to be reviewed at the site level, too. So sometimes, that can actually cause a delay, but those are usually normally just specific records that are requested, say, through the SEM research efforts.

As I mentioned, we have our -- responsible for covered facilities' database. We do -- we have updated the database. So if you haven't had a chance to go look at the database, you know, we -- we -- we've spent some time. It was -- it was very dated.

Now you have an opportunity to search. There's a map view, and then there's, obviously, a search field, where you can actually search for the sites by state or location, alias. And then what -- the nice thing about it is it gives you the ability to transfer it into an Excel file. So in the past, it wasn't that easy. Now you can actually export it to Excel and then print it. So that makes it a lot easier if you're -- if you're trying to pull a list of particular sites together.

In regard to research, again, I'm gonna miss -- mention, you know, with respect to the last three years, you know, sites are now adapting to a remote -- remote work environment. A lot of our DOE's facilities -- and

even at headquarters, has moved to a remote work environment, so employees will only come to the site when they have to. So this is going to become a bit of a challenge, particularly in the records arena, and we know that. So we've been working with the sites to figure out how we can get the appropriate resources to the sites to -- to make sure that those records are pulled in a timely manner.

As I mentioned, you know, the sites are also working on the digitizing permanent federal records so that agencies may dispose of original source records. But there's a standard for those -- for digitizing these records. So the sites -- that might cause some delays, with respect to requesting records at our sites.

I know there's an ongoing issue right now, I think, with Boeing, because EM is in the process of digitizing all their records. They'd rather digitize it and then give it to NIOSH versus NIOSH coming in, and then digitizing. It's -- it's -- it's double work, right. So it doesn't make sense for them to -- to spend money when they can actually get it done correctly and then transferred over to -- to NIOSH. In addition to that, it's just a resource issue, since their priority is trying to get the -- the digitized records done on time.

My understanding is OMB -- the deadline was for the end of this year to have some -- the records digitized, but I think that might have had to have been expanded. I'm not quite sure.

One of the other challenges, too, as I mentioned, the federal record centers is only -- is -- is available by appointment only. The one thing we did do is that we did establish an agreement with NARA so that if there --

our sites request records, it's -- it's -- we mark it differently. They see it's expedited, and therefore, they're -- they're responding to our records as they come in and it's -- it's --- if they're not -- no longer should be delayed. However, obviously, there's some -- sometimes people want to enter their record centers, and that's appointment only. And I mentioned that also for NIOSH and SC&A, so they understand that it is by appointment only, but you are able to access those facilities.

And then, the last thing I want to mention is our medical screening program. I know Dr. Frank is very familiar with that, and I'm -- I'm grateful that you're here. I think he'll be a wealth of knowledge to the advisory board. But Dr. Frank worked with the DOE -- the screening program for a number of years. And so, I know he just recently left. But -- but that's a great resource for our claimants.

As you know, our investigators or our -- our principal investigators at these sites are very familiar with the operations. So that's a benefit to these employees is when they go through screening, they're able to get a -- somebody who's very well in depth to the hazards at the site, and then -- then they'll be able to provide that information to labor to support their claim.

And, I guess, that's it. If you have any questions, you know, feel free to ask.

UNIDENTIFIED SPEAKER: Yeah, I have one question. Has the NIOSH IT security new activities going on, has that impacted your program?

MS. GRIEGO-KELLEHER: No, it has not.

UNIDENTIFIED SPEAKER: Okay, good.

MS. GRIEGO-KELLEHER: Yeah.

UNIDENTIFIED SPEAKER: I was going to say, all the records you haven't transferred are going to really be --

MS. GRIEGO-KELLEHER: I think what's -- yeah, it -- it's a completely different system --

UNIDENTIFIED SPEAKER: Yeah.

MS. GRIEGO-KELLEHER: --- so, you know, it -- yeah, we're fine. I think what's -- what's impacted NIOSH, unfortunately, and DOE is this third-party PPII guidance. So that has slowed down the process a bit, but our sites are -- sites are starting to get into the swing of things.

UNIDENTIFIED SPEAKER: Good, thank you. Go ahead.

MEMBER ZIEMER: Gina, I think last time when Greg Lewis talked to us, he indicated that on some sites, maybe just a few, or maybe just one, the COVID impact had basically shut down their archival activities, and particularly, with respect to access to classified documents. And there are some of our work groups that have been waiting to get classified documents. It -- it's not clear to me at this point, how that stands with respect to the digitizing of everything and access to those kinds of documents. Could you clarify that?

MS. GRIEGO-KELLEHER: I'm not familiar with that. This is the first I've heard about classified records, but I'll go back and ask. I know, our sites, you know, have been challenged, but I didn't realize there was an issue with the classified records. So that'll --

MEMBER ZIEMER: Well, unless I misunderstood that. And maybe

NIOSH can clarify that, too. Do we know how the accesses are to the classified documents at some of those sites?

MR. CALHOUN: I think that, in general, we've not been able to go visit sites in person. I don't think it was specific declassified documents, but we can't go to the sites in person to -- to -- to do data capture or whatnot. And but, we are -- have -- we do have a couple plans here shortly. I think that's been the primary issue. All right.

MR. RUTHERFORD: Actually, we -- Lawrence Livermore -- this is LaVon Rutherford. Lawrence Livermore, we were having trouble getting into Lawrence Livermore, which would have been to look at classified documents. But they did allow access, and we couldn't get travel approved -- travel approved for us because it was too late in the year. But ORAUT did get into the site and did get access to that. And -- and we are doing one at Los Alamos here in January.

MS. GRIEGO-KELLEHER: And I will say, I think with accessing records, we just have to -- we're trying to be creative. I mean, for an example, I know that SC&A was looking to gain access to our NEMS (ph) database and a number of other systems, the ORBS (ph) database, and I'm finding that are -- the departments or the organizations are willing to work with SC&A, but it's -- has to be Teams oriented. So if folks are willing to get on Teams, work with a staff member, they'll go into a system, pull the information with you. So, there are ways around it. It might not be the typical way of going onsite, but we are trying to find workarounds.

CHAIR ANDERSON: Greatly appreciated.

MS. GRIEGO-KELLEHER: Any other questions? Thank you. It's good

to be back.

CHAIR ANDERSON: Okay.

MR. CALHOUN: All right. I'm gonna switch to the Rocky Flats presentation here, --

CHAIR ANDERSON: Yes, please.

MR. CALHOUN: -- which is a PDF, so it might be a completely different world for us here. So, we'll see. Oh, no, that's Pinellas. Let's see Rocky Flats. There it is.

MEMBER KOTELCHUCK: Thank you, --

MR. CALHOUN: Hold on. I'm not done yet. So that's -- what do I need to do? Go down, slide show. Current slide. Can everybody see the review of the Rocky Flats plant technical basis document? Okay.

(Whereupon, Mr. Calhoun speaks with Mr. Kotelchuck off the record.)

Review of Rocky Flats Technical Basis

Documents: Revisions and Issues

MEMBER KOTELCHUCK: Okay. Thank you. Can you all hear me? Okay. I'll put this back here. Okay.

So this is a review of Rocky Flats plant technical basis documents, revisions, and issues. And go the next. We had a meeting on October 4, '22nd, and though the entire group, Rocky Flats Plant work group, was there, Bill Field, myself, Loretta Valerio, and Paul Ziemer. I should say that, with great sadness, the Rocky Flats work group of the Advisory Board Radiation and Worker Health observes the passing of board and working group member Bill Field. We acknowledge his many important contributions

over the years to this working group, and to the board, and we'll be discussing it later in this meeting as well.

So, background: At our March 23, 2017, meeting, the advisory board decided it had sufficient available to do individual deuce -- dose reconstructions, with sufficient accuracy for RFP claimants exposed after 1/1/84. And thus, the board decided to extend the status -- not to extend the status of the special -- of the existing special exposure cohort 192 beyond 12/31 -- and by the way, that's a typo. It should be 1983. And I'll send that change in.

So, at our October meeting, we considered the updates and changes to the technical basis documents, the TBDs that make up the Rocky Flats site profile that it will -- we, essentially, learned much information as we were reviewing the possible SEC for that plant. And now, if -- as we will do dose reconstructions for folks who sent -- who are claimants for -- after that date -- for exposure after that date, we will -- the -- the -- we will be doing individual dose reconstructions and this will help us do it.

Okay. The -- and I'm -- I don't want to get into the weeds of all of the discussions that we went through, the technical discussions. I'd be here for several hours repeating the meeting that we had, but I'm trying to summarize what we did. So I'm going to talk about, essentially, the topics that we discussed, without getting into the details. Unless you want -- and -- and if I can answer without getting into the details of what precisely we were talking about.

So, we have five Rocky Flats Plant technical basis documents that had been -- have been revised as of January 2021. First, the site description

called TBD-2 occupational medical dose; TBD-3, occupational environmental dose; TBD-4, occupational internal dose and occupational external dose. So SC&A reviewed the five revised RFP TBDs, and -- and the review was to determine previous site and -- issues identified by SC&A's original 2005 site pro -- pro -- profile review had been resolved by the revised TBDs, the RFP working group and proceedings, and NIOSH.

SC&A also performed a general review of the five revised TBDs. SC&A provided the RFP working group with a review report on December 23, 2021. And NIOSH issued a response paper in July of 2022, July of this year. And we were -- we are discussing that.

And, by the way, while I'm talking about SC&A's role, I do want to thank Bob Barton, for -- who -- from SC&A for his help in preparing this -- the slides for this show.

Okay. So SC&A presented its review on October 4 -- at the October 4th meeting, and we all discussed it. The working group, NIOSH, SC&A discussed the results of the review and the current status of the findings and any new findings or issues that were presented, and the following slides give an outline of what we did.

The SC&A issues for TBD-2 site description was resolved by revised TBDs. SC&A finds that all the previous TBD-2 issues, the site description issues, have been addressed in our -- in rev -- revision 2. Revision 2 is more comprehensive in scope and depth and includes more details on slight -- site closure and decommissioning. And that was SC&A's observation one.

And, by the way, for the new members of the board, when we talk about issues that come up, we make a distinction between findings and

observations. Where the SC&A says there is a finding, it means there is the possibility of an error, either there isn't --- in their judgment, there is an error or there might be an error. And the -- so those are really important to resolve. Observations are, essentially, issues that there is a typographical error in a table or there is a mine -- or it would be nice if there was a little more explanation in the TBDs about what to do and why we're doing something. So, observations don't have to be resolved. They're not -- they're not an issue that there's a potential error. They are simply an issue that it would be nice if we did something a little more or there may be a minor error, a minor type of typographical error.

Okay. So, SC&A recommended closure in finding eight, which was about inadequate information about recycled uranium based on updated treatment of the issue in the TBD-5. So, we discussed and closed the finding, and TBD-2 will be revised to address the recommendation and future TBD revisions. SC&A concurred with NIOSH, the board agreed, and we resolved this. Pardon me.

Now TBD-3, occupational medical dose. TBD-3, finding five was about radiation exposure from occupationally necessitated medical X-rays. So SC&A finds all the remaining issues for finding five have been addressed and resolved and recommended closure. The working group discussed and -- and agreed, and we closed the findings.

Their observations, SC&A identified some incorrect tables listed on page two. And when I say "incorrect tables," I should rather have said more precisely, some -- some errors in the labeling of the table or a particular entry was incomplete -- was what was left out, not that the table as a whole

was, if you will, in error. NIOSH plans to address these errors in future TBD revisions, SC&A concurs, and we resolved this.

Oops. Okay. Finding nine, environmental dose -- finding nine for TBD-4 was about inadequacies in addressing potential environmental exposures from routine and ambient airborne releases and resuspension of contaminated soil. So, the -- SC&A finds that rev. 3 of TBD resolves finding nine. NIOSH has provided a better justification of its basis in available site monitoring data and has added more specific information and guidance about the contribution of resuspension of soil contaminants for occupational environmental exposures. SC&A recommended closure, and NIOSH agreed, and we resolved this.

Findings one and two for occupational internal dose. This is now, after all, a major category in the dose reconstruction. A very important one, finding one, TBD-5, finding one was that NIOSH has suggested use of a urine bioassay minimum detectable amount, MDA, values appeared low. SC&A finds that TBD-5 resolves this issue, recommended closure. The working group agreed.

Finding two was that the TBD lacks definitive direction in some instances, and SC&A finds that TBD-5, rev. 3 resolves this issue. And so, there was agreement, and we passed on.

Finding seven for TBD-5 was that TBD-5 should include recommendations for ingestion intakes in direct reference to the appropriate ingestion-intake-related document. NIOSH's response was the TBDs are designed to contain site specific guidance on internal dose reconstruction in this area. There is no site-specific scenario identified for this finding that

would warrant TBD to issue a particular site-specific guidance. Therefore, no changes in TBD-5 are recommended and SC&A accept NIOSH's clarification. And that is to say that basically, TBD-5 covers this, doesn't need a special statement for (indiscernible), and so, the working group -- with agreement, the working group discussed and closed this issue.

Whoopsie. The screen is acting up a little bit. There we go. So TBD-5 observation a -- a -- a less -- a press -- a pressing issue than the findings or potential issue with the findings. SC&A finds that Table B-11 lacks units for the minimum -- minimum -- minimum dose. MDA, minimum dose -- minimum dose allowed values for Americium-241. It appears that it should see -- it should specify the unit of nanocuries. NIOSH plans to edit TBD-5 to add units for MDA values. I mean, that's, again, observation, a minor thing. They didn't -- they did not talk about units. They didn't label the units. And so, we resolved this. Okay.

Occupational external dose now. The finding three was concerned with the interpretation of NTA film data for workers who are not included in the non -- neutron dose reconstruction project. The -- this was addressed in the finding by use of neutron-to-photon ratios, coupled with use of available coexposure data. Since we didn't have monitoring, we used neutron-to-photon ratios. SC&A recommended closure, NIOSH agreed, resolved.

TBD-6 for finding four was concerned with the treatment of personal dosimeter placement and angular dependence, that is to say, the direction in which the worker was standing and the radiation was coming, and whether -- whether that was a problem. And TBD-6 addresses the finding by analysis of the angular dependent -- dependence of the monitoring device. We --

closure recommended, and we resolved it.

And so, TBD finding 10 was concerned with hand and wrist doses. For people -- particularly for people who work in -- in glove boxes, and TBD-6 addressed --

(Whereupon, the audio for Mr. Kotelchuck was lost.)

MR. CLAWSON: We just -- this is Brad. We just lost -- we can't hear on Zoom anymore.

UNIDENTIFIED SPEAKER: We just lost audio.

MR. KOTELCHUCK: Ahh.

MR. CLAWSON: There -- there -- there we can hear you.

MR. KOTELCHUCK: Okay. Well, I, maybe, was allowing myself to stand a little too far back from the microphone. So, I'm close --

MR. CLAWSON: Okay.

MR. KOTELCHUCK: -- to the microphone and maybe that helps resolve it. All right, good.

Well, this is a long list. But the point is, particularly for our new -- our new board members, I mean, these are the kinds of details you have to go over if you're going to do individual dose reconstructions -- or not just go over, we've always gone over all these issues for the dose reconstructions, but we -- we now know so much more than we did years ago. Because we looked into the SEC that we can say we can do a better job, and this is -- this is the best job that we can do in assessing individual dose -- individual dose reconstructions. We're -- we're nearing the end.

Finding 11 for TBD-6 was concerned with potentially significant doses from industrial X-ray and neutron generators used for research and

development and nondestructive work. TBD-6 addresses the issues; there was agreement; SC&A recommended closure; NIOSH agreed and resolved.

Now, observations on neutron dose factors. SC&A observed that NIOSH needs to clarify the reason for the changes in neutron dose multiplier factors listed in Table 6-16 of TBD-7 rev. 3, compared to Table 6-14 of rev. 0, and NIOSH responded that these multiplier factors were updated based on guidance from the OTIB from ORAUT, which was issued after TBD-6 rev. in 2004. SC&A concurs, right, and, obviously, we have closure, and that is resolved. In other words, you know, we're looking -- there's the -- SC&A realized there's a different table being used now, why and what's the basis for the new table, and of course, it's updated information. And okay.

Now, observation on neutron limit of detection values. SC&A observes that -- this is an observation that the reason for recommending a limit of detection value of 226 rem. and Table 6-18 and 6-19 needs clarification. NIOSH will correct the LOD values for 62 and 63 in future revisions. SC&A concurred; resolved.

Conclusions. All differences between SC&A review findings and NIOSH responses resolved and approved by the Rocky Flats land working group. All SC&A observations discussed and NIOSH differences resolved and approved by the Rocky Flats working group. And so, we really have now updated the TBDs or the dose reconstructions that will be coming, and we will move ahead in the future.

So, are there any questions?

MEMBER BEACH: Dave, could I ask a question? This is --

MEMBER KOTELCHUCK: Sure.

MEMBER BEACH: -- Joe -- Josie Beach. Are these all closed or are some of these still in abeyance waiting for the final documents to be completed? How did --

Member Kotelchuck: No. I mean, these are closed. And I mean, there -- there will -- there will be -- the documents will be technically -- will be updated based on this discussion. So there are no -- no -- there are no outstanding issues that I remember that we have in abeyance. Certainly, none that were discussed in that issue. Yes.

MEMBER BEACH: So, there's no back checking of --

MEMBER KOTTLECHUCK: No, --

MEMBER BEACH: -- the documents?

MEMBER KOTTLECHUCK: -- no. Unless there's some from a previous era. I don't think so.

Paul?

MEMBER ZIEMER: On a sort of definitional basis, I -- I think, in the board document tracing, those items which have been resolved and closed by the work group, but yet remain to show up in a future document, I think we actually have been calling those in abeyance in the documents. So, they are closed, as far as the work group's activities are concerned, and --

MEMBER KOTTLECHUCK: Excellent, thank you.

MEMBER ZIEMER: -- and --

CHAIR ANDERSON: They continue to be tracked.

MEMBER ZIEMER: They will be --

MEMBER KOTTLECHUCK: -- (indiscernible) --

MEMBER ZIEMER: -- make sure that actually occurs. So I think --

MEMBER KOTELCHUCK: Right.

MEMBER ZIEMER: -- they do show up, as you're suggesting, in abeyance.

MEMBER KOTELCHUCK: Very good. And I appreciate that. And very good. Okay. Further questions, comments? New board members, any questions, or -- but give you a sense of what we do when we're updating the TBDs for a particular site.

MEMBER BEACH: Can I just ask one more?

MEMBER KOTELCHUCK: Of course.

MEMBER BEACH: Josie again. So is SC&A, that -- this might be a Bob Barton question. I know we don't have the board's tracking system anymore, or it's not as useful now. And in, like my subcommittee, for example, Kathy's been keeping a tracking -- running tracking. So, Bob, are you doing that for this, as well?

MR. BARTON: Yes, when we're made aware that the TBDs have actually been updated with the agreed upon changes. I mean, basically, they've all been closed for the work group. We just have to see it through till completion, and we will pay attention to that when they're revised, and just go in and make sure that those agreed upon changes are, in fact, included in the revision.

MEMBER BEACH: Thank you.

MEMBER KOTELCHUCK: Further? Okay. Thank you.

CHAIR ANDERSON: Okay. We've reached break time. Should we break a little early? The answer to that is yes. Okay. So we're going to break until 10:45 when Josie will give us a review of the procedures reviews

that you've done.

DR. ROBERTS: So, break until 10:45.

CHAIR ANDERSON: Break until 10:45.

(Whereupon, a break was taken from 10:19 a.m. until 10:47 a.m.)

DR. ROBERTS: I'm just gonna go around and take a quick attendance of board members.

(Roll call.)

DR. ROBERTS: Thank you. And I'd just like to remind people that if you're having a question or comment, to please identify yourself before. And thanks. Over to you, Andy.

CHAIR ANDERSON: Okay. I think we're ready. Kathleen's gonna present?

SC&A Presentation: Summary of Seven Document Reviews Approved by the Subcommittee for Procedure Reviews

MEMBER BEACH: Yeah. Yeah, so I'm gonna just say a couple of things, and then turn it over to Kathy. Is someone going to do our slides here? Was -- Bob, are you, or do you want me to?

MR. BARTON: (Indiscernible.)

MS. BEHLING: Josie, I'm going to do the slides.

MEMBER BEACH: Oh, perfect. Okay. So I did want to say that we -- we are finalizing seven documents this meeting. You -- we've been doing this for the last couple of meetings. We have quite a backlog. We have two other members of the subcommittee, Paul Ziemer, I wanted to recognize, and Loretta Valerio.

I do want to ask one question of our chair. As we go through the documents, Kathy will stop in between and ask questions. Shall we vote on each one at that point, or shall we wait until the very end to finalize? Rashaun said it was up to you, Henry.

CHAIR ANDERSON: I don't particularly care.

MEMBER BEACH: Don't care, okay. So, Kathy, any preference for you --

CHAIR ANDERSON: -- can just do it right afterwards. We'll just do an all in favor, all --

MEMBER BEACH: At the very end.

CHAIR ANDERSON: -- won't do a name vote.

MEMBER BEACH: Okay. So no name vote. We'll just all in favor at the end, but we'll take questions in between.

CHAIR ANDERSON: Yeah.

MEMBER BEACH: And, I think, Kathy, if you're ready, I'll go ahead and turn the floor to you.

MS. BEHLING: Okay, very good. I'm Kathy Behling. Introduced myself yesterday. And I think my strongest attribute for the program is my longevity, which just been -- I'm getting old here. But, anyway, I'm the messenger today. And, but, along -- I, along with a relatively small, but very talented group of SC&A professionals, perform these reviews of the technical guidance documents.

I also want to mention that I feel very privileged to work closely with the subcommittee on procedures review. Josie just mentioned the members. They're all very active members in other work groups and they're

committed board members. And Josie's always kind enough to give me some latitude in preparing these somewhat overzealous presentations. However, I just want to mention up front that to give you a perspective of the magnitude of the documents that are in place to perform the dose reconstruction program, I decided to count them. And there are currently 55, we call them OTIBs, because they're ORAUT technical information bulletins, and 13 DCAS TIBs. There are five implemented -- implementation guides. There are a total of 34 procedures, and there are 67 reports. That totals to 174 guidance documents. So the task in front of us and the subcommittee is quite daunting. So forgive me for attempting to capitalize on my 90 minutes by preparing a 90-slide presentation.

My apologies, Dr. Kotelchuck.

He mentioned before that it's a little overwhelming, but --

MEMBER BEACH: Kathy, can I ask you, did you count how many documents that the subcommittee has closed out that we -- we need final close out from the board, what -- how many are left?

MS. BEHLING: Yeah. I did not Josie. And I think one of the things I want to mention is not only are there a -- a hundred and thirty -- a hundred and forty -- 174 documents, as we discussed yesterday, and you will see today, these documents are also often revised. And so, we need to go back. So I did not do that to calculate how many have actually been reviewed by the subcommittee at this point in time. And my apologies on that.

MEMBER BEACH: No, don't apologize. It's -- it's a huge task. Thank you.

MS. BEHLING: Okay. So today we hope to discuss seven documents that have been reviewed and approved by the subcommittee. As shown on this slide, we'll cover one OTIB, two procedures, and four PERs. We'll start with OTIB-14, and this is the technical information bulletin for assigning environmental internal doses to employees not exposed to airborne radioactivity in the workplace or radionuclides -- I'm sorry -- in the workplace. This was actually issued in June of 2004. And it provides guidance to the dose reconstructors as to when to assign environmental internal dose rather than workplace exposure as the method for assigning these doses.

And this is usually -- it's primarily used when it can be determined that the energy employee, or the EE, likely was only exposed to inhalation of airborne radionuclides from ambient environmental doses from site operations. So, SC&A reviewed OTIBs 14. We submitted our review in June of 2006. And we identified one finding, and that finding was discussed at the September and November 2007 subcommittee meetings and resolved in April of 2012.

And our findings stated that care must be taken when assigning environmental internal dose to construction trade workers due to the diverse nature of their exposure. And NIOSH initially agreed, but they responded that there's more detailed guidance in OTIB-52. And OTIB-52 -- OTIB-52 is our OTIB form -- it's called parameters for considering when processing claims for the construction trade workers.

And based on this, it prompted the subcommittee to transfer the finding to the review of OTIB-52. And I'll just pause here for a minute to --

and you briefly touched on this during the Rocky Flats presentation. We maintain a board review system, BRS system. We don't have access to that right now, but as Josie mentioned, I am keeping a running table and tab of everything that is being resolved and discussed during our meetings so that we can, when we get access to that system again, we're able to quickly update it.

And what the subcommittee does is they -- we have different categories of the findings. When SC&A first reviews the report, we -- we give our presentation and we open up that finding, and when we get it, gets entered into the BRS, it's in an open status. Thereafter, we can put it into in progress, in abeyance, as you previously discussed, that is when perhaps NIOSH indicates that they're going to change a procedure. And so, we put it in abeyance until that happens, and then the subcommittee closes that issue, that finding or observation.

We also transfer findings, like we did in this case, and -- or they're closed. So I just wanted to make mention for the new board members how we deal with and -- and keep track of -- and track all of these findings.

So as a follow up to finding one for OTIB-14, when the sign -- when the assigning was discussed again in 2012 under the OTIB-52, NIOSH stated that unmonitored construction trade workers are not assigned environmental internal dose because they're considered more a highly exposed group of workers. And so, OTIB-52 specifically requires that the internal dose for the unmonitored construction trade workers be assigned using a 50th percentile coexposure value. So OTIB-14 doesn't really apply to construction trade workers. And the subcommittee agreed with that and closed the finding. So

that ends our discussion on OTIB-14. It was a rather simple one.

Now did I understand you -- do we want discussions now? Do -- and we want to wait to vote on these. In the past, we voted for each one, but it almost sounded to me like we are going to wait till the end. Am I correct?

MEMBER BEACH: Okay. Yeah. I think we should have discussion after each one and then we'll vote at the end.

MS. BEHLING: Okay.

CHAIR ANDERSON: Are there any questions that people have -- have it -- it's pretty simple to start. No questions.

MEMBER BEACH: No questions. I think if --

CHAIR ANDERSON: All in favor of adopting closure?

MEMBER BEACH: I thought we were gonna do that at the end or you're gonna do it at the end of each one?

CHAIR ANDERSON: I thought we're going to do each one.

MEMBER BEACH: Okay. So all in favor of closing officially, that was --

CHAIR ANDERSON: Yes, yes. And so, we're just going to do a voice vote.

(Voice vote taken.)

CHAIR ANDERSON: We could hear you online, so I think we got everybody. It's unanimous. Thank you. Okay. Next.

MEMBER BEACH: Thanks, Andy.

We're ready, Kathy.

CHAIR ANDERSON: Yeah.

MS. BEHLING: Okay. Thank you. Next procedure is ORAUT-PROC-2. And, obviously, based on the -- the number of this procedure, it was the

second procedure published, and so, early on in the program. And it discusses the use of the integrated modules for bioassay analysis, or IMBA software. It was issued in August of 2003, and it provides guidance to the dose reconstructors on running IMBA and the associated file creation process and the required documentation that should be included in the EE's files. SC&A's review was submitted in January 2005, and there were three findings. And the findings were discussed and resolved at the July 2006 subcommittee meeting.

Finding one: The procedure could provide more clear description of the various functional buttons. And NIOSH responded by stating that they did not feel that it was warranted to make a procedure change based on this comment. And they indicated that, you know, with a brief experience and training, the dose reconstructors are able to operate IMBA with ease in a brief period of time. So the subcommittee agreed and closed this finding.

I think I'm -- went too far there. Okay. I'm going the wrong way. There we go. Sorry about that. All right.

Finding two: SC&A felt that there was insufficient guidance regarding evaluating the results of the bioassay calculations. For example, how to modify the fit data. And NIOSH, again, didn't feel that this warranted a procedure revision, and they stated that this procedure was actually designed to give general-use guidance. It was not for provider -- to provide the necessary tools and experience to reconstruct internal dose.

And I will mention that in 2007, NIOSH did publish OTIB-660. And that's the internal dose reconstruction OTIB, and that contains more details regarding IMBA specific parameters to be used, and the assignment of

intake data. So based on NIOSH's response, the subcommittee agreed, and they closed finding two.

Finding three: Again, we felt that the procedure lacks appropriate guidance for making decisions requiring professional judgment, such as modifying bioassay inputs to establish a better fit. And I will take the time right now to say one of the things that we all in this program try to focus on is to minimize professional judgment. Obviously, that's for consistency purposes. It's not always -- it's not always something that can be done, especially in internal dosimetry, but we do try to minimize them.

