CENTERS FOR DISEASE CONTROL AND PREVENTION

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

ADVISORY BOARD ON RADIATION AND WORKER HEALTH

MEETING #161

Thursday, December 5, 2024

The meeting convened at 10:00 A.M. EST

via videoconference,

Dr. Henry Anderson, Chair, presiding.

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Members Present:

Anderson, Henry, Chair

Beach, Josie, Member

Clawson, Brad, Member

Frank, Arthur, Member

Lockey, James, Member

Martinez, Nicole, Member

Pompa, David, Member

Valerio, Loretta, Member

Ziemer, Paul, Member

Registered and/or Public Comment Participants:

Roberts, Rashaun, DFO

Adams, Nancy, HHS contractor

Barton, Bob, SC&A

Behling, Kathy, SC&A

Buchanan, Ron, SC&A

Burgos, Zaida

Burns (ph), Bob, ORAU

Cain, Emily, DOL

Calhoun, Grady, DCAS

Cardarelli, John, NIOSH

Carroll, Stephanie, Public/Authorized Representative

DeGarmo, Denise, Petitioner Representative

Elliott, Michael, Petitioner Representative

Registered and/or Public Comment Participants:

Fitzgerald, Joe, SC&A

Gogliotti, Rose, SC&A

Hawkinson, John

Holzberger, Malia, HHS

Kelleher-Griego, Regina, DOE

Mangel, Amy, SC&A

Marion-Moss, Lori, SC&A

Nelson, Charles, NIOSH

O'Connor, Kathleen

Ostrow, Stephen, SC&A

Rolfes, Mark, NIOSH

Ryan, Judith

Silver, Ken

Taulbee, Tim, DCAS

Ulsh, Brant, NIOSH

Vlieger, Faye

Carolyn Walker, Public

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PROCEEDINGS

(10:00 A.M. EDT)

WELCOME AND ROLL CALL

DR. ROBERTS: So, it's time to go ahead and open the meeting. I'm Rashaun Roberts. I'm the designated federal officer, DFO, for the Advisory Board on Radiation and Worker Health, and I'd like to welcome you to Meeting 161. As most of you know -- may know, all of the materials for the meeting today, including the agenda, presentations, and other documents are posted on the NIOSH website under the schedule for our public meetings, and you can go to calendar year 2024 and click on the tab for December to find them.

If you are participating by telephone, you can go to the website to access all of the materials, and you can follow along with the presentations. These materials were provided to the Board Members and to staff prior to this meeting. Excuse me.

This meeting is being conducted by telephone and by Zoom. On the website there is a Zoom link which does enable you to hear and watch the presentations through Zoom. If you have chosen to receive audio through Zoom, you should be able to speak to the group and hear the presentations. If you're not speaking, please be sure to select and stay on mute by muting the microphone on your screen.

Also, if you're a Board Member or staff member on Zoom, please make sure that your name is showing rather than your user ID or some other label so that you can be identified. Also, please identify yourself before speaking

if you're off camera. If you've dialed in by telephone today, you'll be only able to speak and hear the presentation through the telephone line. So, please make sure your phone stays muted unless, of course, you need to speak. If you don't have a mute button, press star 6 to mute. If you need to take yourself off mute, press star 6 again. Also, if you're only participating by telephone, we're unable, obviously, to see you, so please identify yourself before providing your comments or questions.

Before I move into roll call, I want to remind Board -- the Board and staff members that they should state any conflicts of interest you might have as you register your attendance. I note that there are presentations and discussions on the agenda day -- today for Savannah River Site and Lawrence Livermore National Lab. So, if a Board Member is conflicted for either of these sites, please make sure you make the conflict known during the roll call. And when the time comes, please recuse yourself from that discussion.

So, let's go ahead and move into roll call, and we'll start with the Board Members in alphabetical order. Anderson?

CHAIR ANDERSON: Present.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: Clawson.

MEMBER CLAWSON: I'm here.

DR. ROBERTS: Frank?

MEMBER FRANK: Here and conflicted at Pantex.

DR. ROBERTS: Oh, yeah. And if Anderson and Beach and Clawson

can, also, say the conflict --

MEMBER BEACH: Yeah. Sorry, I'm conflicted at Hanford. This is Josie.

CHAIR ANDERSON: I have no conflicts.

DR. ROBERTS: Okay.

MEMBER CLAWSON: Well, that's a matter of opinion, but anyway, I'm -- this is Clawson. I'm conflicted at INL.

DR. ROBERTS: Okay. Frank?

MEMBER FRANK: Here and conflicted at Pantex.

DR. ROBERTS: Lockey?

MEMBER LOCKEY: Here. Conflicted at Fernald, Portsmouth, and Y-12 and K-25, Oak Ridge.

DR. ROBERTS: Okay. Martinez?

MEMBER MARTINEZ: I'm here. I'm conflicted at Savannah River Site and Oak Ridge X-10.

DR. ROBERTS: Okay. Pompa? Valerio?

MEMBER VALERIO: I'm here, and I'm conflicted from all sites in New Mexico.

DR. ROBERTS: Okay. And Ziemer?

MEMBER ZIEMER: I'm here, and I'm conflicted at Oak Ridge X-10.

DR. ROBERTS: Okay. Let's see, I just do want to note we do have a quorum. I've received notice in advance that Martinez will need to disconnect from the call from 12:15 to 3:30 Eastern and that Frank will need to leave at about 1:45 Eastern.

Okay. So, let's move on to roll call and conflict of interest for NIOSH,

DCAS, ORAU.

MR. CALHOUN: This is Grady Calhoun. I am conflicted at Fernald.

DR. TAULBEE: We couldn't hear you, Lori. This is Tim Taulbee. I'm conflicted at Mound.

DR. NELSON: This is Charles Nelson. I am conflicted at Fernald.