NIOSH response was the same as for finding two. And, namely, the intent of this procedure is for general use for IMBA and not for any level of detail. So, again, the subcommittee agreed and closed finding three.

And that ends our discussion on PROC-2. Any questions?

MEMBER BEACH: Thank you, Kathy. Paul, has one. Go ahead.

MEMBER ZIEMER: I don't recall when we started using observations versus findings. These findings go back to 2004. And for example, finding two, I think, if that were to appear today, would be an observation, --

MEMBER BEACH: Agreed.

MEMBER ZIEMER: -- right?

MS. BEHLING: Yes.

MEMBER ZIEMER: There are many of these that are sort of minor like that, but in those -- at that time, we called them all findings.

MS. BEHLING: That's correct.

MEMBER ZIEMER: Okay.

MEMBER BEACH: Funny, I thought the same thing when she was

going through the slides. But, Kathy, do you remember, has it been five or six years since we went -- changed our findings/observations?

MS. BEHLING: It's at least -- at least five or six years. I don't have an exact number, but it's at least that long.

MEMBER BEACH: Right. Okay. And we won't get more into that unless somebody has a question on how we changed that. Any other questions on this?

MEMBER KOTELCHUCK: I -- Dave Kotelchuck. I don't have a question, just a comment that I think that when -- when eventually, were -- the work of the different groups are evaluated by senior people in CDC and NIOSH, that they -- where a lot of -- where -- where there were, in the past, lots of findings, which suggested that there might have been errors -- right? That's a finding said I think it's possible there's an error of consequence. And, you know, it was decided that -- and we understood that NIOSH felt like it was being -- it was suggested that they were not doing perhaps a good job. When, in fact, many of the issues that were raised were minor. And so, we said fine, we'll establish, you know, the concept of observations. And you're right, it was five or six years ago. But that --it helps -- it helps evaluate the work of the -- of the various groups, and particularly NIOSH, DCAS.

MS. BEHLING: And I think it all --

MEMBER ZIEMER: And, again, Ziemer here. I just wanted to make sure on the record that we recognize that, and also, at least for future people looking at this. And I might also point out, in case it's not clear for the new board members why we're approving documents that go back 18 years. And this is a situation where work groups approved things, and in

those days, we didn't always bring them back to the full board to look at. But we recognized that, at some point, we should have been doing that. And we're doing it now. And we're going back and picking up actions that occurred sometimes multiple years ago.

MEMBER KOTELCHUCK: Yes, yes.

CHAIR ANDERSON: And doing it on a gradual --

MEMBER BEACH: I have a --

CHAIR ANDERSON: -- basis, rather than do it at -- take a whole couple of days to go through them all.

MEMBER BEACH: Well, and it's for clarity of what we did and how we did it and tracking. So if there -- is there any more questions?

UNIDENTIFIED SPEAKER: Yeah. I have a question. On these --

DR. ROBERTS: Who's speaking?

MEMBER CASSANO: I'm sorry. This is Tori Cassano, I'm a new board member. I have a question. On these minor inadequacies, let's call them, or what you now call observations, do you have any idea of when the directive is being revised for another reason, or updated for another reason, if they take any of these observations into account and sort of, include them in -- in -- in the -- in the revision? What I'm trying to say is, obviously, these aren't worth going through the trouble of revising a document, but if they are going to revise it for another reason, do they -- do you have any idea whether they look at these observations and try to include the solution for that?

MEMBER BEACH: Yes. That is correct. That is the reason we go through this, and we keep things in abeyance, as we talked about earlier, so

that SC&A can go back and look and make sure that the original observation or finding was -- was corrected.

MEMBER CASSANO: Okay, thank you.

MEMBER BEACH: If we agree, yes.

MS. BEHLING: And this is Kathy. In some cases, and I think we'll see that as an example today, NIOSH will make comments to us that if this procedure changes, we will consider making this change or modification. They don't always do that. I'm not sure. They can better answer if they keep a listing of those types of issues, but I think they do in some instances. I don't know if NIOSH wants to speak to that?

MEMBER ZIEMER: This is Ziemer. I want to comment again. If the work group believes that it should be done in a future document, we do track. If it's -- if we don't believe that it's necessary, then we don't track it with the optional for NIOSH.

MEMBER KOTELCHUCK: David. Further comment to Tori's -- just as a -- as a logical follow up to what your concerns are. When we make a change, let's say in -- in the procedure in which we're doing dose reconstruction, NIOSH goes back and makes sure that all the people who would -- for whom they had done dose reconstruction at that site, that their -- the -- the evaluation is done again. They check and see, you know, if TBD-3 was revised. They go back and check all the people who had TBD-3 was involved. And -- and in -- with those changes, and check, make sure that the people we -- we -- we had already taken care of, if you will, are -- were properly -- are properly evaluated under the current system update. So, we really, we try to be very careful with that so nobody gets overlooked,

nobody gets a shortchange because we did an older procedure on them when we actually have a better procedure.

MEMBER CASSANO: Thank you.

MEMBER BEACH: Okay. Henry, can we turn it in -- unless there's no other comments, we'll turn it over to Henry for the vote, and it's for ORAUT-PROC-002.

CHAIR ANDERSON: Yeah, ORAUT-PROC-0002, and the recommendation is to close it out -- recommendation by the committee to the board. All in favor, say aye.

(Voice vote taken.)

CHAIR ANDERSON: No nays, so it passes without (indiscernible).

MEMBER BEACH: All right, Kathy, moving on.

MS. BEHLING: Okay. I now will move on to the ORAUT-PROC-77 procedure. This is an administrative procedure for dose reconstructors to track and -- for error tracking and reporting. It was issued back in 2005, and it provides a process for documenting and tracking any errors found in the dose reconstruction reports or comments received by ORAUT. SC&A reviewed this PROC back in 2006. We identified three findings, and the findings were discussed, and resolved at the August 2008 subcommittee on procedure review meeting.

Finding one: We asked how does this procedure fit into the overall ORAUT quality assurance program? And NIOSH responded by stating that the procedure is one part of the quality management system for the ORAUT dose reconstruction project and is actually modeled on requirements for the quality management system under the International Organization for

Standardization. And as the subcommittee felt that NIOSH's response was adequate, and they closed the finding.

Finding two: Just made mentioned that the user would benefit from a flowchart in this, what I'll call, step-by-step procedure, and NIOSH agreed, and indicated that they would consider adding a flowchart the next time the procedure was revised, or during the next biennial review. So in this case, the subcommittee did agree with that response, and they closed the finding.

Finding three: The reference to financial incentive is not appropriate for a quality assurance procedure is our finding. And this finding was referring to Section 4.5 of the procedure, where it's stated that the claims processing support group manager ensures the return of the revised dose reconstruction report to NIOSH in a timely manner in accordance with the applicable cost-plus award fee goals. And NIOSH responded that the financial incentive was -- was not the driver, it was rather -- the award of the goal is a measure -- is -- is measurable expectation based on provisions under EEIOCPA, which benefits the energy employee. So NIOSH indicated that they, again, will consider revising this statement if the procedure is revised. And based on that response, the subcommittee closed the finding.

And that's -- yeah. That's it for PROC-77. We're moving right along.

MEMBER BEACH: Thanks, Kathy. Any questions or comments?

Paul? Paul, go ahead.

MEMBER ZIEMER: Could you back the slide up? One thing in that last slide. So this is one where it says NIOSH will consider modifying the task -- the text.

MEMBER BEACH: Correct.

MEMBER ZIEMER: I'm not sure whether that -- whether they agreed to that, but if the work group agrees to that, in this case, let's say we're -- yeah, they're going to revise this -- the other thing that happened in 2008, we didn't have the board tracking system, I don't think then.

MEMBER BEACH: No.

MEMBER ZIEMER: If -- if we had that at the time, we probably would have put it in abeyance.

MEMBER BEACH: Abeyance, right.

MEMBER ZIEMER: So, we --

MEMBER BEACH: And -- and that --

MEMBER ZIEMER: But we did close it. That's what we did.

MEMBER BEACH: Yeah. And that goes with finding two as well.

MEMBER ZIEMER: Right.

MEMBER BEACH: -- the close (indiscernible) --

MS. BEHLING: Yeah.

MEMBER ZIEMER: This is reflecting what we did, asking for the board to -- to --

UNIDENTIFIED SPEAKER: The question now --

MEMBER ZIEMER: -- approve what we did, --

MEMBER BEACH: Right.

MEMBER ZIEMER: -- but we wouldn't do it that way.

MEMBER BEACH: Yeah. So -- so now moving forward, this goes into the tracking document that Kathy is maintaining at this time, so that we will be able to go back and look to see if those considerations were --

MEMBER ZIEMER: Right.

MEMBER BEACH: -- put in place.

MEMBER ZIEMER: We still track it.

MEMBER KOTELCHUCK: Absolutely. Absolutely.

CHAIR ANDERSON: -- made the decision in the past, and we're -- we're saying that was fine in the past and we're --

MEMBER ZIEMER: Right. I just want to make sure everybody's aware. So this -- if we were doing it now, it should --

MEMBER KOTELCHUCK: Yes. It --

MEMBER ZIEMER: -- we shouldn't approve closing it. It's in abeyance.

CHAIR ANDERSON: Right.

MEMBER KOTELCHUCK: Right. Right.

MEMBER BEACH: And -- and they are recognizing that these are very old procedures, and we are trying to bring them up to date and to the full board because some of them are -- are procedures and things -- how we handle things are different. But we are still tracking everything.

UNIDENTIFIED SPEAKER: And the other for this is, do we have a sense of how frequently this procedure is used?

MS. BEHLING: I believe NIOSH needs to answer that --

UNIDENTIFIED SPEAKER: Yeah.

MS. BEHLING: -- and I will make -- one additional comment is based on what I'm seeing in the control documents, this procedure has not been revised. It's -- it's -- it still exists in its rev. 0 format.

MEMBER KOTELCHUCK: Just for the new board members, this is

precisely -- this is called finding two that's on your screen, the benefit from a flowchart keyed to text selection. This would now be called an observation. This is a clear observation. Nobody is suggesting anything is wrong, but it would be nice and helpful, and that --

UNIDENTIFIED SPEAKER: It would improve it.

MEMBER KOTELCHUCK: Right. And that is the essence of observation. But, as Paul said, we didn't have that distinction in the past. We do now.

MS. BEHLING: Correct.

CHAIR ANDERSON: We're probably confusing you more than --

UNIDENTIFIED SPEAKER: Some.

CHAIR ANDERSON: So, with that, we're going to approve what the committee did, and it's gonna be put into the system to be tracked. So, with that --

MEMBER BEACH: And -- and this -- this closed out.

CHAIR ANDERSON: Yes, this closed out.

MEMBER BEACH: For ORAUT-5.

CHAIR ANDERSON: Yes.

MEMBER BEACH: ORAUT-7, rather. Yes.

CHAIR ANDERSON: Okay. All in favor, aye.

(Voice vote taken.)

CHAIR ANDERSON: Thank you.

MS. BEHLING: Okay. Now we're ready, we'll move on to our program evaluation reports. And you've heard a little bit about this from Bob Barton yesterday. This -- this first one we'll talk about is OCAS-PER-003, which is the evaluation of the effect of adding ingestion intakes to the Bethlehem

Steel cases.

And just a little bit about the PER process, when NIOSH makes changes to any documents -- and I'm -- I apologize if I'm repeating myself, but I do want to make mention of it.

The -- NIOSH typically, in most cases, will if there if there are any -- if any dose reconstructions would be impacted that it would increase the dose based on that change, they issue a PER. And so, that's what this whole program evaluation report process is about, is ensuring that any previously adjudicated cases that were under 50 percent POC, if they may be impacted by this change, they are reevaluated. So in this case, we're looking at -- at Bethlehem Steel cases, and the fact that they added ingestion intakes. That prompted NIOSH to have to go back and review the impact of those changes.

So, this PER was issued in January of 2005. And rev. 1 added uranium through the ingestion pathway. And the ingestion intakes are calculated using a fixed percentage of the inhalation intakes. And these -- this will increase dose -- this dose will increase -- will vary for each of the organs.

So SC&A review -- submitted our review of PER-3 in October of 2007. And this was actually one of the first PERs that SC&A reviewed. We identified four findings, and those findings were discussed at the December 2008, and again, May 2016 subcommittee meetings. SC&A's protocol -- and I'll get into this a little bit more. You'll hear too much of it, I'm afraid -- prior to June of 2007 -- again, this was under the old way of doing things -- did not require, what we call, subtasks for case reviews. And I'll discuss that in a little bit more detail as we move through. So, but, in June of 2007,

SC&A was asked to prepare or develop a separate protocol for reviewing PERs, and thereafter, we have now four different subtasks, as you were briefly instructed on yesterday.

Okay. So finding one of our -- the PER -- the PER title -- and again, remember this is our first PER that SC&A reviewed -- and the PER title is misleading because it does not solely deal with ingestion. It also requires the calculation of POC and includes updated -- updated occupational medical dose. And NIOSH responded -- and something that we're all fully aware of now -- that when a case is reworked for any reason, any current guidelines are used. So, for this case, the medical doses had been revised in OTIB-6 most likely, and that's our occupational medical OTIB, and the change was reflected in this rework. And so, SC&A agreed with that response, and the subcommittee closed the finding.

Finding two, the PER does not specify which inhalation -- inhalation intakes were used to determine the annual percent increase from inhalation. The TBD actually lists both high-sided and low-sided estimates for inhalation. And so, that was our question. And NIOSH responded that they used the high-sided -- high-side inhalation estimates for calculating the ingestion intakes. And that response satisfied both SC&A and the subcommittee, and the finding was closed.

Finding three: the PER lacks a clear explanation of methods used to produce a more precise POC, and if that information was included in the IREP user's guide, it should be referenced. We also stated a better explanation of the average value should be added. NIOSH agreed that the IREP user's guide should be referenced. And, therefore, in this case, the

subcommittee did change the finding status to in abeyance until the TBD is revised.

Now the follow up for finding three at the May two thousand six -- 2016 subcommittee meeting, NIOSH questioned the need for introducing this reference into the TBD and -- and going through their lengthy process of -- of making a TBD change. And at that point, since the process of calculating a POD -- a POC is standard proto -- protocol that we became aware of, and that the dose reconstructs -- yeah, dose reconstructors are very familiar with it, SC&A agreed that adding the IREP user guide reference would have -- would not have any significant impact on the TBD, and the subcommittee agreed and closed the finding.

And finding four: SC&A discussed finding four which states that absorption type S appears to be most claimant favorable for all organs, except the respiratory tract, the extrathoracic one. And at the December 2008 meeting, NIOSH was not prepared to respond. Therefore, in this case, the subcommittee kept the finding open so it would show in BRS -- in the BRS as open. Today we might put that in progress. I think at that time it was -- remained open.

And then the follow up to finding four, it was subsequently addressed at the May 2006 subcommittee meeting. And, at that point, NIOSH had reviewed all the reevaluated cases associated with this PER, and they determined that there were no cases that involved ET1. And although SC&A did not have access to the complete list of the reworked cases, we accepted NIOSH's response, and the subcommittee closed the finding.

And that is my presentation on PER-003. Any questions?

CHAIR ANDERSON: Any questions or comments?

MEMBER POMPA: Josie, I have a question. This is David Pompa. There was a comment earlier as how was the fixed percentage of inhalation intake for uranium determined?

MEMBER BEACH: That on --

MEMBER POMPA: I think we, 001, talked about a percentage rate -- a percentage of inhalation intake.

MEMBER BEACH: Yes. Did -- did you catch that, Kathy?

MS. BEHLING: Yes.

MEMBER POMPA: How was that determined? How did you come up with the percentage or...?

MS. BEHLING: That's NIOSH's determination.

MEMBER BEACH: That -- I was gonna say that. Yes. Tim's coming to the mic.

DR. TAULBEE: Can you repeat that question, please, to start?

MEMBER POMPA: You want me to?

DR. TAULBEE: There was a comment about fixed percentage of inhalation for uranium, how was that determined. It just says fixed percentage.

DR. TAULBEE: Okay. I'm trying to find that here on the slide.

MEMBER POMPA: I think just prior on 001.

UNIDENTIFIED SPEAKER: Which are we...

MS. BEHLING: Okay.

DR. TAULBEE: Kathy, can you -- is this from PER-3?

MS. BEHLING: Yeah, we're -- yeah. If you go down to bullet, maybe,

five, ingestion intakes will be assessed based on a fixed percentage of the inhalation intake. That's how you determine what that ingestion intake was going to be in that -- that was in the Bethlehem Steel TBD is what we're referring to.

DR. TAULBEE: Okay. I'm actually going to have to get back to you on this one. Let me go look that up, and we'll get back to you, sir.

MEMBER KOTELCHUCK: Tim, if I may, based on the dose -- dose reconstruction reviews subcommittee, inhalation rate is usually determined by the nature of the type of work that the claimant does, whether it's heavy work, moderately light, light, or very light. So the inhalation rates are really determined by the estimate of what kind of job the person was doing for the period of time that they seek a claim.

DR. TAULBEE: Right. I believe this question, though, is with the ingestion rate, which is pulling off of that inhalation rate that you just talked about, Dr. Kotelchuck.

MEMBER KOTELCHUCK: Right. No, the ingestion rate, I don't know.

DR. TAULBEE: And but --

MEMBER KOTELCHUCK: -- but inhalation rate, I thought was the issue.

MEMBER BEACH: No; it's ingestion.

DR. TAULBEE: And so, what I want to check is -- OTIB-9 is what we currently use, from that standpoint, but I --

MEMBER KOTELCHUCK: Right.

DR. TAULBEE: -- want to go check the Battelle TBD, to see if that same methodology is in there. So give me a few minutes and we'll get back to you, sir.

MEMBER BEACH: Okay. Thanks, Tim and David. Any other questions? We'll go ahead and hold the vote on this one if -- if that seems reasonable.

CHAIR ANDERSON: Yeah.

MEMBER BEACH: And if there's no other questions, we can move on and come back to that.

MS. BEHLING: And I -- I will -- just to make another comment. And it's something I'll discuss in more detail when we get to other PERs. One of the things -- and certainly your questions should be answered -- one of the things that we do in this process is we also make sure that we -- SC&A is always tasked with going back and reviewing all the technical documents that were associated with this PER, and that led to the issuance of this PER. So I could pretty safely say that SC&A -- in fact, I -- SC&A reviewed Bethlehem Steel over and over. I mean, we had a lot of reviews on all the changes that were made on the Bethlehem Steel site. So just to reassure you that that -- those technical documents are looked at. If they're not looked at previously to the issuance of the PER, during the PER process that we have in place now, that does happen. So just wanted to make mention of that.

MEMBER BEACH: Thank -- thank you. Good clarification.

MS. BEHLING: And so, we're going to move on. I'm sorry.

MEMBER BEACH: Yes, yes.

MS. BEHLING: Okay. All right.

MEMBER CLAWSON: Did you vote?

MEMBER BEACH: We're -- we're going to come back and vote after

NIOSH gets a chance.

MS. BEHLING: Okay. All right. And this -- bear with me because this one's going to go on for a little while. We're --

UNIDENTIFIED SPEAKER: (Indiscernible.)

MS. BEHLING: Okay. We're -- we're -- what -- we're going to discuss two PERs. Did you -- was there a question? I'm sorry.

MEMBER BEACH: No.

MS. BEHLING: Okay. We're gonna discuss two PERs that are associated with the Huntington Pilot Plant, which, as you can see here, is also referred to as the Reduction Pilot Plant. And those are PER-25 and PER-33. And SC&A reviewed these PERs in one report. We were tasked to put these two PERs together and issue a report as one report, and that was in July of 2013. And, again, the blue underlined wording here will take you to a link to that, a full -- a full report.

Okay. A busy slide here, but this is -- is providing a history of the Huntington TBD -- I'm -- yeah, TBD, and the associated PERs. The original TBD was issued in October of 2003. And it was issued as an Oak Ridge Associated University Team document, and that was a ORAUT-TKBS-4. And that was revised in January of 2004. This revision prompted PER-25 in September of 2007, which evaluated the addition of electron dose that was added to that technical basis document. Then in August 2008, the TBD was rewritten as an OCAS. It used to be the Office of Compensation, Analysis, and Support. Now it's the division, but then it was the -- an OCAS document.

And this revision intakes for total uranium, Plutonium-239 and

Neptunium-237 were added. That revision prompted the issuance of PER-33. Then in 2013, the TBD was again revised to add intakes of Americium-241, Thorium-230, and tech-99. And that prompted an increase in dose, and so PER-66 was issued.

Now, SC&A's reviews of these -- of these documents are listed on this slide. The initial -- initially, we performed a review of the ORAUT TBD rev. 1, and we did that as part of our eight set of dose reconstruction audits. And this was actually done under the subcommittee four dose reconstruction reviews.

And during that review, that -- this was atypical. Back then, the sub -- the board wanted us to take a better look at some of these TBD documents as part of the dose reconstruction process, and we did that as an attachment. It was considered an advanced review. We only did that in -- in a few cases, Huntington and Bridgeport Brass, a few of those cases we -- we did that type of thing, then we started reviewing these independently.

But as a result of that review, we did identify 12 findings. And thereafter SC&A was tasked to perform a focused review of the then OCAS TBD to determine if the findings that were identified in their eight-set review were actually addressed. Then certainly, thereafter, in June of 2013, we were tasked to perform a full review, not just focused, but a full review, of the OCAS-TKBD -- BS, technical basis, 0004. And today our discussions are focused, you know, on the two thousand and -- or two thousand -- or 2013 review of PER-25 and 33 because at our August full-board meeting we discussed PER-66, and that was -- that was approved during -- during your last full board meeting.

Okay. A little history of the Huntington Pilot Plant. And as I mentioned, it's also known as the Reduction Pilot Plant. The covered periods are 1951 through 1963, and again, 1978 through 1979. And their function was to supply nickel powder that was used to make gaseous diffusion barriers for Paducah and Portsmouth. And the feed materials were nickel out -- oxide and barrier scrap that was contaminated with uranium and associated radionuclides from the uranium enrichment process.

So, we finally get to PER-25, which is the Huntington Pilot Plant revision. It was issued in September of 2007, and it determines the impact of changes to the ORAUT-TKBS-0004, revision 1. And the revision added external electron dose and therefore it impacted just adjudicated cases with specific cancers associated with the skin, the breast, and the testes.

And PER-33 -- again, here's the title of the Reduction Pilot Plant -- was issued in December of 2011. And this determines the impact of changes introduced in the OCAS TBD. And that revision increased operator inhalation intakes from 3.8 pCi/day to 44 pCi/day. However, the revision also made changes to other exposure pathways, and those changes actually decreased doses in this revision.

So here's where our new protocols came into play. And we have four subtasks. And subtask one is the assessment of NIOSH's evaluation of the issues prompting the PER, and their potential impact on dose reconstruction. And under this subtask, SC&A reviewed two technical changes to -- to applicable divisions -- yeah, revisions of the TBD. And we were able to confirm that the electron doses were added in the ORAUT TBD as addressed under PER-25. And we also verified that the operator inhalation intakes in --

increased, as described in PER-33. So, we had no findings under our subtask one review.

Subtask two. This is where we assess NIOSH's specific methods for corrective action. And here's what I was mentioning earlier, and here's where SC&A reviews the technical guidance that -- leading up to the issuance of the PER. And in this case, SC&A, as you previously saw, had already reviewed all the TBDs. Therefore, under subtask two in that case, we simply summarized those reviews, and we confirm that the correction act -- corrective actions stated in the PERs properly addressed the TBD revisions. So we did them, and we were able -- then, therefore, we had no findings under subtask two.

Subtask three. We evaluate the PER stated approach for identifying the number of dose reconstructions requiring a reevaluation of dose. And for PER-25, NIOSH identified only one case for the target organs that -- only one case that was adjudicated with a POC of less than 50 percent. And SC&A, at that time, searched NOCTS, and we were able to verify that -- that only one case was impacted. SC&A confirmed that NIOSH did rework this case, so we had no findings under subtask three for PER-25.

Now on to PER-33. Here, NIOSH identified 32 cases with POCs of left --less than 50 percent prior to the TBD revision and employment between the covered periods. So NIOSH reworked -- rework of these cases: 12 cases resulted in a higher POC, the POC decreased for 20 cases, however, none of the reworks resulted in a POC of greater than 50 percent. Again, SC&A used NOCTS to verify that there were 32 cases impacted. We did verify that NIOSH reevaluated all of those cases and there were no findings under our

subtask three for PER-33.

Now subtask four, here's where we recommend conducting an audit of a sample set of dose recon -- yeah, dose reconstructions affected by the PER. And for PER-25 it was pretty simple. There was one case that was re-evaluated, and so we logically recommended that we review that case. Under PER-33. We -- yeah, SC&A recommended selecting cases based on the criteria that was internal dose assigned during the covered period. And shallow dose was assigned to the hands and forearm for equipment operators or maintenance workers also during the covered employment per -- or the covered period for this site.

SC&A -- what happens thereafter is we -- we write up a subtask four report. And we submitted this subtask four report for PER-25 in December of 2013. And that report was PA cleared and is available on the NIOSH website, however, highly redacted. So we presented our findings of the one impact -- impacted case at the February 2014 subcommittee on procedural reviews meeting.

A review typically only focuses on -- we were asked to only focus on doses that are addressed in the PER. We sometimes do have some latitude there if it's a best estimate case or as we're going through the case if we see something that is -- there are significant differences between the -- the original and the revised, we do have some latitude to go ahead and look at that if we feel that the -- the advisory board would be interested in seeing or be asking the question as to why that was. So in this case, we only reviewed though the calculated shower dose, and SC&A had one finding.

So for the new board members, I -- I'll just make mention that when

we discuss these case reviews, we must be cautious about the amount of details that we provide due to privacy concerns, obviously. In this case, as I mentioned, the PA-cleared report is available online.

So, but, for a brief -- just a brief background of what I can say, the EE, the energy employee in this case, obviously worked at Huntington Pilot Plant for numerous years during the covered period. There were no records of external or internal monitoring. And the EE was classified as a production worker, and that -- there were only a very -- several -- there were only several classifications as -- of workers, so it doesn't identify anyone in particular, and was diagnosed with a qualifying cancer during -- during the employment period.

Okay. Here I provide -- since I -- I can't state the -- the assigned doses, this slide provides just a percentage of the differences between the reworked D -- DR and the original DR. And, as shown, all the dose categories, except internal, increased, resulting in an increase in the POC. And I have to make a correction here. I had -- I -- it was -- it's actually -- it did not make an increase in the POC, the POC decreased. And I apologize. I made a mistake on this slide, okay, pretty much.

Okay. Four. The original dose reconstruction was performed in -- back in 2003 under the ORAUT technical basis document. There was no -- there were no shallow doses assigned because the TBD didn't recommend it at that time. And for the rework of this dose reconstruction, it was reworked not only for the addition of the shallow dose, as addressed in PER-25, but also because the employment dates changed. The rework also assumed that the EE was a production worker. However, NIOSH did not assign the shallow

dose in this case. And so, that, obviously, became our first finding. This worker had potential for a shallow dose, and we felt he -- it -- the case was pulled for PER review, but it was not -- a shallow dose was not assigned. And NIOSH agreed, but they also stated that correcting this error would not impact the compensability decision. So, therefore, no -- they felt that no further action was necessary. And the subcommittee agreed and they closed the finding.

Now for PER-33, we reviewed two cases. Our subtasks full report was submitted in January of 2014, and we presented our findings to the subcommittee in February two thousand and -- at the 2014 meeting. The case reviews evaluated shallow dose of the hand and forearm as well as internal dose, and we had no findings.

Again, a little background of case one. Employee worked there for several years, worked throughout the site. There were no records, monitoring records, for internal or external dose, and the cancer was diagnosed numerous years after the employment termination.

Here's our comparison table. As you can see, external photon and electron doses decreased while occupational medical and internal dose increased, and this resulted in a decrease in the total dose and POC because the external photon and electron doses dominated the dose -- the dose for this particular case.

The -- and for case one, the original was performed in 2004, and it was done as an overestimating approach to calculating dose. And internal dose was calculated using the intake values from the ORAUT TBD Table 5. Doses were calculated using our chronic annual dose workbook, and the

result -- and resulted in assigning a dose of -- a very modest dose of less than 10 millirem.

For the shallow dose to the hand and forearm, it was assigned based on guidance in the ORAUT TBD. I have -- I have OCAS there -- that's incorrect. It was also the ORAUT TBD that was in place at is -- it was assigned .85 rem based on that, the ORAUT TBD, and these doses were entered into IREP as electrons greater than 15 keV. That was what was done for the original.

For the rework. for case one, the doses were calculated using production worker inhalation and ingestion values from Table 5 of the OCAS TBD. Again, CADW was used to calculate the internal dose for total uranium, Plutonium-239, and Neptunium-237. And NIOSH -- as specified in the TBD, NIOSH could -- compared absorption types from Table 5, and selected one -- the one that produced the higher dose. And this resulted in a total internal dose of a little bit greater than -- or less than 100 millirem. For the shallow dose, the annual shallow dose had been reduced significantly in the OCAS TBD and was based on values in Table 6. And this shallow dose represents a significant decrease, like I said, from the shallow dose in the original TBD.

So SC&A's review, we concurred that the EE should be classified as actually a nonoperative worker, not production worker. We verified that NIOSH selected credit -- correct inhalation and ingestion values, and we confirmed that the selected solubility typed in produced the higher -- the higher dose. We were also able to verify that all values were appropriately entered into CADW. And we confirm that the correct shallow dose values

were assigned and correctly entered into IREP. Therefore, we had no findings with the rework of case one.

Okay. On to case two. Again, the EE worked for many consecutive years at the Huntington Pilot Plant, and worked throughout the -- the plant. There were no monitoring records and the EE was diagnosed with a qualifying cancer during the employment period. Table -- again, soon as you go to that -- although occupation -- or although external and occupational medical doses decreased, the internal dose significantly increased, resulting in the total dose and POC to increase. And this increase was due to the addition of the various radionuclides, the uranium, plutonium, and neptunium, which was the reason for the issuance of PER-33.

Now, for the original for case two, again, performed in 2003 as an overestimate, values were again taken from the ORAUT TBD Table 5, CADW used again, and this resulted in a dose of greater than 2 rem. For the rework, they used production worker inhalation and ingestion intake values, again, from the OCAS TBD. Doses were calculated for the added radionuclides using CADW and the Table 5 recommended solubility types were compared again and the higher used. And this resulted in a -- the assignment of greater than 18 rem for the total internal dose. And SC&A's conclusions, again, as with case one, we agreed with all of NIOSH's assumptions, and we were able to confirm the appropriate values were used to assess the internal dose, and so we had no findings with the rework of case two.

And my apologies, but this was a long one it was two PERs put together. And when we go through the process of looking at case reviews,

these can get a little bit lengthy. So thank you for bearing with me here.

MEMBER BEACH: No, Kathy. We appreciate your explanation on all of them also. Any questions on PER-25 or 33 and the process?

MEMBER KOTELCHUCK: No. It's good -- good to see that the reworks worked out to really confirm that they -- they --

MEMBER BEACH: Okay. Anyone --

MEMBER KOTELCHUCK: This is a very complex interrelationship with various -- I think there was plenty opportunity for whoever was doing it to make a mistake.

MEMBER BEACH: Correct.

And, Kathy, you did a great job explaining the increases and why.

So, anybody online have any comments or questions?

MEMBER CLAWSON: Josie, this is Brad, I don't.

MEMBER BEACH: Okay. Thanks, Brad. We'll move to a vote. For PER-0025 and 00 -- or 033.

Andy, that's --

CHAIR ANDERSON: Okay. All -- all in favor of accepting it?

(Voice vote taken.)

CHAIR ANDERSON: No opposed, I guess.

MEMBER BEACH: Okay. Let's move back to slide 20. I think, Tim, were you able to find that information?

We'll go back to slide 20, Kathy, if you don't mind, and answer that question.

DR. TAULBEE: Yes.

MEMBER BEACH: Hopefully.

DR. TAULBEE: To answer your question shortly. Let me get to where it was quickly. Several things have happened since PER-3 that I want to briefly mention here. Number one is this is our third PER, and this was done in 2005-2006 type of time frame. In 2010 we made Bethlehem Steel an SEC, so this goes back to prior, you know, from that standpoint, and --

MEMBER BEACH: Sure.

DR. TAULBEE: -- the GPD had -- was updated in 2010. So what we -- what I was able to quickly get to is the 2010 version.

MEMBER BEACH: Thank you.

DR. TAULBEE: So but to answer your question of what it is that the TBD does, from this standpoint, is that we looked at the air concentration rates, along with surface contamination rates, and came up with a fractional rate of ingestion, based upon that surface contamination. I'm sorry, we came up with a ratio between the air concentration and the surface contamination to determine what that fractional rate was, based upon a distribution within RES RAT where we use the highest end, the highest value. And that's what the TBD is currently talking about, is that we look at the air concentration, and we apply a factor to estimate what that ingestion rate is.

If you look at some of the methodology in OTIB-9 now, we would just use that surface contamination data.

Does that answer your question, sir? Okay, thank you.

MEMBER BEACH: Thank you. And thanks for the question.

And it is, as we described, complex, and these do go back quite a ways. So, appreciate the questions.

And thanks, Tim, for digging that out.

So, can we go ahead and take a vote on --

CHAIR ANDERSON: Yep. All in favor of accepting this --

MEMBER BEACH: PER-0003.

CHAIR ANDERSON: -- OCAS-PER-0003?

(Voice vote taken.)

MEMBER BEACH: Okay, Kathy. You had a brief break. Now it's time for PER-038.

MS. BEHLING: Okay. You-all will be happy to know this is the last one.

MEMBER BEACH: A long one.

MS. BEHLING: It a long one, so bear with me. Okay. This is DCAS now, PER-38. And it was issued in July of 2012 to assess the impact of changes to the Hooker Electrochemical TBD. And the TBD guidance was initially provided in the Battelle TBD-6001 Appendix AA. And in 2011, NIOSH published a standalone TBD which became DCAS-TKBS-0009.

During this transition, NIOSH revised uranium intakes, which increased dose to nonoperators for the operational years, and this shallow dose intakes increased for all job categories during the residual period. The DCAS-TBD was revised in June of 2011 to correct errors in Tables 2, 3, and 6. And the corrections caused the external dose to operators to decrease during the operational years.

So SC&A's subtasks one through three review was submitted in May of 2013, and we had no findings. Our report was discussed with the subcommittee at the November 2013 meeting. And our subtask four report

was submitted October 2014, and we had no findings. The case review report was presented to the subcommittee at the November 2014 meeting.

So, again, subtask one which is assessing NIOSH evaluation of the issues, prompting the PER and their potential impact on DRs, SC&A compared the changes and the applicable revisions of the TBD, and we were able to confirm that the uranium intakes and shallow-dose rates increased for the stated job categories and time frames, and that there were no doses or intakes that increased in the rev. 1 -- the rev. 1 TBD. So we had no findings under subtask one.

And subtask two, here's where we --

(Whereupon, there was an interruption when a board member speaks with an individual unmuted from the audio.)

MS. BEHLING: -- corrective actions. And under this subtask, we reviewed the applicable guidance documents, and SC&A did review the Battelle-TBD-6001 Appendix A in September 2010, and that is available online. And we reviewed the DCAS-TBD in March of 2013. And, again, that is available in a PA-cleared version.

There were six findings identified as a result of the DCAS TBD review. And these findings were actually resolved under the purview of the uranium refining atomic weapons employers' work group that was specifically assigned to them. And as part of the subtask two, SC&A did confirm that PER-38's corrective action -- corrective actions were properly addressed in the modifications of rev. 0 and rev. 1, so we had no findings under subtask two.

And I will make mention also, typically -- David Allen (ph), I think,

confirmed this before he left -- all of the PERs are typically reviewed under the procedure subcommittee, even if the technical documents are reviewed elsewhere. It's usually the procedure subcommittee that reviews the PER.

Okay. Subtask three, this is where we evaluate the approach for identifying the number of post reconstructions that were -- needed reevaluation. And NIOSH identified two populations of potentially affected cases. Both populations included cases with POCs of less than 50 percent, and the previous DR was approved prior to April 4, 2011 -- '11, which represents the issue -- issue date of the TBD rev. 0.

Population one also included EEs with employment during the residual period, and they were diagnosed with a qualifying -- not -- nonqualifying cancer, as I've listed there -- and apologize -- that is impacted by shallow dose. And this resulted in them identifying 14 findings. And for population two, it -- the -- it also included cases where the EE worked during the operational period. So NIOSH is -- NIOSH identified a total of 53 cases that potentially needed to be reworked. However, 33 of the cases were eliminated, because the Es -- the EEs in those cases were assigned to the operator category. The remaining 20 cases will be reevaluated by NIOSH. The rework of these cases resulted in nine cases that were less than 45 percent POCs, and one case that fell between 45 and 50 percent POC.

SC&A agrees with NIOSH's selection criteria, and we determined that these criteria will encompass the -- the universe of potentially affected cases. We verified that none of the reworks exceeded 50 percent; and, therefore, we had no findings under the subtasks three review.

(Whereupon, there was an interruption when a board member speaks

with an individual when unmuted from meeting audio.)

DR. ROBERTS: Hi. It appears that someone's not on mute. Maybe, Brad? Is that you? Maybe you just want to go on mute?

MEMBER CLAWSON: No, I'm on mute. I just tapped on mute just to make sure.

MS. BEHLING: Okay.

DR. ROBERTS: Yeah, okay. I think we're good.

MS. BEHLING: Okay. Thank you. And then moving on to subtask four, here, initially, SC&A recommended that the case reviews be deferred until the TBD findings were resolved. The six findings that were initially identified -- but ultimately, the advisory board and the subcommittee selected three cases for our review. So SC&A submitted our review of those three cases in October of 2014. And the review evaluated the rework of external and internal dose in this particular case.

In these cases, we determined that NIOSH documented their recalculated doses and resulting POCs in a one -- usually one- or two-page Word file. And this was the first time that SC&A had encountered this approach for reworking these cases, because typically, they did a full -- a full report. So we did report that back to the subcommittee, and to the DFO, and it was determined that we shouldn't just use the data that they provided, and NIOSH said that -- that they -- the internal evaluation method for these cases, since it didn't result in a POC of greater than 50 percent, they concluded that there was no formal dose reconstruction revision needed, and -- and it didn't need to be submitted to the DOL. So that was accepted.

I'm sure they -- it was an efficiency approach. Why do another dose reconstruction if you don't have to. So we just took the data that was listed in their one- to two-page report, and we based our assumptions -- and we did our review based on that data. And we always had access to Dave Allen (ph) and NIOSH if we had questions along the way.

So, the background for case one, again, the EE worked during the operational period and a portion of the residual period, and worked throughout the site, and there were no internal or external monitoring records found. And the D -- the EE was diagnosed with qualifying cancer after termination of employment.

Okay. Here's our table of comparison of doses. And external doses decreased, however, the internal dose represented the higher dose. So the 77 percent increase also resulted in an increase in the total dose and POC.

Okay. The original dose reconstruction for case one was completed in 2008. And, again, used overestimating approach to estimate dose. The EE was assumed to be nonoperator job classification. And then, therefore, external doses were based on that job category, and take -- and data was taken from Table AA.3 of the Battelle TB -- TBD -- yeah, TBD.

External doses were multiplied by the appropriate exposure to organ dose conversion factor from the implementation guide 001, which is the external dose implementation guideline. These doses were entered into IREP as 100 percent 30 to 250 keV photons. And this resulted in the assignment of approximately 2 rem of external dose.

For the rework, NIOSH assumed that the EE was an operator, and this was done as a claimant-favorable assumption. Dose values from handling

source material and contamination were taken from Table 5 of the DCAS TBD for the operational period. External doses for the residual period were extracted from Table 6, and the rework also applied the exposure to organ DCS from IG-001 and assigned doses as 100 percent 30-250 keV photons. Due to a significant reduction in the external dose rates of red -- in rev. one of the TBD, this resulted in only a total dose assignment of less than 100 millirem.

Okay. For internal dose for the original, there were no bio -- bioassay records, but the original DR assumed that the EE directly was involved in uranium operations and source material was inhaled and ingested. And the internal intake values for a nonoperator are what was considered in that TBD plant floor low were taken from Table AA.1. Doses were calculated using IMBA and assuming claimant favorable type-S solubility and the reas -- this resulted in the assignment of nearly 8 rem.

Now, for the rework, the inhalation and ingestion values were taken from the DCAS TBD for operational and residual periods. Again, the -- this TBD was revised, and the comparison of solubility types M and S was performed using IMBA, and it was determined that type S resulted in a higher dose. Annual photon -- Alpha doses -- I'm sorry -- and were entered into IREP as constant values, and this resulted in an interval dose of greater than 14 rem.

So SC&A's assessment of internal and external dose, we were again able to confirm that the appropriate operational and residual intake values were used. The only thing we did note is that there was some deviation from the TBD guidance where contamination dose distribution was supposed

to be entered as 80.3 percent less than --

MEMBER BEACH: Kathy?

MS. BEHLING: Yes?

MEMBER BEACH: Hi, sorry. It sounds like we missed a little bit of what you were saying on this one.

MS. BEHLING: Okay. I'm sorry. Can you hear me now?

MEMBER BEACH: Yes.

MEMBER CLAWSON: Yes.

MS. BEHLING: Okay. Should I just restart this slide?

MEMBER BEACH: Yes.

CHAIR ANDERSON: Yes.

MS. BEHLING: Okay. I'm sorry. Again, for SC&A's assessment of the internal and external doses, we were able to confirm that the appropriate operational and residual intake values were used. The only thing we noted is that the TBD specifies that the contamination dose distribution be entered into IREP as 80.3 percent less than 30 keV, 12.3 percent 30 to 250 keV, and 7.5 percent as less than 250 keV. However, the rework just assumed 100 percent 30 to 250 keV, and that is really, actually, a claimant-favorable assumption. And, as I said, this is at a time when NIOSH was recalculating these doses using a more abbreviated and claimant-favorable approach to attempt to determine whether this case was going to go over 50 percent or not, and then alleviate them from having to do a full-dose reconstruction.

So, for internal dose, SC&A verified that the correct inhalation and ingestion values were used. We confirmed that type-S solubility produced the higher dose and that the annual doses were entered into IREP

appropriately. So using the recalculated doses, SC&A reran IREP, and we confirmed that NIOSH's PO -- POC value was appropriate, and we had no findings with a rework of case one.

Okay. And on to case two. And I won't elaborate a lot on these cases because there's so much that is very similar. You can see here, the individual worked, again, during operational and -- and portions of the residual period. They -- this individual was in a non -- a nonoperator role. There were no monitoring records, and they were diagnosed -- diagnosed with the qualifying cancer numerous years after employment termination.

And here's our comparison table. Again, the rework resulted in very large increase in the internal dose that impacted the total dose and POC. Again, original post reconstruction used claimant-favorable assumptions and did -- did consider that the EE was a -- in a nonoperator job classification. All other assumptions were the same as in case one. And this resulted in a dose of less than 100 millirem.

For the rework, again, a job category of operator laborer was assumed for claimant-favorable reasons. All the assumptions were the same as for case one, so I won't elaborate. And that -- this resulted in a total external dose of less than 10 millirem.

For internal dose, there were no bioassay records and NIOSH, again, used all the same values and assumptions as in case one in the original that was pulled out of the Battelle-TBD-6001 Appendix AA, and this resulted in an internal dose of less than 1 rem.

Again, as you can see on this slide, all case two assumptions were the same as case one, and this resulted, again, in an internal dose of greater

than 13 rem. SC&A was able to confirm that all the values that were used were correct and that the assumptions were claimant favorable. Once again, we noted the contamination dose distributions as being different than the TBD but still claimant favorable. And so, we had no findings with the calculations for this case number two.

Case number three, our last case, this EE briefly worked during the operation period and through the entire residual period. Again, worked throughout the -- the plant but had no monitoring records and had a qualifying cancer diagnosed numerous years after termination. This individual had -- was diagnosed with two cancers, as you can see on the -- this table. Although cancer two internal dose increased several fold, the doses were modest and did not really impact the POC.

Okay. Again, the original DR used claimant favorable assumptions. The EE was classified as an operator. And the dose values in DCS were consistent with cases one and two, and that resulted in a dose of greater than 3 rem for cancer one and greater than 3 rem for cancer two.

The rework -- the rework for this case used the same parameters as for cases one and two. Operational doses were prorated in this case with part -- partial years of exposure. Cancer one also had an electra -- an electron component associated with it. And for cancer one, the photon doses were less than 100 millirem, and the electron doses were greater than 1 rem. For cancer two, the external doses for less than 100 millirem.

Okay. Again, for the internal dose, all the same parameters and intake values were used. The doses were calculated based on -- in this particular case, on type-M solubility, and that resulted in an internal dose of

less than 100 millirem.

And for the rework, intake values were taken from the appropriate tables in the DCAS TBD. There were three intake regimes used to calculate the dose. There was an operational inhalation, operational ingestion, and a residual inhalation intakes. They compared types M and S solubility with M resulting in the higher dose. The alpha doses were entered as constants into IREP, and this resulted in internal dose less than 100 millirem for cancer one and nearly 2 rem for cancer two.

Okay. And lastly, SC&A was able to confirm that appropriate operator and residual dose values were taken from the Table 5 of the revised TBD. SC&A's calculations matched NIOSH -- NIOSH's assigned dose. And, again, we just note that there was a difference in the dose distributions assigned by the rework, as opposed to what was specified in the TBD, but this was claimant favorable.

And SC&A's conclusion about the internal dose, again, we were able to confirm the appropriate values were used. We recalculated the doses, and we were able to match NIOSH's calculations. And we've -- even though the IREP doses were entered -- different than what was specified in the TBD, they were claimant favorable. And so, we reran IREP and we confirm NIOSH's POC values. So we had no findings with the rework of case three.

Finally, we are through PER-038, which was for Hooker Electrochemical.

MEMBER BEACH: Thanks. Just a quick comment for me. Having the procedures embedded into your slides was very helpful for questions I had, I was able to go back. And I really do appreciate the extra effort that you put

into that. Thank you.

Other questions, comments?

MEMBER KOTELCHUCK: Dave Kotelchuck. Kathy, if you go back to slide 74, there was a typo about the 7.5 percent -- the 7.5 percent was above 250 keV. It was just a typo.

MS. BEHLING: Okay. And which slide? I'm sorry, I didn't --

MEMBER KOTELCHUCK: Well, I was told that it was slide 74. I can't see --

MEMBER BEACH: Yeah, it's 74.

MS. BEHLING: Okay. And where did I make a mistake?

MEMBER KOTELCHUCK: Noted TBD the distribution 80 percent less than 30, 12 percent 30 to 250, and 74-5 -- 7.5 percent above 250. Of course, it was a -- it was a -- it was -- the sign is should be --

MS. BEHLING: Oh, oh, oh, --

MEMBER KOTELCHUCK: (Indiscernible) --

MEMBER BEACH: (Indiscernible) --

MS. BEHLING: Oh, okay. I'm sorry. Yes.

MEMBER KOTELCHUCK: And this is minimal, however, --

MS. BEHLING: You are -- you -- you are correct. I didn't --

MEMBER KOTELCHUCK: Yeah. And but more substantially, I'm concerned that there was a decimal point missing in a couple of slides down where you did the review when you gave us the percentages increase. There was one POC that you listed -- I think was around 76 or something -- 10-10 percent increase. I think there --

MEMBER CLAWSON: A thousand.

MEMBER BEACH: It's 1,000.

MEMBER CLAWSON: It was.

MEMBER KOTELCHUCK: 1,000 percent increase. That's -- I -- I just sort of did a little bit of the arithmetic, and I don't think -- I think there's a decimal point off here.

MS. BEHLING: Actually, it has to do with the -- and I can't say too much. It -- it has to do with the --

MEMBER KOTELCHUCK: Yes, I --

MS. BEHLING: -- the original dose being extremely low and the rework being much, much higher. And --

MEMBER KOTELCHUCK: Yes. And I --

MEMBER CLAWSON: (Indiscernible) --

MEMBER KOTELCHUCK: -- respect that. And I asked no more questions, but I do ask you just to check the arithmetic on that --

MS. BEHLING: I will do that, thank you.

MEMBER KOTELCHUCK: -- with the actual POC because I --

MS. BEHLING: Okay. And I will get that --

MEMBER KOTELCHUCK: -- work out and making -- making an assumption of a very small original POC.

MS. BEHLING: Yes. I will do that and get back to you.

MEMBER KOTELCHUCK: I think it's a decimal point, honestly. But we'll see.

MS. BEHLING: Okay.

MEMBER KOTELCHUCK: Thanks.

MEMBER BEACH: Any other questions, comments on this?

MEMBER POMPA: Josie, this is David --

MEMBER BEACH: David, --

MEMBER POMPA: -- Pompa. There was a comment that was made, there was no internal or external monitoring available, no data. Are we, as a board, concerned that there isn't any, or is it not our business that they didn't take care of that?

MEMBER BEACH: We're -- we're always concerned if there's no dose or records available, which are -- is there a specific slide you're referring to or...?

MEMBER POMPA: Well, it was mentioned several times, --

MEMBER BEACH: Yeah.

MEMBER POMPA: You know, so --

MS. BEHLING: This --

MEMBER ZIEMER: Well -- this is Ziemer -- keep in mind that there are also cases where there's no personal monitoring data. However, NIOSH has methodologies for determining or assessing dose based on other factors such as monitoring -- area monitoring data or source term data, air -- air monitoring, surface monitoring, and so on.

MEMBER POMPA: Yeah.

MEMBER ZIEMER: So, we often have cases such as this.

MEMBER POMPA: Well, let me --

MEMBER ZIEMER: -- particularly for individuals who were -- for example one of these --

MEMBER POMPA: Yeah.

MEMBER ZIEMER: -- is a clerical worker. They aren't monitored.

MEMBER POMPA: Let me refine my question. Is it our business to ask them why and to take corrective actions to avoid not having that data in the future?

MEMBER BEACH: We do that or we do discuss that early on.

And I think, Kathy, you were gonna say something here?

MS. BEHLING: I know --

MEMBER BEACH: I thought I --

MS. BEHLING: -- I was -- I'm sorry. I was just bringing up slides to show that, yes, there is -- I think all of these cases, in all of these particular cases for the Hooker Electrochemical, there were no external or internal monitoring. That's the things that we review when we go in and look at the TBDs. How are we assessing the internal and external doses when there are no monitoring records.

MEMBER BEACH: It's a good question. I can't answer it. NIOSH probably can give you an overview. But this does come up, which is why we have all the procedures and coworker models.

And Tim's coming up to the mic, so.

DR. TAULBEE: Yes, thank you. This one is another rather interesting case here of where reviewing a PER that is old for a site, that the PER -- where the TBD was updated, the PER was issued, and then an SEC was designated afterwards. And in this particular case, the SEC was designated because at the original TBD we were using surrogate data, and under the review -- the board reviewed that TBD and agreed that we could do dose reconstruction.

And then, upon appeal to the secretary, a separate panel that was discussed yesterday, reviewed the basis for this or that -- or why we felt we could do dose reconstruction and why you-all agreed with us. And they felt that surrogate data was not appropriate from that standpoint, and the secretary designated a class in this particular case. So, what you're looking at right now is all the PER that was done previously to this designation of an SEC class. And that was in September of 2015.

The TBD, we revised again in 2016, and then we issued a new PER, PER-081, for this exact site to address those changes to the TBD, looked at all of the cases. And then, in April of 2018, SC&A reviewed PER-81. And then last December, the board closed PER-81 associated with this site.

MEMBER FRANK: This is Arthur Frank. I -- I think what David is really asking, if I understand it, is since this seems to be a recurring problem where there are instances where there's no monitoring data, when that is seen in the review that this board does, is there any comment back to the site or to the installation where this data wasn't collected, that they really ought to have been collecting this data, or is that not part of our purview?

UNIDENTIFIED SPEAKER: That's really --

MEMBER ZIEMER: Let me answer that in part, and, Tim, you can add to it. Many of these sites don't exist anymore. We're talking about sites that worked decades ago for the -- in -- in the weapons program, that don't exist, or sites that -- where the information is not available, and even -- even our national labs, some of the early days, the data is not what it would be today, and they, of course, have since corrected it.

But, Tim, go ahead.

DR. TAULBEE: I was going to say exactly that. Many of these sites don't exist anymore, so there's nobody to go back to and, you know, recommend, you know, you should increase your monitoring gear from that standpoint. And if you think of over the time, monitoring has increased tremendously across the standards for who gets monitored and who doesn't. But there are times, you know, where there could be an opportunity where a -- a site may not be monitoring folks and -- and I don't know the board has ever weighed in on making a recommendation back to a site. But we haven't gotten to that situation yet, of a site that's still existing and still in operation, I guess I should say, that I'm aware of.

MEMBER BEACH: We might -- we might -- we may have some in the future. But yeah. These -- this is a tough one. And those are great questions, and we appreciate the questions. Like I said, we are going through a backlog. A lot of these are before I was even involved in procedures of trying to go ahead and cross our T's dot our I's and make sure we have a tracking and a system and what was done and how it was done. And so, that's the result of this -- what you're seeing today and the large volume. It's a lot of information. And appreciate the questions that -- hopefully that your questions were answered.

MEMBER FRANK: Well, what it is, what it seems, is that the board hasn't taken a view. I mean, I could hypothetically think of a situation of a currently functioning site that, let's say, somebody who is maybe labeled as a clerical worker who might not get a badge, who has to go out to the work sites and -- and see workers out there, even though they’re labeled clerical,

who gets exposure, but they've never been badged, and, you know, that may be a situation that still comes up. And the question, I think, that David was asking, and what I'm asking now, as well, is -- does this board, for those sites that are still operating, if we see such a situation where somebody has had exposure but was not badged, that we make a recommendation that they increase the badging of the people who may be exposed.

MEMBER BEACH: Can -- Paul, if you go back on to slide 70, that was one of the cases here. The original was a nonclerical, but they went back, and it was an operator. So, they made that correction in this presentation, also.

And, Paul, what?

MR. ZIEMER: Well, we can make that correction in terms of how we evaluate it. This board is not authorized and does not have the responsibility of telling DOE labs how they should operate, nor do we set radiation standards, nor do we determine risk values, or organ doses. Those are done by agencies that have that responsibility. So I would say for us to go back and say that a certain laboratory should do certain operations, that might be something DOE would have to take care of, in terms of -- and -- and there are federal regulations for -- for non-DOE labs, and there are -- like 10 CFR 835 for the DOE labs. Those set the standards on what they have to do on monitoring and that sort of thing. That's --

MEMBER KOTELCHUCK: Yeah. Make --

MEMBER ZIEMER: -- that's outside of our purview.

MEMBER KOTELCHUCK: Yeah. May I -- may I talk about the glass

being half full, not half empty? And we -- we -- our responsibility is to the claimants, that the government has said that people who worked in these jobs who got cancer with radiation exposure, they -- there should be some compensation. They set up a system. So, affirmatively, our responsibility, our key one, is fairness and equity for the claimants. Once the claims have been made and we've assessed them, we -- there -- there's no -- there's no particular function in saying going forward.

What -- what is a function is that if you look back at our SECs, many of our SECs cover periods up to the '70s and '80s. This is just my personal observation, that before the '70s and '80s, before we knew enough how to proceed, and what's responsible in terms of checking out people's health and an exposure, we gave SECs because they -- they weren't collecting the data.

By the '70s, it seems to me, we are big -- we are all understanding the -- look, we have to do a better job. And people started doing measurements and started giving people badges and things of that sort. And so, things improved. And, in fact, by the mid '80s, and by the '90s, we don't get as many SECs because people know -- people who are the responsible industrial hygienists and radio -- radioactivity of monitors, those folks, aren't doing the job that they were asked.

So -- so it is being taken care of, if you will. But, in a sense, there's no -- once we decide on a claimant, there's no going forward to -- to make -- make advice. I assume people there at the site, if the site is functioning, read the -- read our reports and read and understand why people are or are not getting their claims...

MEMBER FRANK: And I appreciate the glass sort of half full and the

system has been self-correcting to a large extent, it seems, over the years where things have --

MEMBER KOTELCHUCK: Yeah.

MEMBER FRANK: -- improved, and badging has gotten better. But, you know, we are an advisory board. You know, we don't make the determination of the regulations; DOE may do that, NIOSH, others, may -- may actually do the regulations, but, you know, everybody is a potential future claimant that might come to this board. And with that in mind, preventive measures, such as, if we see something that is, as this board thinks inappropriate in terms of noncollection of data -- and it may not have -- it -- it may truly not exist at this point. But I would hope that if we saw that, that we would make some comment.