DR. ULSH: This is Brad Ulsh. I'm conflicted at Fernald and Argonne East.

DR. CARDARELLI: This is John Cardarelli. I'm conflicted at Fernald.

MR. ROLFES: Good morning. This is Mark Rolfes. I have no conflict of interest.

DR. ROBERTS: Anyone else, DCAS, ORAU? Hearing none, let's move on to SC&A.

MS. MARION-MOSS: Sorry, Rashaun. This is Lori Marion-Moss, and I'm conflicted at Mound.

DR. ROBERTS: Okay. Great, thank you. And let's move on to SC&A.

MR. BARTON: Bob Barton, no conflicts.

MS. BEHLING: Kathy Behling, no conflicts.

DR. BUCHANAN: Ron Buchanan. I'm conflicted at Los Alamos.

MR. FITZGERALD: Joe Fitzgerald, no conflicts.

MS. GOGLIOTTI: Rose Gogliotti, no conflicts

MS. MANGEL: Amy Mangel. Conflicted at Pacific Northwest National Lab.

DR. OSTROW: Steve Ostrow, no conflicts.

DR. ROBERTS: Anyone else for SC&A? Let's move on to HHS and contractors.

MS. ADAMS: Nancy Adams, NIOSH contractor. No conflict.

MS. HOLZBERGER: Malia Holzberger, HHS, no conflicts.

DR. ROBERTS: Any others from HHS or contractors? If not, let's move on to the departments, DOL, DOE, other departments.

MS. CAIN: Good morning. This is Emily from Department of Labor -- Emily Cain, no conflicts.

MS. GRIEGO-KELLEHER: Good morning. This is Regina Griego from Department of Energy, and I don't have any conflicts.

DR. ROBERTS: Great. Any other folks from departments? Okay. Hearing none, I'd like to see if there are any members of the public who would like to register their attendance now.

DR. DEGARMO: Good morning. This is Denise DeGarmo. I'm the authorized petition representative from Pinellas Plant, Petition 00256.

DR. ROBERTS: Good morning and welcome. And --

MR. ELLIOTT: Good morning. Good morning, this is Mike Elliott I'm a copetitioner for the M and C Special Exposure Cohort Petition, and I'm here primarily to hear the presentation by Department of Labor, Emily Cain, on when DOL will start processing claims under the newly designated SEC class. Thank you.

DR. ROBERTS: Thank you. Welcome. Any other members of the public who would like to register attendance? Okay. Well, thank you, everybody. And again, if you're participating by phone, please check your phone periodically and make sure you're on mute. If you don't have that mute button, press star 6 to mute. To take yourself off, press star 6 again.

I do want to remind everyone that there is a public comment period

scheduled for today, which will begin at 5:00 p.m. Eastern. So, if there are members of the public who plan to comment, please make sure that you're present right at 5:00 p.m. because the comment period will close after the final comment, which may be before 6:00 p.m.

Now, before I turn the floor over to Dr. Henry Anderson, our Board Chair, I did want to address a few comments to the Board, SC&A, DCAS/ORAU. Over the years, I've had the privileges of serving as DFO for the Board, and I really have marveled at how, in general, everyone has respected and productively handled the differences in perspectives that have arisen in many full Board, work group, and subcommittee meetings. However, on occasion, passion for one's perspective or position has compromised the quality of interaction and communication during meetings, and unfortunately, people have walked away from these encounters feeling that they or their input weren't valued by others in the course of presentation and discussion. Obviously, this is not okay.

So, before we proceed with this meeting and meetings in the future, I would just like to remind each person to be mindful of and sensitive to how you present and communicate information or your viewpoints to others, including considering how the words and tones that you might use could land and impact others. Everyone here understands the significance of this program and its importance to so many people, and I'm certain that everyone wants to do their part to prevent interactions and communications that don't meet the standards that everyone expects from undermining the important work that everyone is here to do.

Many past meetings have gone very well, even with differing opinion,

which illustrates that everyone has the capacity to communicate well and to disagree without being disagreeable. So, I do ask that everyone continue to practice effective communication skills, even when things get frustrating. So, let's wipe the slate clean, and I ask for everyone's cooperation on this in today's meeting and all future meetings. Thank you for indulging me on this topic, and now I will turn it over to Andy.

CHAIR ANDERSON: Thanks a lot. I want to welcome everybody, and I especially want to welcome the three Members who really are not new, but due to external forces and activities, were only allowed to participate by listening for a while, but that little glitch has been resolved. So, I want to welcome Dr. Frank, Mr. Pompa, and Dr. Martinez to their full participation on the Board and look forward to having them be able to speak and interact with us all. And now we have, basically, the full Board on board and able to fully participate, so I'm looking forward to maintaining a robust and productive set of interactions. And as Rashaun said, we all are experienced and have opinions, and I want to be sure everybody has an opportunity to speak.

The difficulty is when we're on Zoom calls like this, for me anyway, I can't necessarily tell whose hand is up or who has not been able to speak. So, I just want to be sure everybody knows that we're really looking forward to your participation and comments and put your hand up or just break in if you want to say something.

So, with that, again, notice -- you'll notice for me, we're sort of early morning. And for once in a long time I got sun coming in my window, so my -- my picture, you'll see kind of whited out on part of it.

So, let's start out now with Grady Calhoun is going to give a NIOSH program update. I see you put up your share screen already, Grady, so let's go ahead actually**.**

NIOSH PROGRAM UPDATE

MS. MARION-MOSS: Hi, Andy, --

MR. CALHOUN: Yeah, actually, I'm going to be just the slide controller, and Lori Marion-Moss, who will be taking over for me in January, is going to do this presentation today. So, let me know if this looks okay to you.

MS. MARION-MOSS: Can you make that bigger, Grady?