MEMBER BEACH: (Indiscernible.)

MEMBER KOTELCHUCK: And certainly, NRC exists.

MEMBER BEACH: Of course. Good conversation --

UNIDENTIFIED SPEAKER: -- forward.

MEMBER BEACH: Yeah. So let's go back to PER-038. We've agreed that all subtasks have been completed, NI -- SC&A has reviewed and agreed, so are we ready to vote on this or do we have more discussion on...?

CHAIR ANDERSON: I think we can. I mean, I think one -- one of the issues, as you get to review individual cases and things, there's a lot goes into it. So, yes, they may not have been monitored, but the question is, when we do these dose reconstruction estimates, that question is would they possibly have had exposure sufficient to reach a 50 percent probability? So

that --

(Whereupon, a board member has a discussion with an individual while not muted from the meeting audio.)

CHAIR ANDERSON: -- a lot of these are reworked really down in a -- in a low exposure, because that's what the estimate is likely. And now, would we like to have them monitored, some people monitored -- and again, you look at the age of the individuals, a lot of these might currently be working, but they've worked for the past 40 years, as well.

So it's -- it's -- this is some -- just to see when issues have been identified, have they then been corrected in -- in the estimates going forward. And, again, early on, the estimates were done worst case. And you'll see, some of these when they came in, the pressure was to try to make a determination. You could either say well, based on the information we have, they were -- would never have gotten enough exposure. Now, we argue about is that an appropriate -- appropriate assessment that they could not have.

And then part of it is listening to the workers, to say well, was there a special event? And, again, on some of these sites, they haven't been able to read -- they may have had testing done, but they have been unable to recover any documents. So the workers may say, oh, yeah, we are tested, but nowhere is -- is there any records. And then, again, some of the laboratories were suspect. So, we've had to eliminate those.

So, but again, if we don't have any data, you can either say well, let's go -- I mean, for some of these sites, they start looking, and then oh, they identify there're 70 or 15 boxes of records. And then we have -- then

NIOSH has to go try and recover those and see what those -- would those have exposures in them. And you can't -- I mean, the board's sense for the workers is you can't chase these kinds of things forever. You have to pick a point and say well, we have to move on and make a decision on this. And that may well be an SEC kind of an issue.

So it's -- it's okay -- you're kind of coming in, and some of these issues that, you know, are complicated because of the -- 2008, I mean, that's a long time ago when some of these were looked at, so. But it's good that you raise the issues and -- and look forward to more discussion. I mean, we've -- we've had some of these discussions earlier in the -- this one is as -- you know, NIOSH made their -- on Hooker they made the determination they could do the dose reconstructions.

And the case they made of why they could to the board at the time, board said yeah, that -- that sounds reasonable. And then it was challenged, and a whole new group took a look at it and said how could you poss -- I mean, sort of, this kind of a thing -- how could you possibly say you can do dose reconstruction when there were -- there was no data.

And then they made that determination that the system has that built in, you can challenge our decision to either endorse what NIOSH did or at times we've disagreed, and said we don't think the data are strong enough to be able to do -- so that's partially what we spend a lot of time on, and especially subgroup meetings, is going over these kinds of things and coming back to the whole board to see how do we weigh that because we are making an independent decision.

So with that confusing comment, we appreciate your viewpoint, and I

will look forward to further discussion.

MEMBER BEACH: And we're looking to add members to the subcommittees, --

CHAIR ANDERSON: Yeah.

MEMBER BEACH: -- so if you're interested, let -- let Rashaun know. Any other comments out there?

MEMBER VALERIO: This is Loretta. I had reached out to Kathy, and she responded very quickly. When I was reading through the slides, I -- I had a little bit of confusion.

And if Kathy doesn't mind going back to slide 75, or starting at 75, I guess.

Okay. So for case two, it states that the employee worked in a nonoperator role.

So, Kathy, if you would, go on to the next couple of slides.

(Whereupon, a cell phone sounds.)

MEMBER VALERIO: Sorry, that was my phone. And, again, here on the second bullet, it says, you know, it was assumed that the employee's job category was a nonoperator. So, we'll go forward to the next slide. So on the first bullet here, it -- it kind of switched a little bit on me. And I was confused, being a fairly new member to this committee. It says that the employee's job category was an operator laborer. So, were they operator or nonoperator? That's the first question.

And then if we go on to the next slide. The third bullet says they use the internal intake values for a clerical worker. So my question was, and -- and I had to go back and read this a couple of times and get clarification

from Kathy -- one, were they an operator or nonoperator? That's the first question. The second question was if they used the internal intake values for a clerical worker versus the internal intake value for a -- for an operator, how would that effect the overall POC?

MS. BEHLING: Okay. To answer your first question, and I apologize if I didn't explain this more clearly during the presentation. This individual is a nonoperator. They are classified as a clerical worker. The reason that NIOSH on the rework assumed the individual was in the operator laborer category -- and one of the other things I'll make mention of, between the Battelle TBD and the DCAS TBD, these job categories changed. They changed from -- they used to say plant floor high, plant floor low, that type of thing, but there was only like four -- three or four job categories. The reason that NIOSH reworked the case using the operator dose is because it was more claimant favorable.

They wanted to ensure when they went through their internal rework process that they used claimant-favorable assumptions to determine will this case change -- will the compensation decision change on this particular case? So, in order for them to avoid having to do a complete rework -- and if that had happened, if they would have found that the POC was even between 45 and 50, I think they would have gone back and done a complete rework. But based on what they did internally, using claimant-favorable assumptions, they were able to determine that that POC would not change. So, I hope that --

Yes? Okay.

MEMBER CASSANO: I have a follow-up question to that then. If they

were considered a claim -- an operator laborer, why would they use the internal dose for a clerical worker who is obviously a nonoperator?

MS. BEHLING: What I'm showing here on this slide is the internal dose -- this was for the original dose reconstruction. They did go in and look at the type of worker this was and classify that worker appropriately, but when the rework was done, they -- they, again, used information and data. So what I'm showing here is -- this was the original, and the rework assumed that this -- this particular worker would have been exposed to higher levels. Does that make sense?

MEMBER CASSANO: Okay. It looked -- it was -- because of the chronology, it looked like -- because that slide came afterwards --

MS. BEHLING: Right.

MEMBER CASSANO: -- it looked like right now they were determined to be an operator. You were still using clerical worker internal intake.

MS. BEHLING: Yeah. I apologize for not going into more detail there. The original assumed the appropriate job classification. The rework assumed a more claimant-favorable higher dose, higher intake position or category, just in order to assure themselves that the POC was not going to go over 50 percent. And had that happened, they would have done a full-dose reconstruction report and submitted it to -- to DOL.

MEMBER CASSANO: Thank you.

MEMBER BEACH: Loretta, does that answer for you, too?

MEMBER VALERIO: That does and that's basically -- when Kathy responded to me, and she explained. So, I thank you, Kathy, for that, but I do see where there could be a little bit of confusion the way that it's

documented in the slide. But, thank you, Kathy, for responding to me and for clarifying that. I do appreciate --

MS. BEHLING: Okay, thank you. I -- I, again, I apologize, if I wasn't as clear as I should have been. You know, there's so many slides to go through, and so, I may have gone a little bit faster than I should have. But I'll -- I'll try to be more mindful of that next time.

MEMBER BEACH: No. It was a lot of -- and great clarification. Any other comments, questions?

CHAIR ANDERSON: So, we're going to approve to the review and the closeout of PER-030 -- no, --

MEMBER BEACH: 038.

CHAIR ANDERSON: -- 038. Right.

MEMBER BEACH: Right.

CHAIR ANDERSON: So the one thing you almost need to say is you had to be there with the discussion because the committee goes over this a lot and now we get kind of inundated with it. So it is interesting to sit in and listen to, which you certainly can, if you want. So, with that, we'll vote. All in favor say aye.

(Voice vote taken.)

CHAIR ANDERSON: Good. Okay. I didn't hear any nays. So, we're now -- we've adopted this and we're going to now go to lunch.

MEMBER BEACH: Yes.

And thank you again, Kathy.

CHAIR ANDERSON: We're going to --

MEMBER BEACH: -- a lot of --

(Whereupon, multiple attendees began discussions while unmuted on audio.)

CHAIR ANDERSON: And we're gonna do -- we don't have -- we don't need the full hour and a half for board work session.

MEMBER KOTELCHUCK: So, have we finished with Kathy's report?

MEMBER BEACH: Yes.

CHAIR ANDERSON: Yes. That was the last --

MEMBER KOTELCHUCK: Don't we have to have one vote on the record?

MEMBER ZIEMER: We voted --

CHAIR ANDERSON: We just did.

MEMBER KOTELCHUCK: We voted. We voted unanimously --

CHAIR ANDERSON: Each one --

MEMBER KOTELCHUCK: -- each one, okay.

CHAIR ANDERSON: Yeah. We don't need to combine them and vote again.

MEMBER KOTELCHUCK: Okay. We don't need them on the record in person for this. Okay.

CHAIR ANDERSON: If we combine them, then somebody may have a problem with one of them --

MEMBER ZIEMER: Yeah.

CHAIR ANDERSON: -- and it just churns. So that's why I like to --

MEMBER KOTELCHUCK: Sure, sure, sure.

CHAIR ANDERSON: -- do one at a time moving forward. Yeah. Okay. So now we're going to come back around two o'clock.

MEMBER ZIEMER: (Indiscernible.)

DR. ROBERTS: How about we do about 2:15 for the roll call for board members --

CHAIR ANDERSON: Okay.

DR. ROBERTS: --- just to give you the full time back, and we will take that time from the board work session.

(Whereupon, a lunch break was taken from 12:47 p.m. until 2:15 p.m.)

DR. ROBERTS: I'm going to start with attendance.

(Roll call.)

DR. ROBERTS: Okay, great. So we're gonna get started with the rest of the agenda, and I'd just like to remind people that if you're not speaking, just make sure you're on mute, either on Zoom or on the telephone. Also, you want to identify yourself before asking questions or making comments and please speak one person at a time. Thank you.

CHAIR ANDERSON: It's now, Chuck. Go ahead.

Special Exposure Cohort Petition Status Updates

MR. NELSON: Okay. Thank you, Dr. Anderson. I'll go ahead and get started here. Can you hear me out there in telephone land and computer land?

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Yes, we can.

MR. NELSON: Okay, great. Thank you. My name is Charles Nelson. I'll be doing the SEC update on the DCAS-SEC team lead. We do this update

at every advisory board meeting to update the petitioners, general public, and advisory board, just where we are with our SEC petitions. So we'll let you know how many we have in qualification, if they qualified, how many are under evaluation, or how many are currently with the advisory board, and any potential NIOSH-initiated SEC petitions, which we talked about yesterday, was there any 314s.

Okay. Petitions received to date: We have received a total of 260 petitions. We have no petitions in qualific -- in the qualification process. Thus far, we have qualified 153 petitions for evaluation. There are no new evaluations in progress. And right now, we have ten reports with the advisory board. We'll talk about those here briefly shortly. And there was 107 petitions, thus far, but that did -- that did not qualify for evaluation.

Okay. The first step. A petition under evaluation is Lawrence Livermore National Lab. It's from 1990 to 1995. This was a reserve period, so I -- I think we had some updates on this on the last teleconference meeting, but it's SEC petition 221 and the NIOSH team was able to perform an onsite data capture in September 2022. LaVon discussed it earlier. We were talking about classified documents, and we were able to get onsite, select some documents for retrieval. And currently, they're with the classification office at Lawrence Livermore. So those should be hopefully (indiscernible) sometime soon.

The next (indiscernible) the 10 SEC petitions that are with the advisory board. So the evaluation reports have been presented. They were submitted to the advisory board, and there's been, for many of these, a lot of work done. And so, the update for those are as follows: We had a

Hanford SEC-57. We closed all the SEC issues except those related to ongoing coexposure monitoring efforts. So the details on all of these, you know, if the workgroup members want to discuss them further in the advisory -- advisory board work session, then please, feel free to do so, but these are overviews.

The next one is Savannah River site SEC-103. And we're working on resolving issues by SC&A and the workgroup. There were five issues related to report 92, and I've seen some email traffic going -- trying to get a work group meeting set up for mid to late March. So that's just a projection at this point, I believe. Nothing set in stone that I know of.

Rashaun.

DR. ROBERTS: It was scheduled --

MR. NELSON: It was?

DR. ROBERTS: -- the March 22nd.

MR. NELSON: Okay. So that was prior to my presentation being completed. And I -- like I said, I saw lots of traffic. So, March 22nd. Okay.

Next one under advisory board review is Los Alamos National Lab, that's SEC-109. Again, we're working with SC&A and the work group. They've been looking over some reports 101 and 102. They were assigned to do a (indiscernible) work group meeting in 2022. And recently, here -- well, a couple of months ago, in September of 2022, we sent over a report 103, which was a review of potential exposures to exotic radionuclides using the radiation work permits. And so, that is over for review at the advisory board.

Next up would be Idaho National Lab, that's SEC-218. Again, working

with SC&A (indiscernible) work group to resolve issues. And, again, I guess that would be next week there's a data capture trip to INL, so that'll be for both I -- INL and ANL West.

So up next, INL West. Again, we're working with SC&A, NIOSH, and again, that data capture is going to encompass both of those sites.

Okay. Area IV Santa Susana, which is SEC-235. We've been working with the record center EMCBC, and they've been digitizing records and providing them to us, and it's quite a numerous amount of records. So we're going through each of those to try to resolve any remaining work group issues.

Metals and troll -- Metals and Controls is SEC-236. It's with the work group. SC&A completed a review of the proposed NIOSH dose reconstruction report. And we responded to issues that SC&A had, and then we received another paper from SC&A where they had recent things they wanted to discuss. So we're working on a response to their report. And we expect that to go to the work group here in January of 2023, so next month.

De Soto Avenue is SEC-246. And, again, it's similar to SSFL. We're working with the record center there in Cincinnati, EMCBC, and they've been digitizing the records and sending us -- those to us. And as we get them, we're going through them and trying to resolve the outstanding issues.

Y-12 is SEC-250. Addendum to the evaluation report was presented in August 2021 advisory board meeting, and SC&A was assigned to perform a review of that evaluation report.

And then lastly, not least, we have SEC-256. NIOSH discussed the evaluation report at the December 2021 advisory board meeting. SC&A was

assigned to perform a review of that evaluation report, and they're going to give us an update this afternoon on where they are with their review.

The next slides are just the individual sites that are awaiting action. So on the left side, you'll see the name of the site, the SEC number, and the date, the time period that's outstanding. So first up is Hanford for '84 to '90. That's prime contractors, Savannah River, there's two of them there. One of them was for the prime contractors outstanding time frame, the '72 to 2007, and the second one is for subcontractors for 1990 to 2007.

Next up we have the Los Alamos SEC-109, and the period standard is '96 to 2005. Idaho National Lab is '49 to '70. Argonne National Lab West is '58 to '79. We have Santa Susana is '91 to '93. Again, Metals and Controls is '68 to '97, that's a residual period. Then DeSoto Avenue, SEC-246, '65 to '95, and Y-12, SEC-250, is '79 to '94, and Pinellas is '57 to 1990.

Finally, we have West Valley Demonstration Project. There was an SEC issued after '69. We have a ton of data between '66 and '68 that we're going through to see if there's any potential SEC's or even feasibility. So that's currently in our house, we're working it. And that's all I have. Are there any questions?

Dr. Ziemer?

MEMBER ZIEMER: Chuck, could you go back to the Metals and Control slide?

MR. NELSON: Yes.

MEMBER ZIEMER: So, did SC&A raise some additional issues on Metals and Controls?

UNIDENTIFIED SPEAKER: Want me to address it?

MR. NELSON: You can since you're intimately familiar.

UNIDENTIFIED SPEAKER: Yes, we had -- we've had a number of back and forths between us and SC&A we've been in. And in, I think, February of this year, we had a work group meeting -- I think it was February. And we were in agreement on our dose reconstruction approach at that time; however, the -- there was another review done by SC&A at -- shortly thereafter. They identified some issues that we needed to look back into. And so, we're preparing a response to that.

MEMBER ZIEMER: So, these are additional issues that SC&A has raised?

UNIDENTIFIED SPEAKER: It is a -- basically, it is an independent assessment that was done by an SC&A team member that reviewed -- went back and reviewed and -- and identified some potential issues that they felt that had not been addressed.

MEMBER ZIEMER: Bob, do you want to -- I'm sorry; can you explain what you mean by an independent review?

MR. BARTON: Yes. Dr. Ziemer, the first review really focused on the DR methods and whether they were appropriate with the data we had at the request of the work group. After that, they wanted us to take a specific look at power practices at other sites to make sure that were remaining consistent with this review, in consideration of other residual period reviews. So, they're essentially companion reviews. The second one was at the request of the work group.

MEMBER ZIEMER: I'm trying to understand the wording “independent review.” This is separate from SC&A's review?

MR. BARTON: It is still SC&A, but it -- it was performed by someone who wasn't on the original review. So independent, within SC&A, I guess, would be the wording.

MEMBER ZIEMER: So, is this review completed?

MR. BARTON: Yes. And it --

MEMBER ZIEMER: And SC&A endorsed it?

MR. BARTON: Yes. It is -- it is an SC&A work product.

MEMBER ZIEMER: It's SC&A --

MR. BARTON: Yes.

MEMBER ZIEMER: I gotcha. I wasn't understanding.

MEMBER BEACH: It's -- it's in the work group's hands; however, NIOSH is reviewing, and it's in internal review right now.

MEMBER POMPA: Was it -- David Pompa. Was it -- did you -- did other SC&A people review it?

MR. BARTON: No. We were asked to keep it separate.

MEMBER POMPA: It's a separate review?

MR. BARTON: From a different angle, I would say. Instead of looking necessarily directly at the data and the dose reconstruction methods, we were looking at past precedent for SEC decisions made by the board, and then looking at other sites that were somewhat similar to Metals and Controls and how decisions made by that work group fit in this past decision made by the board.

MEMBER POMPA: Why -- why wasn't the original SC&A group -- why didn't they do this review?

MR. BARTON: We touched on it, but nearly enough in --

MEMBER POMPA: That's not --

MR. BARTON: -- not nearly enough in the original review. And so --

MEMBER POMPA: No. But why didn't the work group come back and ask you originally, the SC&A, to do the review?

MR. BARTON: Well, I think -- I think that is what happened.

MEMBER BEACH: It -- we did. We asked for someone --

MEMBER POMPA: (Indiscernible) was the original member of the group that did this initial review prior to that.

MR. BARTON: No, not part of the secondary part. The really, companion documents one really looks more at the technical aspects, one looks more at the policy and past precedent.

MR. POMPA: That's it.

UNIDENTIFIED SPEAKER: Well, SC&A, as a consulting group, decides who does the review for SC&A. We've always worked with SC&A, and we continue to work. The fact that they're two different individuals -- two different folks that are working on it, is their decision and choice.

MEMBER BEACH: The work group asked for the additional review.

UNIDENTIFIED SPEAKER: Right.

MEMBER BEACH: We requested it as a work group.

UNIDENTIFIED SPEAKER: Of some -- somebody independent of the group --

(Whereupon, multiple unidentified speakers respond at once, all of whom were indiscernible.)

MEMBER BEACH: Within SC&A we asked for a more overview, if you will, to look at what was being done.

MEMBER KOTELCHUCK: And -- Dave. And SC&A decided, as they should, in their internal discussions about who should do it. And given that there was some different emphasis, they apparently chose that, you know, another -- another member of SC&A would do it. But that's not -- that was not our request. Our request was simply please -- please do a second review on these issues.

MEMBER BEACH: And the SEC --

MEMBER KOTELCHUCK: The word independent is -- I -- I think is -- led to --

MEMBER BEACH: Yeah.

MEMBER KOTELCHUCK: -- mis -- misunderstanding. No, no. We work with our consultants.

MEMBER BEACH: Yes.

MEMBER KOTELCHUCK: And happy to do it.

UNIDENTIFIED SPEAKER: Thank you.

CHAIR ANDERSON: Any other questions?

DR. ROBERTS: Before we resume, I just wanted to reiterate that people should identify themselves before their question or comment.

MEMBER CLAWSON: And, Rashaun -- this is Brad -- just let you know, I'm -- I'm on.

DR. ROBERTS: Okay, great. Thank you, Brad.

MEMBER KOTELCHUCK: Actually, with two Daves on the board now, I've got to say -- two Daves on the board -- need to state (indiscernible).

CHAIR ANDERSON: So, shall we do -- we're in work session, and we'll move on to the work -- board work session. Any (indiscernible) issues we

need to deal with, or should I start with our letters?

Board Work Session

UNIDENTIFIED SPEAKER: Member introduction.

CHAIR ANDERSON: Oh, yeah. Okay. So we're gonna go through the (indiscernible) giving us background -- (indiscernible) folks on the (indiscernible).

MEMBER FRANK: Okay. So my name is Arthur Frank. My background is (indiscernible) physician trained in internal medicine and occupational medicine. I've been primarily doing occupational medicine since the mid-1970s. I've been an academic at 24 universities over my career. (Indiscernible) spent the last 20 years at Drexel University where I'm a professor of public health and a professor of medicine, and even a professor of civil architectural and environmental engineering.

My connection with the kinds of activities that this board looks after is that, beginning about 2002, I began work at the Pantex site in (indiscernible) area, where we first looked at some workers and their health issues related to a lung cancer study. And then, beginning in about 2003, we were funded by the Department of Energy. And for the next years through 2020, I was the PI of the Pantex former worker subcritical surveillance program and continue to work with that program as a new advisor having transferred that to colleagues in Texas that I've worked with over these two decades.

Thank you for the opportunity of sharing my background. And I look forward to being here and contributing to this important board.

CHAIR ANDERSON: Okay. David.

MEMBER POMPA: My name is David Pompa. Thank you for the invitation. And I -- sometimes I thought -- with all the paperwork, I thought maybe I shouldn't have joined, but we got that behind us. But I've been involved -- I worked at the Pantex site where Dr. Frank was talking about in Amarillo, Texas. It's the final assembly and disassembly of nuclear weapons, nuclear bombs. And I worked on that for 23 years.

And the last 17-18 years I was in safety, but I wasn't -- and I also got involved with the program in 2000. The EEOICP program, I've been involved in that since the beginning, and also got involved with Frank. We did some cancer research. I was involved there for several years, you know, and also with the Pantex former workers program. We initiated that, and it's still going. It's a benefit for our workers.

But I also -- going back to the work that I did. I did a lot of hands-on work with nuclear bombs, assembly and disassembly, and was exposed to, of course, radiation, and other chemicals. We had an incident in 1989, in May 1989, that changed the process. A Tiger Team comes in. They find 113-115 findings. We were working with a lot of chemicals that were carcinogens. And that changed, of course, the way we did things. Working on nuclear weapons also changed after the 1989 incident.

But, thank you. And I'm glad I'm here.

CHAIR ANDERSON: So, let's go to the Zoom folks.

UNIDENTIFIED SPEAKER: Who do you want?

CHAIR ANDERSON: Okay.

UNIDENTIFIED SPEAKER: I didn't know who you wanted first.

MEMBER CASSANO: Hi. I am Dr. Victoria Cassano. I am a retired Navy occupational physician undersea medical officer, which includes radiation health. After I'm -- after I retired from the Navy, my first retirement, I went -- well, I went to the Department of Veterans Affairs where I was the director of radiation and physical exposures, as well as the acting director of the environmental health, and strategic health care group. And, in that capacity, I was the VA representative to the veterans advisory board on dose reconstruction.

While in the Navy, I oversaw several radiation health programs, including (indiscernible) Star and the demolition of the Windsor K -- the K (indiscernible) Windsor, Connecticut site. What else do I have here? And then, just recently, I was on the other board, the DOL board on toxic substances and worker health. And I left that board because it was complicating the other piece of (indiscernible) of my life.

And thanks to a couple of friends, [identifying information redacted] (ph) and -- and -- and [identifying information redacted] (ph), they gave Dr. Anderson my -- my contact information. And he is a very good arm twister, so here I am. And I'm looking forward to -- to -- to working with the board, and making -- making some progress in how we take care of these people. So, thank you.

CHAIR ANDERSON: Great. Thank you. It wasn't too hard of an arm twist.

MEMBER CASSANO: Well, after [identifying information redacted] arm (indiscernible) --

CHAIR ANDERSON: -- (indiscernible) identified what kind of person

we needed. And they got their heads together and came up with you, so.

MEMBER CASSANO: With me, thanks. No, I -- I -- I'm happy I'm here. I really am.

CHAIR ANDERSON: Good. Well, --

MEMBER CASSANO: And I'm sorry I couldn't make it down in person. I was planning to until I woke up Tuesday morning sick as a dog and called Rashaun and said I couldn't get on a plane, there's just no way. So I am here by Zoom, and hopefully, next time, I will be there in person.

CHAIR ANDERSON: Okay. Thank you.

Next is Nicole --

DR. ROBERTS: Nicole Martinez, --

CHAIR ANDERSON: -- Martinez --

DR. ROBERTS: -- I believe.

CHAIR ANDERSON: Yeah. Okay. I --

DR. ROBERTS: (Indiscernible) for her, but I don't think --

UNIDENTIFIED SPEAKER: I don't think she's on.

CHAIR ANDERSON: Okay. So that's the new folks. And, as you know, we have a couple of vacancies again, and we're now going through a new recruitment process. The recruitment period is closed. And so, there's a goodly number of applicants that came in that will now go through the review process. And, probably, next year this time we'll have -- have a full complement to -- to the board.

So let's see, do we want to go through work group reports? Subcommittees?

MEMBER BEACH: Mine's done, so you can go ahead, Dave.

Subcommittee?

MEMBER KOTELCHUCK: The -- can I pass until I can (indiscernible) our next meeting? I'll pass for a moment, if I may.

CHAIR ANDERSON: Okay. Brad, take it away.

MEMBER CLAWSON: (Indiscernible) --

CHAIR ANDERSON: -- three committees.

MEMBER CLAWSON: Okay. I just want to talk about Savannah River when we think of next places to go. I know we got to go down there. I'll put a plug in for that. I also talked about -- to Ziemer about this and Rashaun and (indiscernible). When we first -- when we first started coming in here, we had -- we had the -- we had to have the S -- SEC work group meeting with the Savannah River work group, and that was because we were evaluating how we're going to implement the coworker model, and so forth like that.

And it's made things, I think, a little bit harder. And I would really -- I talked to Paul about this, and I believe he's in agreement with me, from now on, we'll just meet at the Savannah River work group because with the SEC, and stuff that's gone in, it's kind of a little bit of a different issue there.

We are trying to set up a meeting for -- in March, I believe, March 22nd after the Savannah River work group. We should have information from NIOSH and SC&A to be able to get that to us and be able to review it. But, from now on, I'd really like to just meet -- not that I (indiscernible) and Paul and everybody, but it makes it a bit harder to set things up. So, I would like to start meeting the Savannah River just work group.

Paul, do -- anything you'd like to say on that?

MEMBER ZIEMER: No. I totally agree with Brad. But I don't think, at its present time, the two groups need to be moving together. And in my last email to Brad-- and I wasn't sure if you read this yet, Brad -- I put it on the chat line to read your email -- but, in any event, unless this board thinks that we should continue having the two groups meeting together, I don't -- I don't think it's necessary. Our oversight group has things, other than this -- the things that involved our work to -- to address.

UNIDENTIFIED SPEAKER: Right.

MEMBER ZIEMER: Plus, setting up a meeting time for many more people is difficult, as Brad mentioned. It makes it more difficult to match schedules when you have a larger group like that. So I -- I think from my point of view, the Savannah River site work group should continue as one group, if that's agreeable with the board. I don't think the board needs to take action unless you want us to continue that. We were doing that for a specific purpose before.

UNIDENTIFIED SPEAKER: Yeah. There were some specific issues that our work group was dealing with.

MEMBER ZIEMER: Right.

UNIDENTIFIED SPEAKER: But, at the same time, and so we --

MEMBER ZIEMER: -- involved with too. If you're in agreement, I think that we should proceed on that basis. I don't know if it takes formal action. If it does, I'll make a motion.

CHAIR ANDERSON: I mean, the only thing would be, do we have -- I don't remember all -- Brad, who are all the people you have on your

committee?

MEMBER CLAWSON: Well, that's kind of changed --

CHAIR ANDERSON: Well, like I say, I don't know. And I want to be sure that we have enough, and have enough of the proper, you know, breakdown of who's on it. And, I guess, that would be more up to Rashaun --

UNIDENTIFIED SPEAKER: There's a --

MEMBER CLAWSON: Let's see, I have Lockey on there. I thought I had Dave Richardson, too. That's the one (indiscernible). But we'll look at that and we may make some assignments and stuff to be able to help us through that.

But I guess it kind of got a little bit difficult too because we have two different groups looking at the issues that we were trying to work through differently. And it was kind of hard separating between the SEC issues and what the Savannah River issue because we were kind of looking at them a little bit different. I -- I do -- I do have to say, I appreciate that they were involved with us, because, as usual, Dr. Ziemer always brings an interesting side into things. But (indiscernible) and Rashaun, and we'll check everything out and be able to make sure we're good on that, and we'll go from there.

While I do have (indiscernible) not anything more on that issue, I'll give it -- a report on -- on Pantex that I'm responsible for. There's still no motion -- movement on that.

Nevada test site, I don't have any update. I talked with Mark Rolfe first. He said they're still working -- all the SEC issues are taken care of. We're just getting the site profile buttoned up and done with, on the Nevada

test site.

I thank Lori for the information she's got me for Argonne East, which we're working on. And Laura is -- we're trying to get a date from NIOSH on where things are at with Argonne East. And when we should be expecting it, she's saying sometime next year. So we're still pushing forward on that, but -- but with a lot of the changes that we've had, we're going to have to look at what our real needs consist of because we've lost some very valuable asset -- assets. So we may want to take time and evaluate that down the road here.

CHAIR ANDERSON: Well, I think -- I think -- Rashaun and I have talked, and I think your meeting in March -- hopefully, by then, will be able to identify adding someone. And it's just you and Lockey that are left. And so, we'll try to get some new people or other board members to -- to join you, as well, if we can get that going. But, hopefully, your issues are ones that if we put one of the new folks on it -- it's if -- if we get everybody on board by then. And then I'll have to see. If not, we may ask another one of the board members to -- to join you on that because we really want to have at least three people --

MEMBER CLAWSON: Yeah, especially -- especially with having Lockey on my -- my team, because you know how he is.

UNIDENTIFIED SPEAKER: Not touché, but --

CHAIR ANDERSON: From my perspective, we're also trying to get more of the physicians involved, when (indiscernible) only have two, it was hard to have that. So you have -- at least you have that perspective there. But (indiscernible) of the other, engineer side of it, we may be able to add to

it. But we'll keep -- we'll let you know if we're going to have somebody else that we think we'd recommend to add to yours. And, hopefully, they'll be able to get up to speed there and sit in on your meeting.

MEMBER CLAWSON: Well, and -- and I appreciate that. And for the new people that's coming in, these -- these are very, very complicated sites. And Savannah River is a very complex site, not -- not until you really start diving into it, do you really understand the magnitude of what it is. But (indiscernible) know that there is an awful lot of wonderful people on this board that always will help you try to understand the methodology in order -- going. And NIOSH has always been great to be able to reach out and help you understand what -- where we're going with things that we're doing. And SC&A, who works with us, has been a great benefit and process in going into this because they really are complex. But I look forward to working with all of you, and I'm sure we'll be able to have our times on board together in the future. Thanks.

UNIDENTIFIED SPEAKER: (Indiscernible) a date for the next meeting to begin. So --

MEMBER CLAWSON: Yeah. That's -- that's what I -- yeah. That's what I wanted to make sure of. I don't want to -- I don't want to miss that date because we -- we want to process through. So if nothing else, I -- I do need to have at least three members on there.

So, keep that in mind, Henry.

CHAIR ANDERSON: Yeah. You may end up with me. I don't know. But we'll get you a -- we'll get you a third, hopefully, that will be able to stick with it. And --

MEMBER CLAWSON: Okay. Perhaps, (indiscernible) new folks as a fourth, not necessarily a -- well, you know, and --

And, Henry, this is another thing, too. And I will be right honest. I've been -- this a lot of times. I want the new board members to understand, too. Whenever we have work groups like this, and we want to better understand some of these processes that are going on, I've called in and I've listened to a lot of the work groups, and what -- what they're dealing with and stuff like that. I don't have much input or anything like that. I'm just more there listening. But it helps you understand what -- what the actual root of the issue is and what we're trying to complete. And there's always the transcripts that you can go to and read on these issues and -- and how you've worked through it. And we'll try to help you understand how -- how we get a lot of these questions answered. And we're always here to be able to help too. So, I'll leave it at that, Henry.

CHAIR ANDERSON: Okay.

MEMBER KOTELCHUCK: Dave Kotelchuck: So I need to make sure to check, to make sure that we didn't have any -- any scheduled meeting for dose reconstruction review subcommittee. Rose and I had been talking, we're basically going to start the next period with going over the blinds cases because that's something that can be done more quickly than going over the -- the next full set of 30 cases. And I -- SC&A is working on them. Rose may have something to -- if she wants to update a little bit --

MS. GOGLIOTTI: No. We don't have any. We currently don't have any sets that we're working on. In October we finished set 31, which was a nonblind set. We elected to hold off on doing the one-on-ones for that until

the new board members came online.

MEMBER KOTELCHUCK: Right, okay. Oh, okay. I thought you were working on the blinds and that we might go through the blinds first.

MS. GOGLIOTTI: No. We decided to hold off on doing the blinds, if you remember --

MEMBER KOTELCHUCK: Okay.

MS. GOGLIOTTI: -- because we are still waiting on some of the tools and --

MEMBER KOTELCHUCK: Ah, I see.

MS. GOGLIOTTI: -- know what will be in there and what we need until we actually get into the cases.

MEMBER KOTELCHUCK: Ah, very good. Okay. So we're -- we're held -- we're -- we're in abeyance, if you will, for a while until we have enough material to read about. Dave Richardson who just -- who was on the subcommittee, just recently left the board. And I hope we'll get another person appointed soon of the new people who came in or however -- however the chair wishes to handle it.

And the Rocky Flats Plant working group is -- we gave our report today. And the -- there's nothing new with Ames, and I think that's it for our committee, for the committees that I'm on and chairing. So, there we are, that's --

CHAIR ANDERSON: Okay.

MEMBER BEACH: I -- I have some reports. So I'm -- three I'll mention that we're waiting -- awaiting NIOSH. So Blockson has a TBD outstanding issues; Brookhaven, same, TBD issues awaiting NIOSH

response; and then Mound, it's the external TBD issue that remains, and we're waiting for that. It keeps getting pushed back. I think these are all pretty low priorities right now, but wanted them to be mentioned.

LANL, I had a report written out. Chuck handled most of that. The only thing I'm going to add is LaVon had sent me a report, they are working with SC&A to get the documents on to the virtual volumes so that they can be available to review. So those are targeted -- targeted or should be available now. I've seen several emails go back and forth on it.

And NIOSH is also working with the LANL site to develop more precise dose estimate for the LANS (ph) workers using a whole-body count data and has requested additional data support. So, and they are working on -- on plans -- plant facility -- or LANS facility site tour, and the data capture in early January. I think they've invited board members and SC&A to join, if they're available. And I think LaVon's heard from a couple, at least, board members at this point.

And then for Metals and Control, we do have an overview document that we -- the work group asked for an analysis of the pertinent SEC issues that are on the table. None of them have been closed out. Our last meeting was over a year ago, and we only got through about half of that meeting, or even less than that because of a time constraint issue. So that is an internal document with NIOSH. Once that is released to the work group -- I heard -- I know you heard it was coming out in early January. The work group will meet -- so I'm hoping to have a LANL and a M&C work group meeting in mid to late February time frame. Oh, I have --

CHAIR ANDERSON: Okay. I can say (indiscernible) your AWE group,

again, we're looking for a new member there that Bill Field was that (indiscernible) --

MEMBER KOTELCHUCK: That's correct.

CHAIR ANDERSON: -- so there's now two of us left.

MEMBER KOTELCHUCK: Right.

CHAIR ANDERSON: So we're going to be looking to get another member or more on that. There's --

MEMBER KOTELCHUCK: Yeah.

CHAIR ANDERSON: -- there's nothing really pressing at this point, we're waiting for a number of things. But it's nothing with a real hard deadline. It's more getting caught up with (indiscernible) some of the issues that were already there.

And the other is the special exposure cohort. Really, I think, NIOSH is putting together a document on issues that were identified on the last meetings and we're -- we're waiting. When we get that, I think that'll be the next time that that group will -- will get together. I don't recall whether we have any other (indiscernible) issues. And that's Genny -- Gen Roessler or Josie Hall, and I, I think, are on that.

MS. ROESSLER: Henry, this is --

CHAIR ANDERSON: Yeah.

MS. ROESSLER: -- Gen. Yes, I can report on OR&L or, I guess, I can --

CHAIR ANDERSON: Okay, great. Go ahead.

MS. ROESSLER: Okay. To help out with the new members, I'd like to recommend we use acronyms as little as possible and say things out. So

this is Oak Ridge National Laboratory, the X10 facility. And I've gotten a report from Laura Hughes, who's the NIOSH group leader on OR&L. And I'd just like to read what she has to say because NIOSH is -- is working on this diligently.

(Reading): As many of you know, the last work group meeting was in June of 2021. We still have some things before we can meet again. NIOSH is looking on -- at the findings that we have from our last meeting. Three of the seven findings remain open for NIOSH to address. And then of the six observations, four were closed, and two remain from NIOSH to advance.

NIOSH is working on addressing the remaining issues by developing a coexposure approach for the exotic radionuclides. And if the new members would like, we can tell you all about what they are. And revising the dose reconstruction approach presented for (indiscernible). The iodine approach has been removed from ORAUT, which is the Oak Ridge Associated Universities Team report 90 and will be moved to the coexposure effort. It's being worked on by doing additional data collection and review. Report 90 is (indiscernible) in the final stages of being revised for clarification of various issues raised by SC&A. The report is undergoing some revision of the references used to make its (indiscernible) more clear, which as Dr. Hughes mentions, is a very time consuming effort.

This is not much of a change since the last update; however, she reassures us that we're working hard. And we hope to get back to work group to get to work on it. So that's it for that one, Henry.

CHAIR ANDERSON: Okay. Thank you. Others? We're going to be talking next about analysis. Again, we -- we established that, but we're

going to be waiting for the SC&A review of the NIOSH document before too long. Again, we'll be adding somebody there. Again, Bill Field was the fourth member of that group, so we'll look for a replacement on the scientists' side for that one.

We have any other -- we don't have any other meetings?

UNIDENTIFIED SPEAKER: No, no.

CHAIR ANDERSON: Okay. So we've got -- want to talk about public comments?

UNIDENTIFIED SPEAKER: Here I am.

DR. ROBERTS: Yes, just for the information for new board members. And there's -- typically, NIOSH records the public comments that we received in the public -- full public meeting that we've had for the next (indiscernible) meeting. So these are public comments that were submitted for our August (indiscernible). And what happens is that NIOSH compiles those comments and also responds to them. And then, here for the board work session, they simply provide a quick summary (indiscernible). I have provided the (indiscernible) along with NIOSH's responses. Hopefully you've had a chance to take a look at them.

But there -- there were a few comments back in August, it was a general comment about us making -- for the board making the commitment to have the next (indiscernible) in Florida to visit Pinellas, and also to -- to hold the meeting here. And so, obviously, we're fulfilling that commitment by being here today.

There were also a few comments specific to Pinellas about -- questions about how -- why certain things weren't factored into those calculations and

things of that nature. And it sounds like for a lot of these -- these have been issues that have been discussed before by the previous Pinellas Plant work group or some of these issues are covered in documents that are available on the DCAS website. So that's basically the summer -- summary and general overview of the comments that were made back in August.

CHAIR ANDERSON: Thank you. So I got a listing here of the upcoming dates for meetings. Next, will be our call in February. April 19th and 20th is still planning for face-to-face meeting. Probably need to choose a place, and the question is are there any of the sites that we're going to be (indiscernible) or do we have more --

DR. ROBERTS: Mmm.

CHAIR ANDERSON: -- together? I don't know.

DR. ROBERTS: Right. That's something that we would talk about a little more in the next -- we're getting closer to the -- the April date. So we have these dates set through August of 2023. Typically, we like to schedule meetings about a year out, which means that we need to identify dates for October and December of next year. So I don't know if people have access to their calendars, but we can quickly identify something for a teleconference in October and then a full meeting in December.

So, this year, I believe our teleconference was somewhere around the 20th or so. We could, you know, go for that timing again. We could do earlier in the month or later. It just depends. Is there one end week that we should avoid for the teleconference?

UNIDENTIFIED SPEAKER: If possible (indiscernible) 5th and 6th?

DR. ROBERTS: Okay.

UNIDENTIFIED SPEAKER: (Indiscernible.)

DR. ROBERTS: What about the week of the 9th?

UNIDENTIFIED SPEAKER: That's a good date. Yeah.

DR. ROBERTS: Does anyone have an issue?

UNIDENTIFIED SPEAKER: Is there a typical day it's usually held?

DR. ROBERTS: We like to keep it to Wednesday, Thursday.

UNIDENTIFIED SPEAKER: You talking about December?

UNIDENTIFIED SPEAKER: No, October --

UNIDENTIFIED SPEAKER: -- guys speak into your microphones, because we can't -- can't hear you back here.

DR. ROBERTS: Sorry, we're --

UNIDENTIFIED SPEAKER: -- about a --

UNIDENTIFIED SPEAKER: -- our meeting -- meeting in April.

DR. ROBERTS: Okay. Yes, we're just scheduling meetings out for a year, and we're trying to identify the dates for our October teleconference and next year's full board meeting.

CHAIR ANDERSON: So how about October 12th then?

DR. ROBERTS: Sure.

CHAIR ANDERSON: That's a Thursday.

DR. ROBERTS: Will that work for people?

UNIDENTIFIED SPEAKER: Sure.

UNIDENTIFIED SPEAKER: Okay.

UNIDENTIFIED SPEAKER: Yes.

CHAIR ANDERSON: And it'll be a typical morning, what, ten o'clock?

DR. ROBERTS: Yes, typically --

CHAIR ANDERSON: (Indiscernible) yeah.

DR. ROBERTS: 11:00 Eastern --

CHAIR ANDERSON: Eastern.

DR. ROBERTS: -- is the start --

CHAIR ANDERSON: Yeah.

DR. ROBERTS: -- time. A teleconference doesn't typically run very long. You know, the teleconferences probably are wrapped up within an hour or two. So October 12th at 11:00 Eastern is what we've tentatively got for next year.

Moving on to December of 2023. So, obviously, we've met the 8th this year. We could certainly go with that timing roughly again. Wednesday, it's the 6th or Thursday is the 7th. Are people available around that time frame?

UNIDENTIFIED SPEAKER: (Indiscernible.)

UNIDENTIFIED SPEAKER: Yeah, the follow -- following would be better.

UNIDENTIFIED SPEAKER: Which would --

MEMBER BEACH: That's good for me.

UNIDENTIFIED SPEAKER: Second week in December.

UNIDENTIFIED SPEAKER: (Indiscernible.)

UNIDENTIFIED SPEAKER: -- the 11th.

DR. ROBERTS: Second week --

MEMBER CASSANO: No. I -- I can't make the week of the 11th. It's not good for me.

UNIDENTIFIED SPEAKER: Okay.

DR. ROBERTS: Okay. What about -- so the whole week of the 4th would be out for people?

MEMBER BEACH: No, I'm fine that week.

UNIDENTIFIED SPEAKER: No, I'm okay.

UNIDENTIFIED SPEAKER: (Indiscernible.)

MEMBER KOTELCHUCK: Are there any other dates -- dates of --

MEMBER CLAWSON: That -- that won't work for me.

UNIDENTIFIED SPEAKER: We can't hear you.

UNIDENTIFIED SPEAKER: (Indiscernible) the 4th through the 8th, probably like the 6th -- 5, 6, or 7.

MEMBER CLAWSON: No.

UNIDENTIFIED SPEAKER: No.

DR. ROBERTS: And so, then we're getting out to the week of the 18th, which --

MEMBER CASSANO: Oh, no, no.

UNIDENTIFIED SPEAKER: What about the week after Thanksgiving, the last week in November?

DR. ROBERTS: Typically, we've done December, but perhaps considering that it's -- it sounds like it's difficult to find a date in December.

MEMBER KOTELCHUCK: 29-30th of November?

DR. ROBERTS: 29-30th of November?

MEMBER KOTELCHUCK: Yep.

DR. ROBERTS: Okay.

UNIDENTIFIED SPEAKER: That won't work for me.

UNIDENTIFIED SPEAKER: (Indiscernible.)

DR. ROBERTS: Okay.

MEMBER BEACH: So, Jim, are you gone the whole week of the 4th, 5th, 6th, that week?

Member Lockey: Thursday and Friday would be okay.

MEMBER BEACH: So, the 7th.

MEMBER KOTELCHUCK: (Indiscernible) week.

UNIDENTIFIED SPEAKER: (Indiscernible) --

DR. ROBERTS: -- December 7th --

MEMBER BEACH: (Indiscernible) --

DR. ROBERTS: -- and 8th; --

MEMBER BEACH: Yeah.

DR. ROBERTS: -- would that work?

UNIDENTIFIED SPEAKER: Works for me. We also need input from NIOSH, I think, on this. Right?

UNIDENTIFIED SPEAKER: That would work for me.

UNIDENTIFIED SPEAKER: The 7th and 8th?

DR. ROBERTS: Uh-huh.

MR. CALHOUN: We're all listening. This is Grady Calhoun, by the way -- are talking about having the board -- the meeting actually on a Friday, the 8th?

DR. ROBERTS: More so, the (indiscernible).

MR. CALHOUN: Yeah. So 6th and 7th or 7th and 8th? I mean, I -- I -- we can travel on a Saturday if we need to, but we usually don't. Do you guys want to travel on a Saturday?

DR. ROBERTS: Would the 6th and 7th work?

MEMBER BEACH: Yes. Yeah.

UNIDENTIFIED SPEAKER: I'll just have to rearrange my schedule.

DR. ROBERTS: Okay.

UNIDENTIFIED SPEAKER: Okay.

CHAIR ANDERSON: Okay.

DR. ROBERTS: All right. So tentatively --

UNIDENTIFIED SPEAKER: The 6th and 7th?

DR. ROBERTS: -- we will mark off the 6th and 7th.

MR. CALHOUN: -- the 6th and 7th.

CHAIR ANDERSON: You can travel on the 8th.

MR. CALHOUN: Oh, yeah, absolutely. I mean, I just wasn't sure you knew you were planning it for Friday, because I don't think we've ever done that before. Well, all right.

DR. ROBERTS: Okay. So tentatively, December 6th and 7th, 2023, for next year's meeting.

UNIDENTIFIED SPEAKER: And face-to-face.

DR. ROBERTS: Yes, face-to-face.

MEMBER CASSANO: Could you repeat what the dates are before that for those new people that -- like me that may not know what they are.

DR. ROBERTS: Sure. And they are available on the -- there's an annotated version of the -- of the agenda sent. But our -- the next meeting that we have is scheduled for February 15th of next year. That's a teleconference starting at 11:00 a.m. Eastern that day. Then the next face-to-face meeting is April 19th and 20th of next year. And, again, the location will be determined as we get a little bit closer to that date. Then there is a

teleconference scheduled for June 14th, and then another face-to-face schedule for August 16th and 17th.

MEMBER CASSANO: Thank you.

DR. ROBERTS: Sure.

CHAIR ANDERSON: Okay, problem?

MEMBER ZIEMER: So, this is sort of a location question, although we do want to wait until we're closer, as you say, but I wanted to sort of get some ideas. We talked about different places last time and may be coming up in terms of when we're getting close to closure on some issues. Jim, yesterday I wasn't paying that much attention to your report because I'm -- I'm conflicted on Oak Ridge, but I am still interested in Oak Ridge as a possible location. Are we at a point where there's something critical or important that -- saying that we should meet in Oak Ridge, either --

UNIDENTIFIED SPEAKER: Well, hold on one second.

MEMBER ZIEMER: -- October --

MEMBER BEACH: I didn't know you just kind of shut off your attention because you have a conflict, but -- you know, I'm kidding.

MEMBER ZIEMER: I'm using that as an excuse for not remembering what your time line was.

MEMBER BEACH: I think the good thing about -- we're talking about April, aren't we? In Oak Ridge, that would be a nice time of the year there. But I can't really say -- and I don't know if Dr. Hughes is on the line or on the Zoom launch and can give us some idea whether NIOSH would be at the point where we would find that to be productive to meet there.

DR. HUGHES: This is Laura. I'm here. Can you hear me?

MEMBER BEACH: Yes. So I don't see that we would have anything to -- the work group at that time, at this point. So we're still working on a path forward with iodine, and that includes data capture. So that's a somewhat drawn out process at the moment. So I -- I would be very reluctant to promise anything.

MEMBER BEACH: Just because we'd have to have your report and have a work group meeting first before we would want to schedule something. So, I think the answer to that, Paul, is probably not.

MEMBER ZIEMER: Thank you.

UNIDENTIFIED SPEAKER: Maybe August?

CHAIR ANDERSON: Does NIOSH have any suggestions for sites that you think would be good ones to...?

MEMBER CLAWSON: Savannah River would be a good one. This is Brad.

CHAIR ANDERSON: Yeah.

(Whereupon, multiple attendees began speaking at once making all comments indiscernible.)

UNIDENTIFIED SPEAKER: Savannah River is a great place to go in the spring, for sure. I don't know whether the work group would be done from that standpoint. It kind of depends upon how the responses come back. I mean, we're going to be providing responses to the work group by the end of the month. SC&A is going to be reviewing those, and we're gonna have a meeting in March. But I don't know that that meeting will resolve or if there's going to be some more follow up from that. But it will be an opportunity for the board, could get input from workers down there. So, it's

something to consider.

UNIDENTIFIED SPEAKER: Is that for April?

MEMBER BEACH: No. We're asking for --

UNIDENTIFIED SPEAKER: -- April?

MEMBER CLAWSON: Idaho's really nice in April, too. Part of the snow is gone by then. This is Brad.

CHAIR ANDERSON: We'll come to you in August.

MEMBER BEACH: And Metals and Control will be maybe in the middle of that also for Adelberg (ph). So that might be a thought.

MEMBER KOTELCHUCK: You mean, they're -- okay. You mean there are -- I mean, there are issues, and it may be of value to have people who are from the site be there, input, because there are differences of opinion, you know, within the working group and within (indiscernible).

CHAIR ANDERSON: Well, we have options. We just haven't resolved anything immediately. We don't probably need to.

UNIDENTIFIED SPEAKER: Hey, Henry, while we're -- can I just take a minute here? I've got a question on the dose three reconstruction because -- and correct me if I'm wrong, but I thought last meeting that we held, we -- because SC&A doesn't have any nonblinds worked on, and I thought we'd asked NIOSH -- and we were going to try to get a list put together. And we kind of laid out a criteria for it to be able to get these nonblinds in the process and working.

MEMBER KOTELCHUCK: That's what we were just saying. I mean, the issue right now is people are waiting on cases from NIOSH. And, apparently, people can't go ahead -- SC&A can't go ahead with the blinds at

this point.

UNIDENTIFIED SPEAKER: Well, but I'm talking -- Dave, I'm talking about nonblinds. I'm talking the dose reconstruction --

MEMBER KOTELCHUCK: Nonblinds --

UNIDENTIFIED SPEAKER: -- (indiscernible) --

MEMBER KOTELCHUCK: Right. I believe the nonblinds we've already selected.

UNIDENTIFIED SPEAKER: Because we have --

MEMBER KOTELCHUCK: -- in the process.

UNIDENTIFIED SPEAKER: We got to 32. And so, what we're not waiting on is putting together --

MEMBER KOTELCHUCK: Right.

UNIDENTIFIED SPEAKER: There are -- there --

UNIDENTIFIED SPEAKER: Because we were hoping to include the new board members, at least to sit in, because that's a good way to --

MEMBER KOTELCHUCK: (Indiscernible).

UNIDENTIFIED SPEAKER: -- to the cases there.

MEMBER KOTELCHUCK: Right, right.

UNIDENTIFIED SPEAKER: -- done much more -- to get much more --

MEMBER KOTELCHUCK: I'm just --

UNIDENTIFIED SPEAKER: -- so --

MEMBER KOTELCHUCK: -- curious, Brad, did you perhaps miss that? We -- we did submit cases.

UNIDENTIFIED SPEAKER: Yeah, go ahead, Bob. You look like you have something --

MEMBER KOTELCHUCK: Yeah. Okay. Yes. Sorry.

MR. BARTON: If I might, there's a couple different things at play here. We just delivered the 31st set, and that's what we're talking about setting up the one-on-one calls with the new board members. And normally after we do a full set of 30, we get another set of blinds. But as Rose pointed out, we're still waiting on certain tools to be made available to be able to do the blind cases. So one option to keep moving forward would -- instead of doing a blind set after the normal set of 30 is to do another set of 30 just to keep things in process and moving.

UNIDENTIFIED SPEAKER: Because I -- Dave, what one of the things was -- was, you know, we've been playing catch up for years to be able to get all of these -- the backlog that we had of these. And I just didn't want to fall behind in it. And I did not -- I didn't realize -- I put the names in there, but I hadn't seen anything yet. So that's kind of what I was waiting for.

MEMBER KOTELCHUCK: Yeah, yeah. Yeah. We're -- we worked hard to get up to date, and we are. The pandemic entered, which slowed all things down.

MEMBER CLAWSON: And that's all I wanted to do is just make sure that we keep going there, and I just --

MEMBER KOTELCHUCK: (Indiscernible.)

MEMBER CLAWSON: -- we had made our choices and I just -- just hadn't heard anything.

CHAIR ANDERSON: Okay. Let's see. We've got two letters from the board, and as well as NIOSH, related to individuals that I'd like to read in.

This is a tribute to (indiscernible), and here's the letter. I'll (indiscernible) read it into the -- a tribute to him.

(Reading): Members of the advisory board on radiation and worker health board wish to pay tribute to Mr. William "Bill" Field, who died at the age of 68 from refractory mantle cell lymphoma on November 4, 2022. He was appointed to the board by President Barack Obama in 2009. His lifelong interest in the health effects of radiation began with his determination to measure the level of radioactive iodine released into the environment from Three Mile Island Nuclear Power Plant nuclear accident in 1979.

Bill worked as a health physicist for the University of California, Berkeley, until he suffered disabling encephalopathy from an accidental work-related exposure to multiple neurotoxins. Following the accident in 1986, Bill devoted himself to raising his twins as he convalesced. Through Iowa Vocational Rehab, Bill started taking graduate classes at the University of Iowa in 1989, and completed his Ph.D. in preventive medicine and environmental medicine in 1994.

Bill joined the faculty at the University of Iowa in 1998. After his retirement in July -- January 2022, Bill continued research on radon-related health effects as professor of clinical reproductive sciences, Columbia University, New York.

Bill was recognized internationally for his expertise in radon and radiation health effects. He served on other national and world health organization boards during his career. He established the occupational epidemiology training program at the University of Iowa College of Public Health. He worked with professional organizations to improve radon testing

and to educate the public on health risks of radon.

Above all, he was a compassionate mentor who delighted in guiding his students towards independent careers in public health. The board greatly benefitted from and will long remember Bill's integrity, human kindness, and warm-spoke of manner, his sharing of work groups, and his good company during meetings. Bill made significant contributions to the ongoing work of the board during his 12 years of service.

This tribute is hereby adopted this 8th day of December 2022 at 149th meeting of the advisory board on radiation worker health in St. Petersburg, Florida. We circulated this to everybody. And so, we didn't get a lot of changes, but if anybody wants to say anything further, now is the time. We will send this along to his family as well. Any other issues anyone want to say about Bill?

Okay. Next is an expression of gratitude for Dr. David B. Richardson's service on the NIOSH advisory board for radiation worker health. The director of the National Institute for Occupational -- Occupational Safety and Health. On behalf of the members of the advisory board on radiation worker health wishes to express gratitude to Dr. David Richardson who resigned in November 2022. Dr. Richardson was appointed to the board under President Barack Obama in 2009.

Prior to serving on the board, Dr. Richardson was an associate professor of epidemiology at the University of North Carolina, Chapel Hill, where he led a team managing disease through the (indiscernible) electronic data within the research and innovation solutions (indiscernible) Innovation Lab. He led a number of studies of workers at the U.S. Department of

Energy facilities located -- focused on occupational health and radiation exposure issues. Previously, he spent time working at the World Health Organization's International Agency for Research on cancer in Lyon, France and at the Radiation Effects Research Foundation in Hiroshima, Japan.