CHAIR ANDERSON: Can you make that bigger?

MR. CALHOUN: Does that look okay?

CHAIR ANDERSON: Could you do a full screen?

MR. CALHOUN: Okay. Let's see what I'm doing here. I don't want to do that one. Let me go back. Ch-ch-ch-chew. From the beginning, that's what I wanted to do.

DR. TAULBEE: I think if you just hit presentation mode down at the bottom, Grady, that should do it.

MR. CALHOUN: Presentation mode down at the bottom.

DR. TAULBEE: Next to the scaling bar for Zoom.

MR. CALHOUN: Oh, slideshow?

DR. TAULBEE: Yes.

MR. CALHOUN: I -- I can't see that that did anything. Did it do anything?

CHAIR ANDERSON: No.

DR. TAULBEE: No.

MS. MARION-MOSS: No.

MR. CALHOUN: Ugh. I used to --

MEMBER CLAWSON: By the way, congratulations, Lori.

MS. MARION-MOSS: Thank you, Brad.

MS. GOGLIOTTI: Grady, -- Grady, I think you can -– oh, there it goes.

MR. CALHOUN: Does that look okay?

MS. MARION-MOSS: Not to me.

MR. CALHOUN: Not to you, hmm.

CHAIR ANDERSON: Well, --

MR. NELSON: Can you do view full screen?

MR. CALHOUN: View slideshow normal. I still get the ones on the bottom.

CHAIR ANDERSON: Did you go across the top bar and do slideshow there?

MR. CALHOUN: Slideshow, --

CHAIR ANDERSON: And now start from beginning.

MR. CALHOUN: From the beginning, but then you still get the side, don't you?

CHAIR ANDERSON: Yeah, I don't know. I don't know what's -- well, that's good enough.

MR. CALHOUN: All right. Sorry about that. I guess, we'll just go with this for now then.

CHAIR ANDERSON: Yeah. That's okay. Thanks. Go ahead, Lori.

MS. MARION-MOSS: Well, good morning, everyone. My name is Lori Marion-Moss, and I am the director understudy for the division of compensation analysis and support. And today I will be presenting the NIOSH program update for Grady Calhoun.

Next.

Let's get started with contracts and staffing. As some of you may be aware, our current director, Mr. Grady Calhoun, will be retiring early next year. Grady has a set retirement date of January the 31st, 2025. Shortly after that date, I will officially assume the -- the role of DCAS director on February the 1st, 2025. Dr. Brant Ulsh has accepted the DCAS associate director for science understudy position that is currently held by Dr. Tim Taulbee. Again, as some of you may be aware, Dr. Taulbee is slated to retire in March of 2025, and he has a set retirement date of March 26, 2025.

Whereas, Dr. Ulsh will assume that position as DCAS associate director for science on March 29, 2025.

We have a recent staffing change. Mr. Charles Nelson has accepted the position of health physics supervisor. That position was formerly held by Mr. LaVon Rutherford who is now our current DCAS deputy director. Continuing on with staffing, we still need to recruit for and fill our team leader positions that have been vacated with our staffing changes. One of them being the special disclosure cohort team leader position, which was previously held by Charles Nelson. And the dose reconstruction team leader position, which I formerly held. So, we need to recruit for those two.

On the contract front, we have -- a one-year bridge contract for dose reconstruction has been finalized, and we're currently working on and

planning for the next dose reconstruction contract rebid.

Next.

Our IT update: We continue to process cases manually. We have achieved steady state processing of dose reconstructions, which, basically, means we continue to achieve our goal of having more than 90 percent of all dose reconstructions completed within five months of receiving the last data required for the completion. In terms of our IT applications, the site research database, the SRDB, and the board review system, the BRS, have been restored in ORAU's cloud environment. DCAS, SC&A, and some Board Members are connecting to this environment through CyberArk. The SEC viewer is next on the list. And last but not least is NOCTS. NOCTS is last because it's quite a bit more complicated.

Next.

Workshops, town halls, and outreach: NIOSH has completed several outreach events. In September of 2024, one of those include an outreach event in Cincinnati, as well as Gallup, Grants, and Albuquerque, New Mexico.

Our JOTG events tentatively scheduled for 2025 include Idaho National Lab in Idaho Falls, Idaho on April the 23rd, 2025; Brookhaven National Lab in Long Island, New York on June the 10th, 2025; Los Alamos National Lab in Espanola, New Mexico on July 24, 2025; Weldon Spring Plant and Mallinckrodt Chemical Company in northwestern Missouri on September the 10th, 2025.

Next.

Ages of cases since the pause as of November the 22nd, 2024: This -- this graph shows us what's been going on since the pause occurred back in

May of 2021. As we approach our fourth year, there was a big increase in cases because we couldn't process them. We're working to regain our efficiencies while processing these claims manually, basically, getting back to where we were when NOCTS system was available to us. We're still processing cases close to the rate when NOCTS was available to us.

Record requests to the Department of Energy as of November the 22nd of this year, we have 254 total outstanding record requests, 33 of those requests range between 61 and 120 days old. And they have approximately four between 121 and 180 -- 180 days old.

Next.

Case status report: NIOSH has received 58,565 cases from the Department of Labor. 50,685 of those cases were returned to DOL with dose reconstructions; 975 of those cases were administratively closed; 3,682 were pulled by DOL for special -- special exposure cohort; and 1,950 were pulled from dose reconstruction by DOL, leaving 1,273 cases at NIOSH for dose reconstruction.

Probability of causation summary: 50,685 dose reconstructions were sent for final adjudication; 37,426 of those cases had a POC less than 50 percent, which is 74 percent of the total. 13,259 had a POC greater than 50, which is the total of a -- total percentage of 26 percent of the total. These percentages have remained relatively consistent over time.