He received his bachelor of arts degree in political science from Duke University and a doctorate of philosophy and epidemiology from the University of North Carolina at Chapel Hill. He has more than 165 peer-reviewed published journal articles and authored several book chapters. Dr. Richardson provided valuable input to the board's dose reconstruction deliberation using his knowledge and epidemiology research experience and made significant contributions to ongoing work of the board during his years of membership. Dr. Richardson took a new position as professor of environmental and occupational health, the program in public health at the University of California, Irvine, where his research investigates occupational and environmental causes of disease with a particular focus on ionizing radiation -- and in all its future endeavors.

The board wishes Dr. Richardson well in his new position and in all his future endeavors. This expression of gratitude for Dr. Richardson's service to the board is hereby adopted -- adopted this 8th day December 2022 at the 149th meeting of the advisory board on radiation and worker health in St. Petersburg, Florida.

Those are our two letters. Okay.

MEMBER KOTELCHUCK: Well, that explains why --

CHAIR ANDERSON: (Indiscernible) --

MEMBER KOTELCHUCK: -- academics for --

CHAIR ANDERSON: Yeah, he was --

MEMBER KOTELCHUCK: -- Irvine.

CHAIR ANDERSON: (Indiscernible.) Moving family and --

MEMBER KOTELCHUCK: Yeah.

MEMBER BEACH: Henry?

CHAIR ANDERSON: Yes.

Member Roessler: Yeah, this is Gen. Going back to Dr. Fields, I -- I would suggest you start it by saying Dr. Fields is (indiscernible).

CHAIR ANDERSON: Yeah, you're right. Okay, so --

MEMBER KOTELCHUCK: Okay. Thank you Chair and staff for those things. That takes time and focus (indiscernible) obituaries.

CHAIR ANDERSON: -- he didn't go.

MEMBER KOTELCHUCK: -- and how that must have affected his life.

CHAIR ANDERSON: Yeah. He had a hard go of it early on.

MEMBER KOTELCHUCK: He really did.

CHAIR ANDERSON: (Indiscernible.)

MEMBER KOTELCHUCK: Absolutely, he wouldn't.

CHAIR ANDERSON: Okay. So now we're done until 5:00.

UNIDENTIFIED SPEAKER: No, nobody said we're done until 5:00.

(Whereupon, several attendees spoke simultaneously making all discussion indiscernible.)

DR. ROBERTS: So we -- we have scheduled for a break between 3:30 and 3:45. So if you could come back at 3:45, I can start with the roll call again.

(Whereupon, a break was taken from 3:27 p.m. until 3:45 p.m.)

DR. ROBERTS: So I'm going to go ahead and take a quick attendance starting with board members.

(Roll call.)

DR. ROBERTS: We do have a quorum, so I think we can go ahead.

Member Valerio: Rashaun, I'm sorry. This is Loretta, I'm back in.

DR. ROBERTS: Thank you.

Update on Review of SEC-0256 Pinellas Plant, Pinellas Plant Evaluation Report

CHAIR ANDERSON: Steve Ostrow is on the -- on the phone or on the Teams.

So, Steve, we'll let you take it off. (Indiscernible) podium here.

DR. OSTROW: Okay. Thank you. This is Steve Ostrow. I'm the -- the team leader for SC&A on the Pinellas (indiscernible) -- produced. So, let's see.

UNIDENTIFIED SPEAKER: Steve, we can't understand you.

UNIDENTIFIED SPEAKER: We can't either.

(Whereupon, multiple attendees had a discussion simultaneously which was indiscernible.)

DR. OSTROW: The slides which are (indiscernible) the page now. Hold on a second and see if I can fix this. Can you guys see the slide?

UNIDENTIFIED SPEAKER: Yes.

UNIDENTIFIED SPEAKER: Yes.

DR. OSTROW: Good.

UNIDENTIFIED SPEAKER: Yes.

DR. OSTROW: It's still not moving. (Indiscernible.) Oh, here we go. Okay, got it. All right.

So (indiscernible) is a snapshot as of about a month ago of an ongoing review of the October 13th NIOSH SEC evaluation report. And some qualifications, since the review is ongoing right now, it's a work in progress. So, it might disappoint some people. The presentation was delayed because we can't reach any conclusions at this stage. We will -- we will have conclusions when we produce an actual written report and submit it to the board, but at this stage, it's a progress report.

And it is -- as Grady Calhoun had mentioned earlier this morning, that SC&A's working with NIOSH and ORAUT to -- to go over some of the limitations that we've had with accessing data that we need. NIOSH and ORAUT are cooperating with us very much, and we're making progress because of that.

A little of the background I'll go through quickly for people not familiar with Pinellas. (Indiscernible) Pinellas. (Indiscernible) actually near Pinellas. It's -- it used to be located on 100-acre site in Clearwater, which is part of the Tampa area. As it used to be, it finished operation a few years ago, and it's been -- the site's cleared and released for general use. It was originally constructed in 1956 as part of the -- the nuclear weapons program and was operated through 1994 by General Electric.

And the original charter was to manufacture neutron generators, which were used as triggers in nuclear weapons. After about 10 years of operation, they expanded to include other specialized electronic equipment. The nuclear weapons program, General Electric, was one of the experts at

that time in nuclear instrumentation and electronics in general.

At peak operations, about 2,000 people were employed at the site. The plant shut down in 1994. They did decontamination/decommissioning through 1997. And then after (indiscernible) remediation activities that lasted until 2009. And at that point, it was cleared --

(Whereupon, an attendee speaks unmuted from the meeting audio.)

DR. OSTROW: -- for commercial purpose right now.

(Indiscernible) the advisory board (indiscernible). Well, it began when NIOSH ordered the worker outreach in 2004, which was 18 years ago, and work group meetings in 2008. The current special exposure cohort SEC petition was submitted (indiscernible) in December 2019.

And with the consultation with the -- with NIOSH, the petitioners (indiscernible) petition twice on May 20, 2020, and August 17th. NIOSH subsequently qualified the last petition for evaluation and modified the class definition and (indiscernible). In short, it covered all (indiscernible) at the site from 1957 when employment began through December 1, 1990. (Indiscernible) included (indiscernible) closure date of 1990. (Indiscernible) the petitioners originally wrote that they (indiscernible) see what happened.

So NIOSH qualified it under the basis that there might not be enough dosimetry information available to reconstruct the doses. So the -- a little bit of history (indiscernible) report 1990, and I just mention the -- most people (indiscernible) 1990 DOE went through major, major Tiger Team operation with very extensive reviews of the sites at the nuclear weapons complex. And specifically, here, Pinellas was (indiscernible). And the Tiger Team report documented that some -- some dosimetry bioassay samples

may not be available for the period before 1990.

The Tiger Team report, as you'll see a bit later, divided the time period before and after. So the Tiger Team report said that there were deficiencies before 1990 (indiscernible) improved tremendously after 1990 apparently. So (indiscernible) and adequately and promptly addressed the bioassay compliance issues. In the Tiger Team report it's (indiscernible) period December 31, 1990. And SC&A is currently reviewing that to see what the basis is (indiscernible) and it looked like things like bioassay results, which personnel were monitored, and which weren't monitored, and NIOSH is (indiscernible) missing records or workers who weren't monitored couldn't be assigned doses. But that's typical for any plant that we look at that. The evaluation report itself -- and this is available on the public NIOSH website, if anybody wants to read it, if anybody -- it's -- it's not -- it's a cleared report.

So they issued the report, as I mentioned, about a year ago. And (indiscernible) the report, NIOSH concludes that it has sufficient information to estimate the maximum radiation dose, blah, blah blah, therefore, NIOSH does not recommend adding the NIOSH-evaluated class to the SEC. So, the (indiscernible) report concludes that NIOSH has enough information to reconstruct doses and that the SEC -- the SEC should not be approved. The board had a meeting on December 8, 2021, one year ago -- it's exactly one year ago, actually -- the board tasked SC&A to assess the evaluation for it. And we've been chugging along since then.

What's our review objectives? This is for the SEC that we looked at, and we provide this information to the board. The board determines

whether doses can be constructed with sufficient accuracy. And they also provide a technical evaluation of all the scenarios, data assumptions, and all (indiscernible) other information given the reference (indiscernible) ER to reconstructing doses. So (indiscernible) a little technical review. And the -- the right-hand column shows to the extent currently feasible SC&A's assessing NIOSH (indiscernible) currently feasible is that we have the various workarounds with NIOSH and ORAUT to get the data that we need.

So, one of the important things that we're doing, (indiscernible) we'll see near the end of the presentation, does NIOSH recognize, address, and resolve the, the petitioner concerns. The petition -- petitioners have a lot of concerns that we want to (indiscernible) these concerns. Did they leave any concerns out? Does NIOSH have access to sufficient data, particularly bioassay data, and does NIOSH adequately identify and model all significant and internal and external sources of radiation, including from radiation incidents. We spent a good amount of time and effort on the issue of radiation incidents and whether they were addressed in addition -- this would be in addition to the normal operation.

Okay. I want to mention technical basis document. As you probably know, the -- there's a sort of technical basis documents that cover the -- NIOSH's approach for different things like internal dose, external dose, environmental dose, etc., for this plant. And the original technical basis documents, called TBDs, were out about 2005 to 2016 (indiscernible). We went ahead and reviewed it, submitted an assessment to the board in 2006. That's a long time ago. We identified 11 primary and eight secondary issues.

(Indiscernible) SC&A reports, NIOSH reports, back and forth, NIOSH revised the TBDs beginning in 2011. So the current set of TBDs were revised, some of them revised more than once. The -- we had the work group meetings, and so forth. And the final status -- status and issues resolution process was reported at the August 2016 board meeting. And, at that time -- this is from the transcript -- SC&A Pinellas work group (indiscernible) the primary and secondary issues raised in SC&A's site profile review had been adequately addressed and resolved.

So why is this important to the program here? Because TBDs are very important source documents for all information that -- that is associated with the Pinellas SEC, all the background information, plus it gives the methodology that the dose constructors use in order to reconstruct doses. So the conclusion was that the basis of the review -- of how the dose reconstructions are done in general are good. The board agreed and SC&A agreed.

So that's the background stuff. Now this -- just to -- and the question is now, what -- where are the sources of radiation in Pinellas, and we characterized it different ways. You have radioactive materials versus radiation generators. Then you have the materials that are always radioactive and giving off radiation, radiation generators you have to switch on and off. When they're switched off, they're not radio -- they don't give off any radiation. And you can also characterize the sources are either potentially dispersible, you know, gas, power, or something that could get into the environment versus nondispersible radioisotopes. It's something that's encapsulated and that you can -- there's no reasonable way it can

open up. That's nondispersible. So it makes it a little bit easier to look at the different sources to just -- its characterization.

And the next four slides I'll just discuss these briefly, different sources. Okay. The -- the radioactive materials have -- these are -- this (indiscernible) Pinellas now -- have accelerated to neutron generators, which contain tritium targets. Neutron generators relied on D-T, deuterium tritium, fusion reactions to produce neutrons. You have a D-T reaction, you get 14.1 MeV neutrons and 3.5 MeV alpha particles. So these D-T reactions of deuterium tritium are a source of low-energy neutrons.

The second thing, RTGs, which are radioisotope-powered thermoelectric generators, which contain plutonium dioxide as the heat source. When you have Plutonium-38, for example, when it undergoes radioactive decay, alpha decay, it produces a great amount of heat. And this heat can be used to generate electricity from a thermoelectric generator. So that's a source of radioactive materials.

There -- there are lesser ones also. The plant used in the various borosilicate glass, which contains naturally -- naturally it contains uranium, and you have borosilicate glass, and it's somewhat radioactive. The leak-testing systems which contain Krypton-85 which is radioactive, tritium-storage systems, you don't usually -- when you have a lot of tritium, tritium can escape easily from tubing, etc., etc., so they very often -- you, like, have it tied up on metal beds that absorb the tritium, and the bedding releases the tritium then when you heat up the beds. So, at some point, they used uranium beds, which apparently absorb tritium readily. And just for general radioactive log check sources, analytical standards for lab

analysis, these are low-level radiation sources that are just used in radiation labs. So, these are the sources, potential sources, of exposure by radioactive material.

Radiation generators, as I mentioned, these are only generating radiation when they're turned on. When they're turned off, they won't generate radiation. And you have neutron generators that -- they're deuterium reactions, or D-D -- D-D and D-T reactions produce neutrons. They also produce secondary radiation. As neutrons they produce (indiscernible) these energy -- the -- also cause gamma rays and other radiation. They somewhat used also ion accelerators for ion implantation work. It wasn't a major thing and occupational extra exposures that the -- the workers had medical X-ray periodically.

We have a characterization of dispersible. What's dispersible here? And these are different isotopes. Now, tritium, which is heavy hydrogen, it's ordinary hydrogen is one proton by itself. Tritium is one proton and two neutrons. It decays by beta decay, which is -- beta decay emits electrons or positron and this 5.7 kilo-electron-volts on the average, which is really low energy. And tritium occurred in forms in the plant; you had titrated water, which, instead of H20, you had -- it's (indiscernible) -- you had T2O or -- or the tritium replaced the protium with very high hydrogen; tritium gas; and organically bound tritium which is the -- sorry -- where the tritium is bound up in the organic compound and (indiscernible) metal tritides -- and we talk a little more about metal tritides later because that's a little bit of an issue that was raised.

The other sources of dispersible radio -- radioisotopes potentially --

okay, hang on one second. Let me turn off my phone here. Okay, sorry (indiscernible).

All right. So Carbon-14, which is used in small amounts, they use it as a tracer in some solvents. Krypton-85, which is also a beta emitter. It's a noble gas, and as a noble gas, it doesn't react chemically with anything. So it's not seen as a major significant hazard in the plant. And, finally, potentially nondispersible radioisotopes plutonium, Plutonium-238 and 239 somewhat, and they were used for the RTGs, they emit alpha particles, beta particles, photons, neutrons through spontaneous fission. And uranium -- the three different isotopes and (indiscernible) uranium also emit alpha, beta, X-rays, neutrons, etc., plus they're -- as they decay, the decayed products, they also emit radiation. And finally, Nickle-63, which is a beta emitter which is used in krytrons, which are -- they're little -- they're gas-filled glass tubes and that were used in nuclear weapons as very high-speed switches.

External exposures. You have to look at external exposures of neutron and internal exposures. You have neutron generator production area, the RTG production area, and the chem lab to -- to a much lesser extent with an ion implantation accelerator. So, these are potential photon exposure sites. External exposures, tritium -- and as I mentioned before, tritium has a really low energy beta particle and very a short range, so it's not seen as an external exposure hazard, and that's generally agreed upon, not just for this site.

Krypton-85 is a potential hazard because it has enough energy to cause skin -- skin damage and potentially some of the gas might have

escaped from the leak detectors. And Carbon-14 in very small amounts, but it's also looked at. For external exposures you had neutrons in secondary radiation from the neutron generators with the RTG heat sources with the decaying plutonium. That goes with what petitioners identified because when NIOSH took (indiscernible) in the ER and SC&A is looking into all of this, the -- at the petitioner-identified sources, and it covered tritium, uranium, plutonium, Carbon-14, Krypton-85, Strontium-90, he mentioned, Cobalt-60 and thallium.

Okay. Switching a little bit. Internal dosimetry monitoring data. Where -- where do we get the data from? The tritium urine bioassays, and apparently, especially before 1990, the -- it's common with a lot of the DOE plants, they only did tritium -- they only did urine bioassays when they thought there was an actual potential for somebody to be exposed to tritium. If somebody is in an office somewhere, they might not have been monitored, had bioassays. They only did bioassays usually for people who potentially could be exposed.

Plutonium bioassays were done for the RTG project workers. They also had data area air monitoring and smear surveys where the health physics people went through the areas that had potential for tritium and plutonium, and they would test, do a smear sample and take it to the lab and test it. So tritium, the -- the ER asserts tritium is the only source of internal exposure risk, that the other isotopes aren't really a hazard. And the ER references an internal dosimetry TBD, which I mentioned before, which gives the method to reconstruct the internal doses from -- from the different types of tritium from the bioassays.

And just going a little bit into the TBD, going into the weeds a little bit, NIOSH, when they do dose reconstruction, they count the exposures to both 100 percent tritium gas and 100 percent organically bound tritium and select the one that's the most claimant favorable. Although the workers probably had limited exposure to insoluble tritium compounds like the metal tritides, NIOSH assesses all workers monitored for soluble tritium as though they were exposed to insoluble tritium at the same time. So that sentence should probably be reversed: That they assumed if you -- if someone's exposed to soluble tritium, they also assume they've been exposed to insoluble tritium. That's going to be claim -- claimant favorable, which, of course, we're looking at.

The -- over the years, potential tritium exposures and how you determine dose has been the subject of lots of discussions since we've reviewed the first Pinellas TBDs in 2016. And those reviewed generated two primary and one secondary issue related to the tritium, that's what we called it back in 2006. So, two important, and one not so important issues. After lots of discussions, papers, and reviews, they closed all issues out of 2006 -- as of 2016, except for issue two, which is we recommended that potential doses from insoluble metal tritides are not significantly -- sufficiently addressed.

After going back and forth, we ended up -- and the -- and the work group accepted NIOSH's revised methods for handling that. And it's right now in -- put in abeyance, that issues, pending NIOSH revising the internal dosimetry TBD. So, basically, we accepted their methods, but it hasn't actually appeared in the document yet.

So, as I -- as I promised earlier, a little bit about metal tritides. The metal tritides, also known as stable metal tritides, it's an example of special tritium compounds which are treated in one of the OTIBs, OTIB-66, which is calculations of dose from intake of special tritium compounds, was revised in 2020. And I'm not going to go through all the nitty-gritty of this. But the -- it is revised. SC&A, actually me, went ahead and reviewed the revised OTIB. We found that it was good, recommended to the board that it was good. This was part of the process that Kathy Behling had mentioned this morning when we reviewed OTIBs.

And just a mention that currently, since the -- the current dose TBD, which was revision 3 was issued in 2016, and that the -- that was our (indiscernible) soon after OTIB-66 revision one, neither one currently reflect its guidance, but (indiscernible) concerned about because NIOSH uses whatever the latest revision of OTIBs are when they do a dose reconstruction. So, the takeaway from the review of the current method related to metal tritides, and we had the work group, Pinellas work group, agree with it.

And just a little information, background information, this is from the OTIB: That stable is used to indicate that tritium is not easily separated through natural matrix, which is bound, so this -- this means that the material is mostly retained in the (indiscernible) resulting in much -- so what happens is that if -- if the better matrix contains the tritides is strongly retained in the lungs, then most of it's actually excluded in the urine. So, what happens if you do an analysis? (Indiscernible) just because tritides are not excreted. So that's the basic issue with metal tritides, but there's ways

to address that. This OTIB does that.

As I mentioned, you did a focused review of OTIB-66 revision one last year. We had a meeting, work group meeting, November 3, 2021, and all conditions were closed with the OTIB, and our current review will consider the absence of OTIB-66 revision one methodology significantly affects the dose reconstruction. Although, as I said before, normal NIOSH procedure is that they use whatever the latest guidance happens to be. So they're certainly going to use the latest revised guidance in the OTIB. So that was tritium.

Uranium internal dose potential. So I mentioned, depleted uranium was used in the tritium storage bed, which was a real topic of issue in the original SC&A TBD review. And we were concerned about the potential for missed depleted -- depleted uranium intakes from inhalation of loose material -- depleted uranium from cutting and machining of the beds. NIOSH subsequently investigated and (indiscernible) review that such activities were not done at Pinellas, they were done at a GE plant in Milwaukee. So, this is not an issue for Pinellas.

The borosilicate glass just normally retains about one-and-a-half percent of natural occurring uranium oxide, and as operations, the glass is chemically cut and etched. The site health physicists evaluated exposure risk and determined that the minimal external and no internal hazards were -- were present. We were looking into that also.

Plutonium. This was an issue that we've been discussing also since 2006. And after a lot of looking at it we finally (indiscernible) update 2016 of the issues expose -- the resolution matrix that the RTGs were received at

Pinellas triply encapsulated with stainless steel, and they did not open then at Pinellas. So the only chance of exposure was from surface contamination. They were never opened up. With the health physics reports the (indiscernible) slides of the capsules and the results are that the -- the contamination levels are quite low. So because of this (indiscernible) issue resolved and no further consideration necessary unless new information becomes available.

Carbon-14 internal exposure potential, and this (indiscernible) NIOSH (indiscernible) looked at it. The Florida Department of Health & Rehabilitative Services (indiscernible) information about how many (indiscernible) -- how much (indiscernible) Carbon-14 were released in the plant stacks. It was discussed at the general 2019 work group meeting. And at that meeting it was determined that the quantity of the material released was determined to be negligible and can contribute less than 1 millirem per year dose. Just in perspective, that minimum exposure to people out in the air get a lot more exposure than 1 millirem per year, so this is a very low number.

Krypton-85 -- we're just going through the list now of the isotopes that the petitioners identified. And this, again, the State of Florida gave information about how much Krypton-85 noble gas went up the stacks. And it's (indiscernible) that since it's a noble gas, it doesn't react chemically within the body when it's breathed in, then it's soon breathed out. And it's breathed in and out and doesn't bind to anything in the body. So, the ER concludes that since only a very small amounts of beta decay might take place in the lungs since it's in and out, the ER states that Krypton-85 is not a

significant internal exposure hazard, and we're re-reviewing that assumption.

Strontium-90, Cobalt-60, and Thallium-204. The petition requests that Pinellas be added to the SEC partly based on the claim of incomplete radiological characterization of Strontium-90, Cobalt-60, and Thallium-204, and beryllium. Just note, right off the bat, that beryllium is not radio -- is not a radionuclide, it's an element, and it's not a radiological hazard. It's an internal hazard from silicosis, but it's not a radiological hazard, so it's not even considered here.

The -- our preliminary review found that these three radio -- radionuclides in the Pinellas inventory did not present a sufficient internal exposure risk that should be monitored by the plant and -- for several reasons. All Cobalt-60 and Thallium-204 sources were sealed and not loose, unless there was leakage, which we're looking into. As I mentioned fairly early in this presentation, we're looking at all the incident reports to see whether there was any leakage of this into the atmosphere. Strontium-90 was present in both sealed and unsealed forms, however, the unsealed sources were very small. (Indiscernible) nuclides could potentially be used in RTGs, we haven't to date found any evidence that this was the case at Pinellas. Of course, if we discover some something, then we'll look at it.

We are doing -- we're also looking at radiation monitoring data. That's important. And a preliminary review, when you look at the two time periods, the SEC period from 2000 -- 1957 to 1990 and post SEC period from 1991 to 1997, the break point, 1990 is the targeting report where the -- the -- the health physics reports were read, and so forth, show that the

previous SEC period they improved tremendously the health physics at the plant radiation monitoring.

So, we're looking at currently to acquire five Pinellas cases that we previously reviewed by the subcommittee work group, to identify any issues with the DRs that were identified, those reviews, and to evaluate the relevance to the feasibility dose reconstruction to the SEC period. So, we're working with NIOSH. These were cases that were -- for Pinellas that we reviewed already and that -- we want to see them to see if they show any light on the data that's available isn't for actual people.

This -- this is the pre (indiscernible) period and the -- (indiscernible) before, the ER finds that Pinellas did not tear -- did not monitor potential exposed personnel and they did not find indications of lack of monitoring for the class under evaluation. So NIOSH concludes it has sufficient data to perform those reconstructions.

Okay. So this is one of the things that we were looking at, is the potential exposed personnel. As I -- I had earlier mentioned (indiscernible) as this common practice at most of these sites, they didn't monitor people who couldn't have been exposed. So, the question is, do they monitor all the people who actually were exposed, could have been exposed, and are the records available, and so forth. And (indiscernible) methods that NIOSH used for either missing data or unmonitored workers that should have been monitored, so this is an issue that we're looking at.

The ER stated that NIOSH examined many types of in vitro urinalysis record sources, and they actually found -- they looked in 2020 and found over 20,000 tritium bioassay results that target the individuals. So just on

the face of it, there's a lot of tritium bioassay results. Is it for everybody? Is it for every year? That's what's being looked at -- going to be issues we're looking at.

The (indiscernible) during SC&A for the -- the SEC period and I just wanted to mention that (indiscernible) reviewed the list of 2,500 documents that are available for Pinellas on NIOSH's computer system that we have access to. It's their Edge Computing platform. And just mentioned just recently, (indiscernible) in the last couple of weeks, there's more coming. NIOSH just conducted a large data retrieval at the Morgantown data repository and had -- came back with boxes and boxes and boxes of additional Pinellas documents that they're in the process of reviewing, scanning, and putting it into the database. So, it's an ongoing process. SC&A will review the documents, any applicable documents, once we have access to them, which should be fairly soon, I assume.

For the post (indiscernible) period, which was the ER period, the -- it's post ER period, the -- we looked at this (indiscernible). Although the SEC petition requested the evaluated period extend through 1997, NIOSH ended it in 1990. And NIOSH had several reasons: That the plant rapidly and effectively responded to the Tiger Team findings, including -- including improving its radiation monitoring program. This is getting into the details a little bit. If anyone wants to look, Tables 6 point -- dash 2 and dash 4 of the ER summarize internal monitoring data for tritium is (indiscernible) years '86 to '95 and external monitoring data for '85 to ' 95. (Indiscernible) important. The -- the ER site -- and you can look at the data that there is no trend towards higher aggregate doses after the increased monitoring that

occurred after 1990, which -- which gives you the idea that if they're doing a lot more monitoring and the aggregate doses don't go up, then maybe the monitoring that was done before didn't exclude everybody that should have been monitored. Because now you're monitoring more frequently and a lot more people and it's not going up.

(Whereupon, Ms. Cassano speaks with an individual while not muted on the meeting audio.)

DR. OSTROW: The -- another reason that they (indiscernible) in 1990 that the 1990 annual ALARA report for ionizing radiation they were finalizing shows that the bioassay program participation increased to almost the target of 80 percent supports that Pinellas greatly improved its monitoring program post 1990.

Okay. We're currently reviewing the ER's arguments for terminating the SEC evaluation period in 1990 --

(Whereupon, Dr. Cassano speaks to an individual while unmuted from the meeting audio.)

DR. OSTROW: -- basis or not and so far, we haven't found indications there are issues with exposure records that would prevent DR feasibility for that time period. So, we continue to evaluate. There's a lot of records we haven't seen yet.

We're reviewing the transition year of 1990, and this is some details of the Tiger -- from the Tiger Team report and the ER. The -- when you look at the 1991 annual ALARA program report for ionizing radiation, the increase in tritium doses for 1991, which is -- seemed like an anomaly was due to an incident and recovery operations that influenced tritium doses for only that

year, so it wasn't systemic. The -- so the -- the data just has one peak in it, but the -- it is a -- due to an incident not a systemic dose. It's just maybe a flavor of what we're actually looking at.

Petitioner concerns. This is very important. And we want to make sure that the ER address any valid petitioner concerns. So section 7.4 of the ER summarizes nine issues that NIOSH identified as petitioner concerns. Those overlap in the concerns. NIOSH characterized it, or singled them out to nine primary issues, and they give a detailed response to each.

(Whereupon, an attendee speaks unmuted from the meeting audio.)

DR. OSTROW: -- people can read it. I'm not going to go through it. But so, SC&A is evaluating the -- the petition and other petition -- petitioner submissions. (Indiscernible) NIOSH, the petition was submitted, the petitioners, until recently, have submitted additional material.

So, what have we identified to date. Okay. The nine issues that are explicitly addressed in the ER. Additionally, we identified several others -- issues that are partially covered in the ER, but they might not have been identified as the line issues that are in that section 7.4. So we want to see whether those issues that are identified in section 7.4 are addressed elsewhere in ER. So, to date -- this is preliminary -- we have not found any petitioner issues not adequately addressed in the ER. And the following slides just list some issues briefly. And I'm not going to read them -- all of them because it's -- it'll take too long. People who are interested, they can go to (indiscernible).

These are the issues (indiscernible) in the ER, and we covered some of this already, that not all the workers were monitored for the radionuclides,

only a small fraction of the workers were monitored for radioactive exposures. And some of these were answered already. The answer to number two partially, is that they didn't all have to -- workers who didn't have a potential for being exposed. Incidents we're -- we're spending a lot of time looking at incident reports. Employees falsely identifying urine samples, that's an issue. The rest of the nine of them are -- a lot of these issues are taken right out of the Tiger Team. I guess that's that.