As I previously mentioned our active cases, the 1,273 that are at NIOSH for dose reconstruction, of those, 428 are in the dose reconstruction process; 214 are -- are draft dose reconstruction reports that have been sent to claimants; and 631 of those cases are being prepared for dose

reconstruction.

And that's all I have. Are there any questions?

CHAIR ANDERSON: Yeah. I -- I have a couple. When does your bridge contract for dose reconstruction end? I mean, I'm --

MR. CALHOUN: I can --

CHAIR ANDERSON: -- I'm concerned --

MR. CALHOUN: I can answer that one. This -- this is Grady Calhoun. It ends the end of September.

CHAIR ANDERSON: September, okay.

MR. CALHOUN: Yeah.

CHAIR ANDERSON: I'm just concerned -- I mean, that's really the driver of the program here. And given the changeover with administration and it's -- like, the changing right now of all of the different staffing positions at NIOSH, I want to be sure that the new contract is going to be able to move along smoothly. We won't be left with a blank period of losing one in September and not having another one ready to go. So, I hope you've got a contingency plan for if the longer-term contract -- when do you expect to have that proposal out for bids?

MR. CALHOUN: Yeah. We actually have gone through -- we're in the process. We've done our market research. We've put that out. We've got responses back. We are in the process of what we call the acquisition strategy, and that's getting very close to -- to being completed. And then there's an acquisition plan. It's all very complicated, but I think we're in really good shape to get this out to hit the street.

Now, in the, what I believe, is an unlikely event that we can't get a --

a contract bid in and awarded before the end of this current bridge, there is, in fact, a six-year -- or stop, sorry -- I wish it was six year -- a six-month extension that we could apply to the current bridge, if needed. I don't believe we'll need that though.

CHAIR ANDERSON: Great. I just wanted to be -- I knew you had something in place, but I wanted to be sure we're -- we're keeping an eye on that. I mean, the rest of staffing and things like that, we have opportunity to fill in here and there with various activities.

And then the other is, is the CyberArk. Is that going to be a permanent part of this or -- for the cyber security thing for Members, or is that going to be one that there will be a change?

MS. MARION-MOSS: For now, it's permanent, Dr. Anderson. We're looking into other alternatives, so we are considering that. We're --

CHAIR ANDERSON: Okay.

MS. MARION-MOSS: -- for how it is permanent.

CHAIR ANDERSON: Any other questions people have?

MR. CALHOUN: I just --

MEMBER CLAWSON: Yeah, Henry. This is -- this is Brad. I just had a question for Lori on this. You were saying that you had requests out to DOE.

Are these -- are these just individual cases that we've got going to them, or is this, like, our site research that we're trying to do?

MS. MARION-MOSS: Brad, I do believe those are individual.

MEMBER CLAWSON: Okay. So, we'll talk on the other ones when they come up with DOE. The other question I had, you had everybody put in there, but you changed LaVon. What is LaVon's new position?

MS. MARION-MOSS: He is our DCAS deputy director now.

MEMBER CLAWSON: Okay. I just wondered because you said -- you said these things changed, and LaVon went from here, and I didn't see where he went. I just wanted to make sure. You know, this is -- this is one thing I would like, you know, as we do make these changes, especially for Board Members and people, if you could, run through Rashaun or whatever -- as these changes are made, and stuff like that, if you could, kind of let the Board know who's over what so that we -- so that we contact the right people on it, I would appreciate that.

We usually have a -- kind of a little phone chart so that if we have any questions, we can call them. And I have most of people's numbers, but I don't know if they change sometimes. So, when we get there I'd appreciate that, Lori.

MS. MARION-MOSS: Sure will. Thanks.

MEMBER ZIEMER: Lori, I have a question. Paul Ziemer here. Going forward on the town halls and the outreach, who will be doing that next -- in 2025?

MS. MARION-MOSS: Who will be doing that in --

MEMBER ZIEMER: Yeah.

MS. MARION-MOSS: -- DCAS personnel?

MEMBER ZIEMER: Uh-huh.

MS. MARION-MOSS: Right now we don't have those individuals allocated at this point. Again, this is a tentative schedule, but as soon as we find out, I can get that information to you. Can't hear you, Dr. Ziemer.

MEMBER BEACH: Paul, you muted -- Paul, you muted yourself.

MEMBER ZIEMER: Maybe -- maybe you can just include that with the information that Brad was asking about, who -- who handles those kinds of -- yeah, thank you.

MS. MARION-MOSS: Uh-huh.

CHAIR ANDERSON: Other questions?

MEMBER BEACH: Yeah, I -- can I tag along on what Paul just asked? I was going to ask -- your workshops are not the same dates as when I was reviewing the DOL. Do you guys do those in conjunction, or is this strictly a NIOSH outreach, workshops?

MS. MARION-MOSS: Mr. Calhoun?

MR. CALHOUN: This is Grady. This is Grady. And -- and I got those -- those dates for the upcoming ones from DOL, and they're tentatively scheduled. It's the joint outreach task group is -- that we meet periodically and decide on where we need to go or we'd like to go. So, it's -- some of the --

MEMBER BEACH: Oh, yeah, yep.

MR. CALHOUN: -- some of the meetings are not attended by NIOSH. Some of them are strictly a DOL meeting. If it's just something to go over, for example, medical benefits, we don't participate in those.

MEMBER BEACH: Okay. I was curious. And I do see some of those dates are the same. Thank you.

CHAIR ANDERSON: Other questions? Okay. Well, thank you, Lori. And welcome all of the new staff at NIOSH and those who are in their trainee standpoint. We look forward to everybody getting up to speed along with the Board, the new Board Members.

So, I think we're ready to go ahead. Okay. Next up is a report from DOL. Ms. Cain, are you giving that? There's been a change on some of the listing here. I hope I got the most current agenda here, so. Emily?