We identified more issues that -- we're looking into the (indiscernible), whether addressed somewhere, and whether they're important. And it has to do with things like (indiscernible) comprehensive radiological surveys. Building 100 is the main building where a lot of the radioactive work was done, insufficient environmental monitoring, and so forth, and so on.

Oh. (Indiscernible) dose reconstructors constructions only reflect one work process, not the full range of work processes for those workers because the -- as we've been reading the different reports, the work processes are broken down, and they're -- they're complex, you know, step one, step two, step three. And this will take into account some missing dosimetry records, inconsistent monitoring dosimetry records, and so forth. These are just some of the issues that we're looking at.

Finally, path forward. As we said, we're still -- we're working on this. We'll continue evaluating available material that we have. There's a lot of material. Evaluating new data. And, as I mentioned earlier, NIOSH completed data retrieval at Morgantown record center. They just completed it last month, in October, and there are 110 boxes of relevant or potential-relevant material. NIOSH is currently working diligently at scanning the

material, sorting the material, characterizing it, and the process of putting it into the computer so that NIOSH can look at it and SC -- SC&A will also have access to it. So as that becomes available, we'll keep going.

We're looking at the five previous dose reconstruction cases that were done. We're gonna look at data completeness concerns for potential gaps in records. This is something that's an interesting topic. We'd like to find out the annual tritium inventories in the plant, how much tritium they have on hand, and device production records. So how many neutron generators RTGs were produced per year and see if there's any correlation to dosimetry records. Like, if they doubled the number of neutron generators that were produced in one year, did the dose also go up by a factor of two? We'd like to know that information.

We're continuing to utilize ORAUT search capabilities. They've been very cooperative to locate relevant documents. They're doing targeted document keyword searches for us and eventually available are several systems, acronyms, NOCTS -- I don't remember what it stands for -- it's basically the petitioner -- the claimant records board review system, BRS, and the CATI system, which are interview reports to see if there are any additional SEC issues. And we'll do that when it's available.

Okay. So last -- there is the last slide. I tend to speak fast, typical New Yorker. So we've finished a little bit early, I think, right? I'll take any questions.

UNIDENTIFIED SPEAKER: Thank you.

MEMBER BEACH: Hi, Steve. Josie Beach here. Steve, do you recall, did SC&A do interviews, I think, back six years ago or so? Are you aware of

those?

DR. OSTROW: No. I haven't seen the interviews. I wasn't working on this -- personally on this, six years ago. So, I don't know. Any -- my teammates --

Bob Barton, do you have any idea if they did interviews?

MEMBER BEACH: I think it was, maybe, in Kathy Abe's (ph) era.

DR. OSTROW: Okay. I --

MR. BARTON: This is -- this is Bob Barton. I -- I am not aware. Like I said, we do have access to a significant portion of the documents that were on the SRDB. And typically, those would be marked, there is a documented communication. I don't believe we've actually seen any of those listed there. So, I'm not sure if they might be held somewhere else. But I'm not aware of those interview summaries at this time. But we can certainly look into it.

MEMBER BEACH: Great.

DR. OSTROW: (Indiscernible) interviews.

MR. BARTON: And that was one of the fastest paths forward is to also look at the CATI ports because those are often very helpful with claimant statements that are made as part of the dose reconstruction process.

MEMBER BEACH: Right. And sometimes SC&A's reports aren't in that, but I know it was part of his path forward. And the other question, in the same venue is, are there plans for any future interviews? SC&A planning any moving forward?

MR. BARTON: Not at this time. I think as we're performing these targeted keyword searches, and really kind of start to really dig down, what

we want to really look at, we can have more targeted idea of what people want to talk to, about some of these issues. As Steve's presentation indicated, a lot of these were sort of adjudicated way back, you know, 2016. But it actually started back in 2006. However, when new information comes to light, we'll certainly want to follow that up with talking with the appropriate people who were at the site, but as of now there are no interviews (indiscernible).

DR. CASSANO: Hi. Tori Cassano here. I have a question. Going back to the krypton issue. Do you know how NIOSH made the assumption that krypton would be immediately exhaled after it was inhaled? Because my thoughts are that krypton is heavier gas than air, and some of the literature actually indicates that it does get deposited at the bottom of lung and that -- and that's how it acts as an asphyxiant. So I'm wondering -- I know you said you were going to investigate that assumption, but I'm wondering if you know how they came to that assumption.

DR. OSTROW: I don't know offhand how they came to that assumption. It's something we will look at though. There's (indiscernible) models. We have to look into that or find out from NIOSH how they -- what they assumed.

DR. CASSANO: Okay. Well, thanks, because -- thanks for looking at that. Appreciate it.

DR. OSTROW: Any other questions or comments?

UNIDENTIFIED SPEAKER: (Indiscernible) this site, do you have any sense of -- I know you've run into difficulties with access to documents, and things like that. So, it's hard to give us an idea on when we can expect a

report from you that we could then have our identified subgroup go over it and then NIOSH respond. You've identified quite a number of issues here that you're still looking into that we can then move forward with more determination, review of all the materials, and the various opinions that will be presented by you, as well as those in the ER by NIOSH?

MR. BARTON: Well, certainly a lot of moving parts here. But I think now that we have this new avenue to essentially use ORAUT to do these targeted keyword searches, I think things will move a lot faster. The other things that are up in the air that we really don't have timing on are things like the NOCTS and the CATI reports, which we really don't know when those might become available. But perhaps we can work something out where we can get that through the same avenue as the document requests. But that is certainly something we usually like to include in our SEC reviews. Depending on projected schedule on those items, we may elect to simply cut it off here and see where we're at as far as an SEC determination, while perhaps keeping certain parts of it open, depending on where the work group comes out on it. I think --

UNIDENTIFIED SPEAKER: -- just a couple months ago NIOSH just discovered like a hundred-plus boxes of more stuff, and we don't have access to the detail of what's in it (indiscernible) that NIOSH knows at this stage either, the detail of what's in it.

MR. BARTON: You certainly don't want to just continue to carry it and say --

UNIDENTIFIED SPEAKER: No.

MR. BARTON: -- ad nauseam just waiting for certain modules --

UNIDENTIFIED SPEAKER: (Indiscernible) discipline what we have and insufficient or NIOSH has just made some determinations, but we have to be sure that it is backed up by records and your documentation that you're searching for. So, I know you can't give us a -- go ahead.

MEMBER BEACH: So, my question went back to what Steve just was talking about the -- the new documents. Can you give us an idea, NIOSH possibly, of where those are and what process they're in? Have you dug into the boxes? Are they handy? close?

UNIDENTIFIED SPEAKER: Hi, yes. So we conducted a data capture in May and also October. We have received from OTC review about 14,000 pages, 195 documents from our May data capture. Those are currently with ORAUT going through review before we put those in the SRDB, which I've let Steve -- he will be notified as soon as those are available.

MEMBER BEACH: Thank you.

UNIDENTIFIED SPEAKER: (Indiscernible) --

CHAIR ANDERSON: Go ahead (indiscernible).

UNIDENTIFIED SPEAKER: I just -- I just also want to make sure that people knew that Phil has left the -- the board and Poston (ph) has then left the board. I am now the new work group chair. I would like to be kept in the loop with that as this information comes out. And we'll -- we'll slowly push forward. I just wanted people to realize that we are re-establishing the Pantex work group and that I am now the chair of it. Thanks.

UNIDENTIFIED SPEAKER: That's correct.

CHAIR ANDERSON: Other -- other questions?

DR. OSTROW. Okay. Thanks. Thanks a lot.

CHAIR ANDERSON: I do have -- we are planning to have the public comment was targeted to begin at 5:00 and at six o'clock. Looking at the list of the number of people who've signed up, we'd really like to give everybody an opportunity to speak. It doesn't look to be like we'll be able to get everybody through in an hour if we wait until then. We also have another conflict issue that -- while it's nice sunny weather here, the airlines are already in touch with several of us and our schedules have been changed for flights home tonight. So, we're -- two of us, at least, have to leave here by 6:30. So if the public could -- we could begin the session a little early.

I notice there's quite a number of the individuals here. We could begin right now if some of you would like to start speaking. It looks to me like the list is 15. Prior to today's meeting, we had one person sign up. So we were very thrilled actually, to see so many of you willing to come out and come here and -- and speak to us. But unfortunately, the way that scheduling was done, we didn't allow enough time and that then impinged upon the flights, planning the government travel, which is not the simplest thing to do.

So two of us will be leaving here about 6:30. The remainder -- others have already made plans to -- well, you're leaving early, too -- are gonna be here and are also hopefully going to be able to stay attached, even though they're spread out from West Coast to the north of the East Coast. So I would ask if -- if you want to start now, we certainly can.

UNIDENTIFIED SPEAKER: Yes.

CHAIR ANDERSON: Okay. Well, let's get going then. Thank you.

MEMBER CLAWSON: And let's -- let's -- this is Brad. Let's make sure

that we start with the Pinellas --

CHAIR ANDERSON: Yes.

MEMBER CLAWSON: -- people. We've got a lot of other people that are talking, too, but I'd like the Pinellas first.

CHAIR ANDERSON: Most of those that signed up are Pinellas, and they don't say which they are, but I -- I think they are. And so, we'll start with Denise Degarmo. I saw you there, so --

DR. DEGARMO: I'm hobbling. I just had total knee reconstruction surgery. So, anyway, I'm Dr. Denise Degarmo. I have spoken to a whole lot. It's really good to see you face to face. And we really appreciate the fact that you did come down here. The claimants have been struggling with this issue for a long time. They've lost hope. They've lost faith in the process. So, to have you here is a really nice step to maybe re-establish some communication between not only the petitioners but the claimants and yourself. So greatly appreciate it and thank you.

As you know, I have had several major challenges in trying to access information, data, and so forth. But there is a tiny glimmer of hope that I did want to share with you. As I'm sure you know, or maybe you don't know, on August 15, 2020, I was pretty frustrated, so I contacted the secretaries of Department of Energy, Department of Labor, and HHS, and conveyed some of my concerns about, especially data coming from the Department of Energy and NIOSH that was used in the petition evaluation report. I cc'd Dr. Howard because I tend to work with transparency, so I wanted you all to be aware of what I was doing.

And much to my surprise, secretary Granholm responded the day after

the receipt of this letter and appointed [identifying information redacted], who's one of her FOIA officers, to begin to work with me in getting access to all of the reference material in the PER. He has gone on to assign contractor [identifying information redacted] to collect and clear the documents. And as of November 16, 2022, Ms. Vasquez told me that she was now working on the first partial of the FOIA documents and would be in touch and keep me informed. While I don't have anything yet, I feel like we're moving forward, and that will provide the petitioners and claimants better access to truly evaluate what was being done, how it was achieved, and what data is being used. So, we're pretty pleased about that.

The second issue I'm working with the DOE on is that there is quite a few missing employee files. And when I say missing -- I brought this up to the board before, but to refresh your memory -- one of my claimants received her federal employment file from the Veterans Administration with a letter stating that they had quite a few of the Pinellas employees' files and had tried to return them to GE, to Lockheed Martin, Morgantown, anybody who would take them. And nobody took them, and that they were in the process of trying to track down these folks to return all their -- their employee files to them. They were concerned that especially the dosimetry that was available, and that wasn't very much, and the medical records, pretty important, and should be in the hands of those who needed it.

Mr. Morris turned, I guess, the assignment over to -- to Greg Lewis, who called me on the phone, said that he would be working on this, trying to track down what the situation was, what the story was. I contacted him two

weeks ago; he has not returned my question. I emailed him. So I have no idea where we are in the process of finding these files. So, what I intend to do is go back to Mr. Morris and remind him that we're still in need of these files.

As a point that I think that you should know about that of the -- and I have a small (indiscernible). I don't work with a lot of folks, but of the folks that I do work with, over a third of them have absolutely no files on record with the DOE or DOL, which raises concerns about if there is something that they were exposed to or if they had dosimetry, we don't have it. The other thing of interest I think that you should know is out of that third, all of them are African-Americans except two individuals. So I find that a little suspicious as to why this happened to a large segment of the Pinellas employees.

I also am still working on getting -- I still would like to see the extension of the SEC through 1997. But I'm -- also contacted the secretary of the Department of Labor and provided him with evidence regarding the temporary plant, the 1956 through 1957 temporary plant. It is my understanding that Rachel Pond refused to identify that as a covered facility because she said there was no evidence that there was any radiologic material at that temporary facility. In the Department of Energy 1987 environmental summary preliminary report two radiological materials were identified. So, I'm concerned. Well, I haven't heard from her either as to what the process is going to be about this, and I intend to follow up. But how are we missing some of these very important pieces of information and claimants are not able to take advantage of the dose -- doses they may

have received from that facility, and I find that quite bothersome.

Additionally, this has been a very fruitful trip to Pinellas, and I have received lots of evidence that I will be sharing with you once I go through it. A lot of it has to do with exposures, monitoring, and so forth. But I was alerted to the fact that there were approximately 30 to 35 General Electric X-ray Milwaukee folks, so were actually transferred into Pinellas into -- although there're only a couple of those folks still living, they were not aware that their dosimetry from Milwaukee, if there was any, was used in their dose reconstructions. So, something I need to follow up on.

Also, you know, we hear over and over and over again, that most of the materials that they recovered by the SC&A were triply encapsulated, and therefore, the likelihood of exposure is pretty small. However, some of the information that I received during this trip reveals some very interesting information about contamination or strontium that was disposed of in the sanitary drains and has made its way into -- and I have that data. I just have to get it organized. And there are strontium and uranium in tritium readings in some of the local rivers, Boca Ciega for one, and Long Bayou.

The only thing I also came across -- and I wish I had it with me -- was a 1994 article that was in the "Tampa Bay Times" where the DOE went to the press and said, you know, sorry to inform you -- I'm ad-libbing -- I'm -- you know, I should be very correct. I'm sorry -- we wanted to let you know that we had several barrels of radioactive waste buried on the property. And oh, by the way, we have a plutonium leak. So, we want to let people know that they're in no danger. It's not a big deal. We'll take care of it. So, we have some of that kind of information about seepage and leakage and --

that isn't being accounted for.

I gave Mr. Calhoun today a historical record report labeled GEPP-970044070 that provides almost 15 pages of incidents that when I have tried to cross-reference, cannot necessarily be tied to any of the -- the information on hand about incidents. So I wanted to see if you would cross-reference those to help us understand the incidents that occurred. And these occurred between 1957 and 1985. If you would like, I can send those and make those available to you, as well, or I'm sure Mr. Calhoun will do the same.

I keep going back to the Tiger Team report, and I'm very glad that that has come up in the SC&A evaluation. Because in a lot of the documents that we're getting from microfilm or the health physicists' records, we keep getting a repeat of incomplete documentation of dose assessments. That seems to be contrary to this notion we can do it.

I understand that there is surrogate data you can use, and all the -- I understand that the process to replicate these doses might be possible. But when we're dealing with language in evidence that suggests that these items are flawed to begin with, how can we guarantee that what people were exposed to is actually what is being shown in the dose reconstruction. I -- I cannot wrap my head around it. It just seems to be an inconsistency.

There's also, you know, this -- statements about no formal documentation of investigations and personal exposure anomalies. That seems to be a huge problem.

And thank you, Mr. Clawson, I was kind of wondering what the deal was with the work group, and who would be leading that up, and I

appreciate you identifying that. But, overall, -- interviews -- Ms. Beach, Dr. Beach -- there were interviews done in 2006. They're referenced throughout various materials. They interviewed a whole lot of folks, I think, a year ago or two years ago. You need to listen to these folks. I've now worked with them -- not as long as, you know, some people, but the more that I talk to them, and the more that I hear about what they experienced, doesn't seem to reflect anything that we are hearing in the formal documents, the DOE and the NIOSH and folks. We need to pay better attention to what they have to say to us. Because if you look hard enough, you can find the evidence to support what they're saying.

They're tired. I've worked hard, I will continue to work. These people mean something. They've waited a long time. In some cases, the plant has really not been explored. I think that early on, it was just, you know, kind of a throwaway plant. They didn't do anything important there, the people didn't give them exposure. You know, the bottom line is we have a whole lot of sick people who have many of the 22 cancers associated with the special exposure cohort. If they have it and we recognize that there is this relationship; what's the problem?

I found the document written in 1957 by the Atomic Energy Commission about knowing back then there were going to be problems, (indiscernible) that there were going to be certain illnesses associated with this work and that these -- all of these facilities needed to keep track somewhere in their records of how many of these illnesses were showing up.

I don't know that we've come as far as I would like to see us. I think tonight you see a lot of people; I hope you will take the time to listen to

them all. They are important. They have a story to tell. And I think we all could learn a lot from them. And that's the whole reason I invited you down. They can tell the story of Pinellas much better than an outsider like me. Thank you.

CHAIR ANDERSON: Thank you very much. Since we've been corresponding and getting material from you, we gave you a little more time than usual, but you really have the data and we really appreciate all the -- all that you've done for them.

DR. DEGARMO: Thank you.

CHAIR ANDERSON: Yes. So next, Mr. Delmar Aylers (ph). So we'd like to keep comments just as concise as you can in five minutes. If you have anything in writing, it doesn't have to be fancy, please leave it with us and we can add it to the record. So --

MEMBER BEACH: I'd like to make a suggestion. Just -- sorry. Maybe tell who's going to be next --

CHAIR ANDERSON: Okay.

MEMBER BEACH: -- so that that person can be getting ready and --

CHAIR ANDERSON: -- (indiscernible) Kathy.

MR. AYLERS: Hello. I am Delmar Aylers. I received my degree in physics in 1963, and my first job was at the Pinellas Plant. I worked here until the plant closed in 1997, and I worked in my job -- principally, I was a process developer engineer. I worked in many different locations in the plant, and I was familiar with mainly tritium -- tritium exposures and also leach field gas, (indiscernible) 85. (Indiscernible) exhaust the area.

In the early years I was there, most of the beds were in glass, encased

in glass and the tubes were in glass. So glass accidents did happen, and breakages are -- exist for some of them but not for all of them. One of my other tasks was in (indiscernible) where Krypton-85 was pressurized into neutron tubes, and then the neutron tubes were put on a Geiger counter to see if any tritium was left in there, which -- Krypton-85 was left in there, which would show that they were leak checked or field leaks checked.

One of my products -- I, myself, did do work in several -- one of the times I was sitting in there, in the chair in there, and the count was at a certain level. But I had to do a real count on it, but I was outside. When I came back, the code was considerably higher. Turned out that the trip -- Krypton-85 bed was behind me and another metal room, it might not be near those exposure was going through -- through the counter.

As you know, there was a lot of testing done on neutron tubes and neutron generators. And particularly interested after explosive devices came into existence where the --these pouches were actually blown apart, the neutron generators. The analyses were done in the laboratory area. We had a gas lab, we had a chem lab, and we had other labs that handled these parts. And when you've blown up, they're not especially in good condition for your exposure. I'm sure that exposure was relevant and did occur in those areas.

There are other examples, but I won't go into them. But there are a number of big concerns about possible tritium exposure. Thank you.

CHAIR ANDERSON: Thank you very much. Right on time. Good job. It's a --it's a (indiscernible) -- Aylers (ph), okay.

MR. AYLERS: Yes. We met in the plant 55 years ago and got married.

CHAIR ANDERSON: Congratulations. Yeah.

MR. AYLERS (PH): My uterine cancer was very hard on my family. We have a severely handicapped child that needed me. My 80-year-old mother had just moved in with us when I was diagnosed. She took care of me and kept the house running during that time. I was only 18 when I started at GE. I had absolutely no idea what we were making there or the toxic substances being used out there. We were never told about it or had -- or any of the incidents that happened. We were never told. Everything was kept secret.

Because of my cancer I was out of work for eight months and ended up with some neuropathy in my feet. Steps are still hard for me to do. I have been working on this claim for 10 years now. Dr. Denise has worked very hard for us but has hit roadblocks due to the lack of information she needed. So many times we have been frustrated and let down. NIOSH and DCAS have not done their job for our plant. I had a urine test and beryllium was found. That should show that it was in the air. We have all suffered enough. And I hope you can find it in your hearts to approve this SEC petition today. Thank you for your time and consideration.

CHAIR ANDERSON: Thank you. I just want to let everybody know that this is all being transcribed. So we really don't want to have you give us necessarily personal information. So, if -- if you want to, can, but this will go into a public record. So, we prefer -- or after the fact, we can take out any identifiers, if you wish. So, we really don't want to have spreading around the names of people with certain illnesses. Strange things happen at times. We like to keep our public record as nonpublic but take advantage of

the information provided. So, appreciate it.

Okay. Next is Shirley Thornton. And then after that is Elton Scott. And then after that is William Darling (ph).

MS. THORNTON: Good afternoon to everyone. Board, I've -- I just appreciate you so much. Nobody can tell my story the way I want you-all to hear my story. I'm gonna be very brief. I want you to always remember me telling you this. Shirley Thornton said time is not on my side. Time is not on Shirley's side.

I started at the plant 25 years ago, I was in human resources. And my job -- I had to go throughout the entire plant because I was the suggestion manager -- suggestions, when employees made suggestions. It took me into every part of the plant. I had no idea that it was so toxic in that building. But from 1978 until right now, this moment, I am only in -- in face only, I am only Shirley Thornton.

My whole life is not the same. I can't stand up to do what I enjoy doing unless -- I'm a gospel singer. I can't do that. I have to sit down because I was diagnosed with beryllium disease. I can't walk from here to the restroom without help. I can't cook my own meals. I have to have someone come in or go out and bring my meals to me. There have been times I couldn't even wash my whole body. I still can't take a shower by myself. My whole life has changed.

I'm just Shirley Thornton in name only. And I want you-all to know that I am so grateful to God that I'm still alive. But I want you to know that time is precious. And time is not on my side. I've had two strokes, I've had breast cancer, I've got beryllium disease. Come on, you got to work with

me. You got to work with us. You got to remember: I heard Shirley Thornton say time is not on her side. It's not on our side.

I heard a coworker, dear friend of mine, how many times does he fall down, can't get up. The balance -- my balance is off. His balance is off. Please listen to us today. And whatever you do, take it to heart that we need you to expedite whatever you do in a qualitative way. Expedite this process. We've been patient. We've been praying. Time is not on our side. Only God knows the days, the hours, the minutes that we have on this earth.

But the one thing I want you all to take back with you today: I can do something to help somebody. If I do this through this process, you can truly say in the presence of God, that if I have helped one somebody, then all of this has not been in vain. And I just want to say thank you from the bottom of my heart. My children thank you. I wish so much that on Sunday mornings I was able to go up into the choir stand and sing out to God. That's my God-given gift. I can't do that without Eurell (ph), he's like my son, he helps me to sit down, to stand up, because my balance is off. Diabetic I am. All of these things.

I'm still alive and I thank you. I thank God for each of you. But I want you to listen to our hearts because we need you to do a qualitative expeditious -- speed the process up but come back to us and help us because we can't do this without you. And I say thank you. Thank you.

CHAIR ANDERSON: Thank --

MS. THORNTON: God bless each of you.

CHAIR ANDERSON: Thank you for coming out. Next is Elton Scott.

We need to have you use the microphone so we can record it. We can hear you otherwise, but the court reporter can't take it down.

MR. SCOTT: Well, good evening. Thank everybody for coming out (indiscernible) hear what we got to say. I started out in the plant in '76 in the machine shop where we made all the components and parts for the neutron generator. I also worked in the final machine shop where we cut open the final product to put testing -- you know, you had to take everything off so you can see inside. So, for that, I began into maintenance. I got into machine repair. Once I got in machine repair, I worked everywhere in the plant. I mean, anything that was in the plant (indiscernible) where we slammed the product against the wall to check it, worked in where we blew them up, worked in the area where they built the thermal batteries, anywhere in the plant.

I worked all of the chemical plating and stuff. I worked all that equipment. And in that time, I lost partners. Since then, I've lost family members, and whole lot of friends and coworkers. It just that -- the thing that I think in my mind is that all the spots that did what we did to -- continuous effort for the goodness of the country that have already got this SEC cohort. I don't understand why it was so easy for them to get it, and it's so hard for us to get it. It seem like to me if one got it, everybody should have got it. That's just me. That's just me.

But again, it's just (indiscernible) it always seem like the only people that were getting anything out of it was surviving family members. You only get paid when somebody pass. We've had all kinds of meetings. We've had politicians and everything come to these different meetings and promise us

they're going to help, but here we are still.

I was here for the original meeting 20 years ago (indiscernible) when they told us this is available to you, no problems when you get it. You don't need to get a lawyer. We should have got a class action suit right then and everybody should've signed up. But, like I say, once again, here we are.

My thing is, I'm glad you guys are here to hear us. Hopefully, some good will come of it. Like I said, I've been through a lot of meetings and nothing yet. I've had the cancers. Matter of fact, I've had two cancers, but I'm still here by the grace of God. Anyway --

CHAIR ANDERSON: Thank you.

MR. SCOTT: -- thank you guys for coming.

CHAIR ANDERSON: Thank you very much. So William Darling and then Daisy Beale (ph) or Sherry Scott? (Indiscernible.)

MR. DARLING: Good evening. I'm William Darling. I'm so emotional right now. I think I can get through this. Just been through so much. My goal here today is to inform you on how my work at the Pinellas Plant has impacted my life.

My Pinellas Plant work history demonstrates that I worked in most areas in the plant. There's not much that I wasn't exposed to, such as the radioactive spills I had to clean up without the proper attire, cleaning walls in highly contaminated areas without the proper training or the proper attire, and at the time when I was into tool room, working in tool rooms, I had to handle contaminated parts and tools.

Later on, I was promoted to a computer programmer, whereas I worked upstairs in the computer room. And believe it or not, the entire

flooring was contaminated with asbestos -- asbestos. We had to remove the tile, contaminated tile at that, and all of the exposure I got from that, not to even mention the computer room walls upstairs were contaminated also with asbestos. The ceiling -- but here's the -- here's the tough part. We were in there working while the asbestos being removed. We had no protective clothing. We had no mask. Nothing. Total exposure.

And just reflecting back, the workers in the area removing the darn stuff had all kind of protective clothing on, white jackets, the masks, the full gear. Unbelievable. Not only that, some of my other job-related duties took me to areas where we had spills, where actually -- well, let me backtrack a little bit.

Actually, the spills that I had to clean is when I was on the janitorial (indiscernible), and we had to clean the contamination and we didn't have proper clothing to do it. I'm getting off schedule and I know other people want to come up, so let me finish up now.

Now, some of the good things that have happened to me since I got all of this exposure. I have COPD. Just last week I was admitted to the hospital. I couldn't breathe. How many of you know how it feel to be under water and you come up for air and there's a structure there and you can't come up. That's how I feel when my COPD is acting up. And when that happens, my oxygen doesn't work. These chemicals don't work. And all of the other machines I have at the house don't work. I have to go to the hospital.

I went into the hospital. They took care of the situation. And now I'm good to go. In other words, I'm good until the next crisis. And I never

know when it's gonna happen.

So, listen, we're not (indiscernible) to GE or Martin -- GE at the time, as a young man, 24. I was there for, what, 25 years. But I had the assurance that the company was going to take care of me, but I was wrong. I was exposed and then now we have to go through all of these channels to be true taken care. So, I just don't understand it.

So, listen, there are people who are worse off than I am, and I realize that. And I'm hoping that the board, all of you, are listening to all of us and that you will make it right. We need it. We're not getting any younger. My goodness, I started at 24 and I'm 70-plus now, and I have all these things going on in my body. So, listen, I'm glad that you're listening to us, but please, take care of us.

CHAIR ANDERSON: Thank you very much. Appreciate your comments.

MR. DARLING: Yes.

CHAIR ANDERSON: Next is Daisy Beale (ph) and then Sherry Scott.

MS. SCOTT: Good afternoon.

CHAIR ANDERSON: Good afternoon.

MS. SCOTT: I'm so glad that you-all came to hear us. And I feel like Shirley Thornton when she said time is not on our side. My husband passed away six years ago (indiscernible) answer, and I don't want this to happen to me to leave my loved ones behind. There are so many ailments that has happened because of my employment with Pinellas Plant, and I want to start with those.