DEPARTMENT OF LABOR PROGRAM UPDATE

MS. CAIN: Good morning. Yes, I will be presenting, and I just want to do a double-check. Everyone can see my screen presentation and hear me okay?

CHAIR ANDERSON: We hear you, but no screen.

MS. CAIN: Okay. Let's see. Okay. How's that?

CHAIR ANDERSON: There we go.

MS. CAIN: Okay. Thank you for bearing with me there. Well, I'll go ahead and get started. Hello and good morning everyone. My name is Emily, and I'm from the Department of Labor's Division of Energy Employees Illness Compensation, which I'll be using the acronym for that long name, which is the D-E-E-O-I-C. And today I'll be providing our Department of Labor program updates, and I'll be covering some of our workload measures, program statistics, fiscal year 2024 payment data, outreach for 2025, and lastly, some of our program updates.

So, we'll begin by taking a look at fiscal year 2024 fourth quarter workload measures, which is the time frame of July 1st through September 30, 2024. And this table provides a breakdown of several of those workload measures, including our claims received for this time period, which is at 4,607, and the number of new claimants. And we continue to see a growth in the number of our claims received.

Consequential illnesses are those separately diagnosed medical conditions that either occurred or worsened because of an illness that's already been accepted. And then the bottom three figures are for our radiation cases, and the Department of Labor sends those to NIOSH for dose reconstruction and using that information for our probability of causation calculations. And that's something that Lori Marion-Moss touched on just prior to her presentation.

This next slide provides comprehensive program specifics for combined Part B and Part E. And as a reminder Part B covers our former or current workers whose illnesses were caused by radiation, beryllium, silica while working at a covered facility. And then Part E covers our Department of Energy employees whose exposure to toxic substances at covered facilities caused, contributed, or aggravated to their claimed illness or medical condition.

And then the compensation dollars, this number includes our wage loss impairment and Part B and E lump-sum payments to both employees and survivors. And then lastly, the medical bills paid is the total amount paid for employee medical care. And this information is posted on our webpage, and it's updated weekly on Mondays. So, it was last updated on 11/17, but it's updated weekly on Mondays.

On this slide we have our fiscal year 2024 payment data broken down by quarter. There's two slides for this one. And you'll see an abbreviation of RECA, R-E-C-A. This is the Radiation Exposure Compensation Act, which is managed by DOJ and provides payment to individuals who have contracted cancers or other diseases as a result of their radiation exposure. So,

claimants who receive payment and award from Department of Justice under RECA, they can also be eligible for compensation and benefits with Department of Energy employees occupational illness compensation. And this slide just continues on with the fiscal year 2024 payment data by quarter and covers the medical bills paid.

So, switching gears here from our numbers and figures to our outreach and DEEOIC is excited to provide a robust schedule for 2025, including various types of different outreach throughout the country. And so, please note that if there is any changes or cancellations, our website will be the best place to check for any changes or cancellations on our events and outreach page online. And I'll just quickly go over some of our event types, which has already been touched on a little bit.

But we also have our traveling resource center. This is usually held near covered facilities. And this provides services and information to stakeholders who might not be near one of the 11 resource centers. There's going to be resource center caseworkers and other DEEOIC staff members to answer questions and address any issues.

We also have our joint outreach task group, which has our partner agencies to give presentations on medical benefits, helpful tips, and claim filing assistance. Our energy outreach events are staffed by DEEOIC employees, including some of our claims examiners and some of our own medical benefits examiners. And these provide opportunities to talk directly to them, ask any questions, and you can receive case-specific updates or troubleshoot any issues.

And then lastly, we have our authorized representative, or AR,

workshops. These are usually our two-day events where we have DEEOIC staff, Department of Energy, NIOSH and give presentations and information on our programs and the roles in the program. The goal is to give our authorized representatives more in-depth understanding so that our claimants can best be assisted. And we do have a distribution list that you can sign up for on our webpage to receive the most up-to-date information directly to your email.

And this is just slide 2-of-2 of our outreach dates and events for 2025. And then in addition to our in-person, we also have webinars scheduled for 2025 just to continue our commitment to improving customer service and provide information on some of the services that we offer. I just looked earlier this week. It looks like our webpage hadn't quite been updated, yet for 2025 as we're still in 2024. So, this is sort of a little sneak peek of what you can expect for 2025, and I anticipate this information will be on our webpage soon.

These last two slides that I have, these cover our program updates, beginning with our average number of weekly new claims, which is at 231. Secondly, we have Form EE-1A for consequential illness benefits. This became available September 7, 2024. And we are now accepting claims using this new form. So far we have not had any reported issues.

And again, consequential illnesses are those separately diagnosed medical conditions that can occur or worsen because of an illness that's already been accepted. And the goal of this new form is to help claimants clearly indicate that the condition that they're claiming is related to a previously accepted condition.

We also have a new version of our procedure manual. This is procedure manual 9.0. This was released October 28, 2024, and it included some updated guidance and a few administrative changes. The latest version of this procedure manual is available on our webpage, as well as a transmittal that fully describes all the specific revisions and changes.

And then continuing on with our program updates, for this last slide we have four circulars and bulletins that I'll go over. So, we have circular No. 24-1. This was issued in August, and this advises that we will continue to authorize payments to providers without preauthorization for providers or physicians that utilize telemedicine to conduct routine medical care when that care is related to one or more accepted conditions. I do want to note that we continue to require in-person medical examinations when the purpose is for a letter of medical necessity, prescribing home and residential health care, or ancillary medical benefits.

Bulletin 24-3 was issued in September, and this updated our procedure manual, specifically, our chapter 30 on home and residential health care. And this increased the maximum allowable authorization for home health care from a direction of six months to 12 months. Thirdly on this slide is circular No. 25-1, which was issued on October 9th. And this added to the special exposure cohorts, a class of employees who worked at the Metals and Control Con -- excuse me -- Metals and Control Corporation in Attleboro, Massachusetts from January 1968 through September 1995 for a number of at least 250 workdays.