Those conditions include (indiscernible) doses, breast cancer, type-two

diabetes, neuropathy, stage-three kidney disease, thyroid trouble, and the list goes on and on. Being employed with the Pinellas Plant started back in 1968. And when I started, I thought I was going to a plant that made refrigerators and washing machines and dryers and all of that. Little did I know what they really did.

I started as a secretary. And in that -- and that position allowed me to go through many areas of the plant. I worked as a production and inventory secretary across the hall -- directly across the hall from area eight where my husband worked as a physicist.

I worked as a secretary in equipment engineering in areas 150, 103, 106, and 104, and it required me to travel to these areas and other areas for the equipment engineering person's machine shop supervisor. And that was some bad stuff in machine shop, and also in the tool room. I worked as a calibration secretary, I'm not sure of that area. And then I worked as a product engineering secretary that required that I go through all areas of the plant.

And then I worked as a research -- online researcher in the technical information center, which required the same. And lastly, I worked in purchasing. And there was radioactive material directly across from me in the hallway to be shipped to Savannah River. All of these areas included tritium, mercury, depleted uranium, and you name it. And they think that because we were secretaries, oh, we didn't get these diseases. Oh, yes, we did, because we had to travel from area to area and work with the product engineers. And I plead with you before -- before I leave this world, before I leave my only great grand, I plead, I beg that you not linger. Pinellas Plant

took my husband, but I plead with you all not let me leave without some satisfaction. I thank you. I thank you for coming. I thank you for Denise who's been so great. Thank you so much.

CHAIR ANDERSON: Thank you very much. Appreciate your comments.

Next to Sherry Scott then Robert Pasart (ph).

MS. SCOTT: Hey, good afternoon. I started working in the Pinellas Plant in 1979, and I ended my work there in 1995. I was thinking about, you know, just writing something down and I -- I decided to write The Good, the Bad and the Ugly. I think it might be a movie named after that. But, anyway, I -- I like to start off with when I started working there, it did supply my necessities to help take care of the family. So that's the good, okay.

And when I worked there, I worked as an inspector all -- most all the time that I spent in the Pinellas Plant just inspecting parts. And I used to kind of ask questions about the areas that I worked in, and the only thing they would tell us, everything is confidential. And I really want to know some of the con -- confidential things, but it was not allowed to be explained to us what we was -- what we was handling and what we was working with. So, as an inspector, so most of the product that I handled, I thought was, you know, you had been -- been in the oven and, you know, and just passed down and maybe it wasn't no harm, but I found out just being in the plant it was very harmful to all of us. And I've seeing many young people that worked there have passed on, but some of us still is alive and that's a -- that's from the grace of God, and I thank him for that.

And the bad, I would say that just being an inspector and just handling parts and being in the environment -- because I just think that the environment of working in the plant have took -- have took control of a lot of our lives and it cause harm to the body. My mother is 89 years old, and her health is much better than mine, you know. So, I'm grateful for that. But some of the things -- I've had a lot of surgeries. And just to start out with some of the things, I'm not gonna name everything that -- that was taken out of this body, but I'm still alive. Oh, gallbladder -- and in one year I had three surgeries right behind one another in one year, and that was a lot of surgeries. I had a cysts removed off of my eye lids, and I have nodules in different areas of my body, thyroid, breast, lungs, so it's just so, so much have happened to us, diabetes, and I look at my mom and my dad history that there's no diabetes in -- in -- in their lives. He didn't have diabetes, but he's deceased. My mom, like I said, is 89 years old. She don't have no trace of diabetes, arthritis. I had knee replacement.

And then also, the ugly, I would say our children. What will happen to our children? You know, I had -- we had -- well, it was my husband came up and spoke, but we had a little boy at the time going to the new school on the -- on the plant site. And I'm just wondering about them, you know. What would happen to them. When they see some of these things that -- that will come in their lives, and then they may wonder where did this stuff come from, you know, why do I have this?

And -- and what else I -- I just want to say that people call me all the time that worked in the plant, so, you know, that I just talked to a doctor not long ago that worked out there and she said I had -- I had to have a

kidney removed because of kidney cancer. And I was wondering where that come from. And then I let her know, you probably -- it probably, when you work there, you -- it may have -- you may have gone through some of that -- some of that stuff that was in the plant.

You couldn't see it, but we worked around it. So, it was in the atmosphere and even in the water. As we look at other places that's going through the same -- similar things that we're going through. It also could be in the water. We drink the water from the plant, you know. So I'd just like to say the good, the bad and the ugly.

CHAIR ANDERSON: Thank you very much. And I want you to all know we really appreciate of all of the various groups that we've come and spoken with, you're the first group that really has adhered pretty closely to the time lines, and you've managed to give us the kind of information we need in a short period of time. So that is greatly appreciated.

So next up is Robert Pasart (ph). Now, that's a challenge to the rest of you to keep the time.

UNIDENTIFIED SPEAKER: Would this be easier?

MR. PASART (PH): Yeah, that'd be better. Thank you. Yeah, my name is Robert Pasart (ph), and I had 34 years in the plant, and I had nine suits -- nine different supervisory areas. I was -- we are (indiscernible) -- they would come in with the satellite. They had three cars with 12 people in there with machine guns. We got eight sources into 400 building, that was 400, and there it was also (indiscernible) and neutron generators --

(Whereupon, the speaker's audio was lost.)

MR. PASART (PH): I was (indiscernible) job and right across the hall,

they would receive beryllium. And I looked at that, and I could -- I could see it was in the air. And that's why a lot of these people got beryllium and they were also used in the furnaces down there in area 104. So that's why a lot of people got beryllium because it just permeated throughout the plant.

Not only that, 83 drums of chemicals were buried on the back 40. And then there was 83 drums of (indiscernible) buried down the back 40. We had 40 -- 83 -- let's see, what was it -- radioactive drums. We had a HAZMAT in there. He was supposed to take every one of the radioactive parts and put them (indiscernible) drums. Lo and behold, he died of cancer. He was 280 pounds.

I went up to see him. He was 150 pounds. He could -- he would open his eyes. He did -- he knew it was me. And he said, "Dave, all I want to do is live long enough to see my daughter's wedding." That was so sad. That's all I've got.

CHAIR ANDERSON: Thank you very much.

Next is your Eurell (ph) Darling.

MR. DARLING: That's me just (indiscernible).

CHAIR ANDERSON: Yeah. And then Christine Foley (ph).

MR. DARLING: I'm Eurell (ph) Darling. I'm the one that talk a lot, but I'm gonna try to hold it down. I have two words for you-all: Analysis and reality. This is reality. What you see right here is reality. All of the people -- I don't know anyone that worked at the plant that does not have some type of illness. If you look at me, I don't look like what I've been through. I had cancer, I got -- I did diabetes, I've had six surgeries this year, trying to find out why do I have lymph nodes all through my body.

But analysis keeps saying we had nothing going on in the plant, nothing going on in the plant; everything is good. A list right here that I want to share with you-all, and I want you guys to take it with you. There are 600 names on this list that are dead from GE. Think back all your life, think of 600 people that you know that have died at your plant where you worked. I worked 23 years in the sheriff's department. I can't think of 600-and-some people that we even buried or had to go to service for any of those people.

There is something really, really wrong with this analysis that everybody keep coming up with and -- and -- and saying that there is no size or traces of radiation at GE. I worked into (indiscernible) exhaust with that young lady's husband, [identifying information redacted].

One of the best engineers in the plant. He died. I watched him die. I watched this man go from almost 200-some pounds to nothing. He was one of the greatest leaders you could ever get in a community. Matter of fact, I worked and serviced the community that he was -- was over. I was the deputy there.

Ladies and gentlemen, we have a serious, serious problem. I worked in tube exhaust, and in tube exhaust -- I will tell you this, and I'm not trying to make this a black and white issue -- but the majority of the people that worked in tube exhaust was black. The majority of the records that are missing are black. We worked in exhaust tube exhaust. There's 35 names on the list, 35. There's only six of us left on that list.

It scares me to death every time they say somebody have died at GE because the first thing I want to know, was it in tube exhaust? Because

that's where I worked, including all over the plant because I was an escort and had one of the highest clearances there that -- that they'd give you, that DOE would give you. Had one of the highest clearances, so they send me anywhere and everywhere and gopher me out to all different places to work.

But ladies and gentlemen, I'm not going to hold you much longer. I appreciate you guys coming, but you guys gotta think about analysis and reality. Reality is that we got over 635 people who have died from that plant so far. Three just in the last month, and all three I'm talking about right now is all black. Have a nice day.

CHAIR ANDERSON: Thank you.

Christine Foley (ph) and then Susan Powell then Vivian Newkirk.

MS. FOLEY (PH): Hello. My -- my dad, and my mom's husband [identifying information redacted] worked at GE from 1961 till 1992. He was one of the most dedicated employees out there. He hardly ever took vacation. And he not only worked at GE, but he was sent to Los Alamos, Sandia, Livermore, (indiscernible). He was exposed to a lot of toxic radioactive materials. And in 2012 he got diagnosed with cancer, many cancers, and they told him he had three to six months to live.

[identifying information redacted] sat him down, my mom, my brother over here in a room and said, we want to know -- we know where you worked. We want to know what you were exposed to out there, and he wouldn't tell them. And they said, you need to tell us what you were exposed to. They knew. He was so disfigured. He was the most handsome Irish man, but he looked like a monster when he died. He went from 158

pounds to 85 pounds. His teeth fell out. His spine was (indiscernible), everything disintegrated.

We begged him to get a feeding tube, and he said I'm ready to go. But we weren't ready, and he agreed to get it, but it -- it didn't -- we did get six years extra. Other than the three to six months they said, but it was a miserable six-and-a-half years. But he was grateful for every day. He wrote in a journal every day. You know, he was happy to wake up and happy to go to bed, and that's -- that's our story.

UNIDENTIFIED SPEAKER: He was an excellent employee.

MS. FOLEY (PH): He made my mom and I promise on the way to Moffitt don't you two ever sue. He didn't believe in suing, but he did apply for the compensation. And he was so sick, he couldn't finish the paperwork and got denied. But it -- it -- it's just heartbreaking. And I know a lot of these people are in the same situation.

Thank you. Thank you.

CHAIR ANDERSON: Thank you.

MS. FOLEY: I have some pictures.

CHAIR ANDERSON: Is there Susan Powell? Vivian Newkirk or Susan Powell? Okay, fine.

UNIDENTIFIED SPEAKER: (Indiscernible.)

CHAIR ANDERSON: Oh, no, sad.

UNIDENTIFIED SPEAKER: Good evening. I was employed at the Pinellas Plant for 25 years. I started on June 5, 1972, and I worked through September 22, 1997. I worked in seven different positions while I was employed there. The first position that I held was an assembler/operator

and where our team (indiscernible) leads and solder components to circuit boards. And occasionally I did some smaller tasks in resin casting (indiscernible) area.

And after working in those areas, I worked six other positions. I worked as a flexor writer (ph) operator, a design definition clerk, a technical publication compiler, and a design console aide in the drafting department and also a facilities design aide in the facilities drafting department.

And when I was working in the design control aide department and the facilities design aide, I had to deliver drawing prints all over the building -- throughout building 100 to engineers, other staff to sign off -- to review and sign off on those drawings. And whenever they would finish reviewing and sign off -- and most times I went back to pick them up, so I was up the hallways and all over the 100 there almost daily. And I believe, you know, while I was up and down those halls, I was exposed to toxic substances.

And then on July 8, 2019, I was diagnosed with breast cancer. I clearly remember the day. Earlier that day I had visited with my husband who was in rehab recovering from emergency brain surgery because of subdural hematoma. At that time, I had no idea it will be the beginning of a long, challenging journey for myself and my family. Over the next few weeks, I endured many tests and examination. Waiting on the result -- results was very stressful, but I learned -- I leaned on my faith to stay positive and stay the course.

After the medical tests I had to have surgery to remove the cancer in my right breast, and then surgery to -- to place a port in my chest for chemotherapy treatments. After the surgery, I was not able to take care of

my husband. So my daughter took a leave of absence from her job to take care of him while I was recovering from my surgeries. And then after I had my surgeries, I had to have chemotherapy.

I was told that I was at high risk for the cancer to return. So, two types of strong chemotherapy drugs were recommended. I endured 16 treatments of chemotherapy over five months. During that time most of my hair fell out, my fingernails and toenails turned black, I had painful mouth sores, and my white blood cell count went dangerously low. When I ended chemo treatments, I developed chemo-induced neuropathy in my hands and feet, which is one of the many side effects to certain types of chemotherapy drugs. I'm still suffering from it and learning to live with this condition. And after the chemotherapy treatments, I had to have radiation. After I completed this -- my -- I had six weeks of radiation every day, except for Sun -- Saturday and Sundays for six weeks. And then COVID hit, and that added another layer of stress to the situation that I already had.

But, you know, I had an amazing team of doctors and nurses who took good care of me and helped me through the most challenging time of my life. I'm still on medication for the treatment of my type of breast cancer and its side effects that are affecting the quality of my life. It causes brittle bones and joint pains, so I have to take care of not to injure myself in the -- in my, my normal day-to-day routine. I will be on this medication for five years. I do believe the cancer was caused by being exposed to toxic substances when I was employed at the plant. Thank you.

CHAIR ANDERSON: Thank you very much. Appreciate you taking the time to come out and share with us.

Okay, next is Wallace Elliot.

MR. ELLIOTT: Good evening to the advisory board and to my GE associates. My name is Wallace Elliot. I worked at the plant from November 1972 to around November of 1994. I'd like to just to give you a brief summary of some of the places I worked. And I think by giving this summary, you'll know that I was exposed and many others to very toxic substances and radiation during my tenure there.

When I started in 1972, I started as a janitor. And in 1972, if you can remember the Arab oil embargo was imminent. And at the plant we had a massive layoff around that time. And, therefore, those of us that worked in the janitorial department had to manufacture work in order to stay employed. And so, as a janitor, we were asked to go up in the loft of the entire building of 100 and -- and clean up all of the radioactive dust that were in the loft. And in this -- on the ceilings of all of the 100 building, especially the manufacturing building.

And so, we did that without any protective equipment, no masks, no gowns, or anything of that sort. And therefore, that happened for at least two years for us to maintain employment. So after that, I was moved or promoted to a couple of process operator jobs and inspection jobs and so forth. I did -- I worked in the ceramic machine shop for a couple of years, and I know that I was exposed to a lot of ceramic dust coming off of the pellets and so forth that we made. There were exposure to many types of chemicals, such as trichloroethylene, and there were alcohol and ammonia associated with those -- those tasks. And I do believe that my exposure there caused some of my current problems of today.

Also, after working there for a while, I was promoted to the RTG area. And as you already know, that was one of our areas that contained the plutonium. And my job there was to open the cans that contain the cans that contains the pellets of the isotope. And this went on for about 10 years. And I worked in that area and I'm sure that I was exposed to much radiation coming off of those pellets. And my job was to open those cans and put it all in the glove box of an argon atmosphere and to assemble the RTG battery for the RTG unit.

After leaving that post, I went to building 100 again. And there in building 100, as all of my associates know, that in area aid, there were these tritium beds and I worked in there for about two or three years, and I know I was exposed to much of that. There were protective equipment, but I don't think that it provided the protection that we needed.

And as a result of all of that, since I left GE, I have been diagnosed with beryllium disease. I've been diagnosed with heart problems. I've been diagnosed with ulcers, skin ulcers. There are various other ailments that I've had, diabetes. And I do believe that it is a result of the much exposure that I had working at GE.

So, I'm appealing to all of you that you will take into consideration all that had been said here. And certainly, I do believe that all of us at GE and those families that have suffered should be compensated to some degree for -- for their work and exposure to those unprotected areas and that unprotected environment. Thank you.

CHAIR ANDERSON: Thank you. We've -- we've heard this afternoon/evening a number of you mentioned the issue of beryllium disease

and asbestosis. You need to know that this program that -- that we're overseeing is for the radiation issues. I think I see Donna shaking her head and so I would say speak to her, because another part of the program provides compensation for those particular nonradiation diseases. So, if you have those, hopefully, you can get directed so that you get -- file the paperwork and the medical work in order to participate in that part of the program. But thank you for coming and sharing today with us.

The last person that signed up here, and then we have one that sent in a written statement is Donna Hand

MS. HAND: Thank you very much. I've already passed out a --

CHAIR ANDERSON: Yes, (indiscernible).

MS. HAND: -- okay. So we'll make it kind of, make it real quick. Okay. The board has statutory duties, and these statutory duties include to make sure that they're scientifically valid and the quality of the dose estimation and the reconstruction efforts, that's a statutory duty that the board has. The board also has the -- to -- that the facility -- the people who are likely were exposed, just likely exposed to radiation and a facility that is not feasible to estimate sufficient accuracy the radiation dose they received, the board shall be based on exposure assessments -- just based -- based on the statutory duty, the advisory board must be assured that the data from the Pinellas Plant is sufficient and accurate addressing the maximum dose received at the facility. The advisory board must be assured that the guidelines and the methods that are in the regulations and -- are followed. The (indiscernible) used the default values, but the default values do not satisfy sufficiently accurate. According to CFR 83.9 (c) (2), (3), and (4), it

requires a -- expert testimony or a government agency report.

[identifying information redacted], a professor of physics from the University of Notre Dame is internationally -- don't -- known, wrote a report and a letter stating that the tritium is specifically the middle tritides dose in the Pinellas Plant cannot be reconstructed in his -- working with his (indiscernible) and his studies, you cannot do the middle tritide dose. You cannot go back and do it because there's no data. The SC&A continues upward reports on the metal tritide issue. They renamed three of the five. Pinellas Plant had five different metal tritides. One of those is classified -- even still classified today.

I quote: There is no internal documentation indicating that there were adequate means of detecting exposures or monitoring. No guidance is provided. The practice of destructive testing of neutron generators and the methodology of performing the testing make it impossible to exposure -- make it possible that the workers were exposed to the metal tritides.

Then when you go back to the data on summary reports, in some of the meetings, DCAS says oh, yeah, we've got the reports, we've got the data. SC&A said well, show it to us. They looked at it. Monthly reports. 1962, 12 total; one complete, 9,943 smears taken, zero reported. There was about 15 years none reported at all. So again, the data is not accurate. The data is not sufficient. So yeah, you can use default values, but the data quality is not there.

Even Oak Ridge in their TKBS296 listed radionuclides that was in the work -- workplace radiation fields. They also listed radiation generating devices. The radiation generation devices have never been calculated to any

of these workers, even welders. X-rays, where they look and see if the welding was done, none of it has been attributed to...

The RTGs -- according to DCAS, RTGs was encapsulated so they never got any radiation. All the dose reconstructions that I've seen, zero radiation. When I got the work records from a claimant, he had a plutonium bioassay in there because he was exposed to plutonium. When I did research right here, it says, in OCAS's own technical basis document RTG neutron dose 340 millirem, but yet, there's no doses there. You didn't give my guy any doses in the RTG, then how come they got 20 or 40 millirem in data? That doesn't make sense.

The Pinellas Plant baseline environmental report, that's 1997 baseline report, which comes from DOE itself. That's the closeout report and it lists every single area and the chemicals and the processes in that area. Tritium was found all over the place. Uranium was found all over the place and other radionuclides. It also listed 28 radionuclides that were known to be at Pinellas. Five of them were over the curie limit. They were not addressed. This is actual data from DOE. So (indiscernible).

You also have (indiscernible) badges. Well, in 1997, the missed dose was 240 millirems, or, you know -- it's in here. I'll give you exhibits -- but yet Peter Darnell (ph) in 2016 says, we don't have anything on DND, period, so we -- we're not going to give him anything but 100 millirem. Wait a minute, you've got actual data showing, you know, actual measurements, but you're only going to give them 100 because you don't have any records? You went to S&L (ph) and there was no records there and you're not going to spend any more time? We just found out you've gotten the records. Do

we have to wait and make sure that you don't have any more time on that too? That's not efficient, that's not consistent and that's not timely.

The internal procedure says that the director of DCAS can go ahead and say we're not going to wait any more time. We're gonna go ahead and get the SC -- SEC petition, and then if we find that documentation, we'll just work -- reverse the process. But we're not even given that chance. In 2016, the general counsel for this board informed you, you tell NIOSH that they can do the dose reconstruction or not; they don't tell you. I also want to inform you that in 1991 DOE stated that the Pinellas --

(Whereupon, audio to the meeting room was lost; whereupon, a break was taken from approximately 6:02 p.m. until approximately 6:19 p.m. while attempting to restore audio.)

DR. ROBERTS: Okay --

(Whereupon, multiple speakers began speaking simultaneously, none of whom were discernible.)

DR. ROBERTS: -- if you're on Zoom and you can hear me, if you could just let me know, please. Okay --

(Whereupon, multiple speakers began speaking simultaneously, none of whom were discernible.)

DR. ROBERTS: -- few more minutes to go. Sorry for the delay. The audio briefly went out on Zoom, and we have to ensure that the court reporter can hear everything, as well as everybody who's participating virtually. So I believe that there was someone who wanted to comment. So now that we have the audio back if we could have you step up.

UNIDENTIFIED SPEAKER: Thank you so much. I just -- I just had

one thing I wanted to clarify. When I was -- when I was --

DR. ROBERTS: I'm sorry, if you could, state your name again, please.

MR. DARLING (PH): Eurell (ph) Darling. I worked at the plant. When I was at the plant, when we tested positive in -- in tube exhausts, they will send us down -- [identifying information redacted], and he would go over the exams with us and tell us you've been exposed. And most of the time they would do this on a Friday. And they will say you've been exposed, you need to go home, drink as much as beer you can, and then come back on Monday. I just wanted to make sure that was on the record because that was said to a majority of us, go home and drink as much beer as you can, come back on Monday.

I'm a Christian. I've always been a Christian. I've always been an athlete. I've never drank, I never smoked, never did drugs. But that's what they would tell us, go home and drink as much beer as you can, and come back on Monday. And then you'd go back to work.

DR. ROBERTS: Thank you.

Is there anyone else who would like to make a comment either on Zoom, on the telephone, or also in the room?

DR. ROBERTS: Okay. Hearing none, there was a public comment that was submitted to me and I was -- it -- the person requested that I read it into the record. So if you would bear with me, I will go ahead and do that. The public comment was submitted by Daniel W. McKill (ph), Jr., M.D. The public comment is dated today. Dr. McKill was unable to be here to make the comment himself, but I will start.

(Reading): Dear Dr. Roberts and advisory board members, I am

Daniel McKill, Jr., M.D., a retired M.D. faculty physician and the longtime Dow Madison, Illinois site SEC 057 co-petitioner. In 2005 I cofounded the Southern Illinois -- Illinois Nuclear Energy Workers, or SINEW, organization. For many years my colleague and ANWAG leader Terrie Barrie and I brought major amounts of new information about the uses at Rocky Flats facility, RFP from now on, in Colorado of magnesium thorium, or Mag-Thor HK31 metal alloy, that was manufactured at Dow Madison Plant and shipped in truckload quantities to RFP.

Dow Chemical owned the Dow Madison Plant and was lead contractor at RFP from 1951 to 1975. The two Dow facilities in Illinois and Colorado were staffed therefore, by Dow Chemical employees. In 2011 we submitted to NIOSH in this board affidavits from 14 Dow Illinois workers as part of the 83.14 Dow SEC-57. The affiants provided sworn notarized information that Mag-Thor HK31 was shipped from the Madison, Illinois Plant to RFP in Colorado. They also attested that Mag-Thor scrapes from RFP Colorado were returned and remelted at Dow Madison. The advisory board and SEC issues and RFP work groups, SC&A and ORAUT discussed these Dow Illinois affidavits at length. However, the RFP work group considered the use of Mag-Thor HK31 at RFP in Colorado was not proven or sufficiently substantiated and considered.

Most of these early 2007 to 2017 points were covered in Dr. Kotelchuck's RFP work slide presentation at this meeting -- at this meeting earlier today. In January 2008 Glenn Podonsky of the Department of Energy HHS division declared Dow Madison in Illinois to be a thorium -- thorium AWE, or Atomic Worker Employee, site from 1957 to '60, the years covered

by SEC-00057.

The stipulation stemmed from review of classified atomic weapons drawings held at the LLNL Laboratory. The Podonsky letter stated that Mag-Thor HK31 was used up until 1969. However, DOE was unable to prove the Dow Madison, Illinois Plant was the exclusive source of this particular HK31 alloy metal.

Beginning in 1970 -- sorry; beginning in 2017 ANWAG-SINEW led by Terrie Barrie and Dan McKill (ph), M.D., assembled and gave to the board and RFP work group a truly massive amount of new information about the presence and specific uses of Mag-Thor HK31 at Rocky Flats DOE facility located at Golden, Colorado that is directly relevant to SEC-192.

I would note this new petitioner information was not even mentioned in today's RFP work group's slide show. I checked at ten o'clock p.m. December 7, 2022, and noted that neither the minutes nor the transcript of the ten -- October 4, 2022, Rocky plants work -- Flats work group had been posted on the cdc.gov website. I regard this 60-day delay to be both concerning and nontransparent. The claimants and RFP and Dow-Illinois SEC workers need to know what actions the board, NIOSH, DOL, and their subcontractors have taken regarding the truly new information on RFP Mag-Thor I am bringing again to your attention.

Mrs. Barrie and I, as Dow Illinois and RFP site SEC co-petitioners, have conveyed to the board and RFP work groups a very substantial, overwhelming evidence that Mag-Thor HK31 was used at RFP and in what specific ways it was used. Fourteen of these men were identified by name except for one who reported anonymously to Mrs. Barrie through a third

party. The lead interview that yielded these names was a February 11, 2017, recorded conference call by Dr. McKill, Terrie Barrie, and a third claimant representative. We invited the implementing agencies and their subcontractors to interview all of these knowledgeable 15-named Rocky Flats based workers.

The board and RFP work groups have -- have all of these RFP worker names. We are aware that perhaps three or four secure unpublished interviews of several RFP workers by ORAUT/SC&A who were asked about RFP Mag-Thor use. These persons' names are unknown to the RFP and Dow Illinois SEC co-petitioners. The experience of ANWAG and SINEW was obviously quite different as we identified 15 RFP workers who witnessed RFP presence, storage, and uses as specific machine parts of R -- HK31 from Dow Madison site -- sister site.

The 11 main new findings about -- about RFP Mag-Thor in the TEA 5.24 -- 5.2.4 online encyclopedia are attached as page four of this email. I'm asking the DFO to please read pages one through three of my remarks into the ABRWH meeting 149 public comment record on December 8, 2022. I also ask that all board members, NIOSH, DOL, SC&A, and ORAUT get copies of pages one through four from the DFO. My main reason for addressing the board today is to ask why the abundant new RFP Mag-Thor information since 2017, all of which was forwarded to the full board, NIOSH, and SC&A has not been addressed. Why has the RFP work group refused to consider facts we believe prove beyond a matter of -- of doubt that large quantities of Dow Illinois Mag-Thor HK31 was used at RFP. Historical RFP and LLNL classified documents suggest Dow HK31 used possibly in nuclear

weapons parts made at RFP Colorado, such as pits. The TEA, or Thorium Energy Alliance, online encyclopedia October 7, 2022, download section 5.2.4, magnesium thorium allies on pages -- alloys on pages one through three shows that HK31 was used to -- machine brackets and hardware to attach shielding to Union Carbide ATM X series 50 and 600 (indiscernible) railcars and semi-trucks and that carriage plates were specifically reinforced with Mag-Thor in the building for 440 mod. center. The bibliography for this section references a technical paper coauthored by T. Barrie and D.W. McKill (ph), and there's a citation of the PDF.

SINEW corresponded twice with the TEA encyclopedia editor to attempt to learn the original sources of the new highly specific Dow Mag-Thor uses. This effort was not successful and still needs to be pursued. To be truly claimant favorable, this important new 2017 and later RFP and Dow Illinois Mag-Thor information must be vigorously pursued by all the agencies and ABRWH entities and work groups which indicated they would do so. Thank you.

And that ends that comment. Okay. And I -- I'm asking one additional time, per final comment, before we adjourn.

Okay. Well, seeing none, Dr. Anderson, unfortunately, had to leave a little early so that he could catch his plane. Do you want to make a motion to adjourn?

UNIDENTIFIED SPEAKER: So, moved.

MEMBER BEACH: I'll second it.

DR. ROBERTS: Okay. Any objections?

UNIDENTIFIED SPEAKER: No.

DR. ROBERTS: All right. Thank you so much.

(Whereupon, the meeting was adjourned at 6:29 p.m. EST.)