And the specifics of this circular -- well, this circular is available on our website. And we have created a list of potentially impacted claims. And a

list of those cases was distributed to our field office October 21st. And this includes and involves examining previously authorized -- excuse me -- previously denied claims. The number of potentially listed claims is approximately 245 cases. And there's ongoing efforts to re-adjudicate those cases and track -- tracking those claims is continuing.

And then lastly, we have circular No. 25-2, which was issued November 2024. And this issued new guidance regarding claims involving compounding medications. So, this is the practice of combining, mixing, or altering a medication or a drug to create a medication that's specifically tailored to the patient. And an example where you might see this happen is if a patient is allergic to one specific ingredient in a medication, and it needs to be altered for them. For these we require prior authorization for reimbursement for these compounding medications where a physician can -- can provide a compounding well-rationalized justification for the use of this medication.

And as we wrap up here, these are some of the program resources that are available. I mentioned a few times our webpage also hosts a lot of this information. We also have distribution lists to receive information directly to your email.

That concludes our program updates. Thank you very much for the opportunity to present, and I'd be happy to answer any questions.

CHAIR ANDERSON: Yeah, I have a few. Thank you very much. It's always very helpful to get the update and the summary information. I'm interested on your outreach. It would be helpful if you kind of gave us the numbers of people who participate on your -- in your various programs and

if you gather information on what brought them to the webinars or to an on-site thing.

Those programs are -- I think are very important to be able to do. So, I know many of the Board Members, if it's going to be occurring in their area, can help promote getting people to attend. I mean, it's -- you can do the best you can at getting the word out, but that's always one of the breakdowns is we get people coming in and say we didn't hear about that. And there's everything on your website, but the number of people who actually go there, you really have to back that up with your outreach activities. So, it'd be helpful if you could give us some of the numbers, and if there's anything we can do to help promote that, we'd be happy to do it.

Then the other thing I was interested in, if you could, give us a little bit of -- especially for me, maybe the others know more about it, but your traveling resource center. You mentioned there that you had an event with Speedring Inc. Is that a site, or is that a company?

MS. CAIN: Yes. So, first I will touch on our numbers and tracking. We do track that information, but unfortunately, I just don't have that information specifically at this time for numbers. I'd be happy --

CHAIR ANDERSON: That's okay.

MS. CAIN: -- to provide that and --

CHAIR ANDERSON: Yeah, I think that would be helpful going -- because we have a lot of people here interested in outreach. And if we can help, we'd be happy to do that.

MS. CAIN: Thank you. Yes. Yes. As you mentioned, you touched on just how important it is to spread the word of these outreach events and our

webinars so that more people can attend them and completely agree. So, we'd be happy to provide that information to you after this.

And Speedring, Inc is a site.

CHAIR ANDERSON: Okay. I didn't see that on our list, so I was -- thank you.

MR. VANCE: Hey, Dr. Anderson. This is John Vance with the Department of Labor. I'm the branch chief of policy. It is one of our sites. I don't know off the top of my head whether it's an atomic weapons site or not. I don't know whether Regina is listening in. Regina might have a little bit more background information on that, but it is one of our covered locations.

CHAIR ANDERSON: Okay. Thank you. Other questions people may have?

MEMBER BEACH: Yeah, Andy. This is Josie. I had similar questions to what you were asking about the outreach. So, the -- I'm cure -- most curious about the Pinellas Plant and Metals and Control on your slide six, the energy outreach event. And much like Andy, I was curious of how you spread the word that those sites or those events are happening, and what exactly is happening at those events. Is it just on your website, or do you do something in this -- in the towns themselves?

MR. VANCE: Hey, Josie. This is John Vance again.

MEMBER BEACH: Yeah.

MR. VANCE: You know, Emily -- Emily can't answer that because she's -- she is not one of our outreach folks, but --

MEMBER BEACH: Okay.

MR. VANCE: -- in my experience, we do issue a lot of different kinds of advertisements, and we utilize our resource centers and contacts in the -- a lot of contacts in the trade unions and other types of employee entities to get the word out on those outreach activities. I know that our outreach branch does advertising and other types of public media notifications. And the purpose of those meetings is to just get people aware of the program, understanding what our claim process is, what the benefits are, and any unique features of coverage at a particular site. So, let's say if we're talking about Pinellas or Hanford or whatever, some of the background information that we utilize in our case adjudication process, so people understand the steps we go through in adjudicating cases.

CHAIR ANDERSON: Thank you.

MEMBER BEACH: Okay. Yeah, thank you. Can I ask one more question, Andy? This is kind of a joint --

CHAIR ANDERSON: Sure.

MEMBER BEACH: -- this is kind of a NIOSH-DOL. So, Pinellas is one of the sites that we are actually actively working on. Is that something that can be combined with some interviews, or is that strictly just an outreach event? I think that was more for Grady.

MR. CALHOUN: Yeah, this is Grady. That's usually not how they're set up. I don't know how we would combine those. Typically, the outreach meetings, you know, there would have to be some coordination with people there to set up the meetings. I would --

MEMBER BEACH: Yeah, Grady, I --

MR. CALHOUN: -- it seems to me like it would be better off to do that

as kind of a separate trip.

MEMBER BEACH: Yeah, and I only -- Grady, I only ask that because in the past, I know that it has been set up that way. But I mean, that's many years ago that we combined that. So, I was just curious if there was anything looking at the same thing, so.

MR. CALHOUN: I think it would be best because you've got different people, too, doing it, --

MEMBER BEACH: Yeah.

MR. CALHOUN: -- too. I mean, we -- when we participate, labor and DOE, you know, just give presentations and talk about people filing claims and how the -- the program works. I think that if we did interviews, it would certainly be DCAS folks and Advisory Board folks to set up the interviews. It just seems to me that it might be best to do that separately.

MEMBER BEACH: Yeah, I -- I was just curious. Thank you.

CHAIR ANDERSON: I mean, the one thing there could be a recruitment kind of a thing rather than actually doing the interviews. If there are long-term workers there that are participating, and you get a sense of what their issues are, they may be good people to think about potentially recruiting to interview.

MEMBER ZIEMER: Andy, I have one more question for --

CHAIR ANDERSON: Go ahead, Paul.

MEMBER ZIEMER: -- Emily. This is Paul. Emily, I was interested in your list of webinars coming up next year. It looks very interesting. Who is the target audience for your webinars, if there is a specific target audience, and what's your experience on who actually has been participating in

webinars so far?

MR. VANCE: Hey, Paul. This is -- this is John again. For our outreach program, when we do these webinars, it's really designed to provide a little bit more of an intimate look at these topics that are covered. You know, when we do the webinars, they are usually invites that go out on our distribution email list for policies and procedures. We also have, like, a program email distribution list.

We put it up on our website, so it's really come one, come all. Anybody who's interested in any of these topics, you know, we definitely get different kinds of populations of people that are involved with different aspects of the program. So, if people are interested in medical billing, they're going to definitely show up at the medical benefits overview. We have people that have Part E cases, and they're interested in knowing the process for impairments, they'll come to that one. It really is dependent on what people are interested in.

And, you know, we get, I think on average, anywhere between 150 to 300 to 400 people participating. Our most -- our most heavily participated events are generally in the realm of medical benefits, medical benefit adjudication, home and residential health care, and those sorts of topics. But really it's anyone who's interested in any of these topics, and they do a pretty good job of getting notifications out. That's why we always encourage people to go to our website and keep an eye on updates and things that are coming along. These presentations are generally given by staff at the Department of Labor in areas of subject-matter expertise given the different topics that are covered.

MEMBER ZIEMER: Thank you.

CHAIR ANDERSON: Yeah. Just to -- just to follow up on that briefly, just to show you my ignorance of your website, do you have a notification function on there where if somebody goes to the site, they can sign up to be notified for things like this?

MR. VANCE: Yes. There is actually a link that -- I don't know where it -- where it is exactly, but if you dig around, there's a distribution email that goes out about program updates and outreach events. You can sign up on that. That distribution list is updated fairly frequently with regard to outreach events and also publications of any kind of updated procedures or guidance that's going out by the program.

So, for example, that Metals and Control SEC group, that was a notification that would have gone out just saying hey, this class has become effective, and the program has begun implementing and administering that class. So, we do provide those kind of updates via email. So, it is on our website. I don't know exactly where, but it is a -- it is a link that will link to the -- to the email. Once you submit your email, you'll become part of the distribution of any of those communications coming out of the Department of Labor.

CHAIR ANDERSON: I was pretty sure it would be there, but -- but again, that would be one of the things the -- you know, the community representatives may want to be sure and put that in their information to tell people to go and sign up. Because once you're there, it's easy to get a reminder about things coming up rather --

MR. VANCE: Yeah. I'm looking at -- I'm looking at the website right

now. It's actually predominantly featured in our latest program highlights.

There is a link. It just says sign up for program policy and program updates via email. So, it's on our main page. It's under the latest program highlights. It's the first link there.

And we do try to -- to encourage folks to sign up for that email at any of our outreach events. I know I make -- have a plug for it every time we do our other advisory board meetings. So, I would encourage folks to sign up for that if they're interested in getting updates about the program.

CHAIR ANDERSON: Yeah. Thanks. Any other questions?

MR. CALHOUN: Yeah. This is Grady Calhoun again. I just thought I'd let you know that the reason you haven't heard of Speedring is because that's a beryllium vendor, so there won't be any Part B EEOICPA claims coming out of there.

CHAIR ANDERSON: Okay. That's --

MR. VANCE: Yeah, I -- I -- I was sitting here thinking oh, I knew Speedring and then I was like, oh, man I couldn't remember off the top of my head. So, thank you, Grady.

CHAIR ANDERSON: Thank you. Yeah, I was curious. I thought I knew most of the names, but that was a new one. Oh, it's a beryllium one, okay. Thank you. Any other questions?

MEMBER POMPA: Andrew, this is David Pompa, Amarillo, Texas. You know, we have five home health care providers a Gibbons (ph) Group, the Cold War Patriots, and others. I think that that would be a recommendation to invite these groups, because they're helping out workers with their claims and so forth. But from what I've experienced, they're lacking in knowledge

of what -- how and what to do.

MR. VANCE: Yeah. Hey, David. This is John Vance again. We are really familiar with all of those stakeholder groups, and in most of the outreach events that they have some connection to, an activity or an event of some sort, they do send a lot of representatives. Now, how well they listen to the information being provided to them, I can't really speak to that. But we do work with all of those stakeholder groups. And oftentimes, those stakeholder groups that are like Cold War Patriots and others have a -- a -- a connection to a lot of medical providers. So, we do work with them. And I'm familiar with many of those organizations. And I do know in the outreach events that I do, there are oftentimes representatives from those organizations at the meetings that we do both publicly and online.

MEMBER POMPA: Okay. Thank you.

CHAIR ANDERSON: Any other questions, comments? Okay. Thanks a lot. And John, thanks for filling in a lot of the information. Are you going to be --

MR. VANCE: No problem.

CHAIR ANDERSON: Are you going to be presenting DOE, or is that --

MR. VANCE: Oh, no, I -- Regina is there, and she knows everything about DOE, and I know nothing, so.

CHAIR ANDERSON: Okay.

MR. VANCE: Right, Regina?

DEPARTMENT OF ENERGY PROGRAM UPDATE

MS. GRIEGO-KELLEHER: I -- yeah, sure, John. Okay.

CHAIR ANDERSON: There we go.

MS. GRIEGO-KELLEHER: No. I think -- can you see my screen? Let me see --

CHAIR ANDERSON: Yes. Yeah.

MS. GRIEGO-KELLEHER: -- if I can get this to blow up the way it should be. There you go. How's --

CHAIR ANDERSON: Yay.

MS. GRIEGO-KELLEHER: -- that?

CHAIR ANDERSON: Now -- now you need to tell everybody how you did that?

MS. GRIEGO-KELLEHER: I practiced because I saw Grady struggling --

CHAIR ANDERSON: Okay.

MS. GRIEGO-KELLEHER: -- the entire time.

CHAIR ANDERSON: Okay. Thanks a lot.

MS. GRIEGO-KELLEHER: I've been trying to figure out how am I going to get this to work.

CHAIR ANDERSON: Yeah.

MS. GRIEGO-KELLEHER: So, I just -- yeah. I don't know. It worked for me. So, all I did was just pull it up and hit the button on the bottom that Grady was trying to hit. So, I don't -- I don't know what happened to you, Grady, but it worked for me.

CHAIR ANDERSON: Okay.

MS. GRIEGO-KELLEHER: But, yes. I'm Gina Griego. I'm with the Department of Energy. I'm the program manager for EEOICPA with the Department -- I think in the past, you've probably heard from Greg Lewis

who's the director of the office that, more or less, it manages the EEOICPA program and the former worker and medical screening program.

Today I'm just going to give you a brief update of our roles and responsibilities and go over some of the metrics from this past year. And before I get started, Grady, are you -- is there another Board meeting before you retire? Do you know? Because if not, I just want to --

MR. CALHOUN: Yes, yes, I do know that there is not.

MS. GRIEGO-KELLEHER: Right. Well, I just wanted to say thank you before you --

MR. CALHOUN: Oh, well, you're very welcome. And you and I will be in touch before then, so.

MS. GRIEGO-KELLEHER: Okay. I appreciate that. No, it's -- it's been a great experience with you, Grady. You've made the program, you know, quite interesting at times. But I really did -- I appreciate -- have appreciated working with you. So, thanks again. I wish you the best of luck. And I just wanted to put that on the record. So, thanks. You've been a great partner.

Just to move forward, I'm going to go ahead and talk about just a little bit of our program news. I believe we've mentioned this in the past, but one of the things that we've tried to do is we've tried to improve SERT, which is our secure electronics record transfer system. So, that's more or less our database that we use to transfer records to or from the Department of Labor and NIOSH and our sites. That system was set up, I believe, in maybe, like, a 2013 time frame. So, we're working with our IT folks to make some modifications to make it much more efficient.

There was a -- there was an update this last year. And, I believe, it's -- it's been rolled out pretty well, but it's streamlining the process and it's -- it's aligning with the national approach versus the -- the previous district office approach. So, we haven't received any complaints. We're looking at probably another revision next year, just some minor tweaks to the system. But other than that, that's more or less our big update with respect to the program.

I do want to mention, and it kind of goes in alignment with what NIOSH reported on, on personnel changes. There have been a lot of changes within DOE sites. There are a lot of retirements there taking place.

There are retirements within the office of classification at headquarters where personnel has been moving around.

So, we just want to request, you know, that you be patient with us in the field because there is some transition going on. So, you may not be -- you may be reaching out to somebody, or you see that there's a lag time in -- in responses. You know, if you have any concerns, please let me know and I can reach out to that site or let you know if there's -- you know, potentially why there might be a delay. But again, there are -- there are a significant amount of -- of personnel that are retiring.

And then classifications the other one. We've had some changes at headquarters with classification folks moving around. So, I know that there's been some delay in some, you know, classification reviews for some various reports, and we're aware of this. So, just to let you know, that's -- that's probably one of the reasons for the delay.

Something else I wanted to mention, I think -- and I think we've

talked about this before, that we've seen an increase in the number of records. So, in FY '23, we had 18,000 -- almost 19,000. At the end of FY '24, we had over 20,000. So, we're basically seeing a 10 percent increase. And that's been going on for the last three years. I know we've talked about it in the past, you know, what's the driver; is it outreach? You know, we're not really sure, you know, what the driver has been per se for -- for the increase.

But, you know, we are working with our sites. We are working with our budget folks, because, again, because of the increase, that means that we have to be concerned about making sure we get enough budget -- enough funding out to the field to process the requests, and not only the requests, but any kind of research projects. So, we're trying to do some outward planning in our out years to make sure that we have the -- you know, sufficient amount of funding of the...

As you know, DOE's responsibilities is pretty much three-pronged. You know, we provide records for Department of Labor and NIOSH to support claims. We also provide support with research projects for site characterization with Department of Labor and NIOSH. And then also we have the responsibility to maintain the current facility list and update the facility list when necessary.

And just to mention on that Speedring question that came up, you're right, it is beryllium vendor. And we had to update it because they're currently providing the Department of Energy beryllium, so the date was, basically, just updating to reflect that they're still -- you know, to present date, that they're covered as a beryllium vendor. So, we just had to modify

some of those dates. But I believe that facility is in Alabama.

With respect to individual records, I know many of you have heard this before, but, you know, a lot of our claimants have worked at multiple DOE sites. They might have worked for multiple contractors or subcontractors. So, at times that can be very challenging for our sites in trying to identify records related to quantification or kind of -- any kind of exposure record.

You know, a lot of workers may have worked at multiple sites, so we might have DOE or DOL sending requests for records to, you know, multiple sites, you know, Nevada, Los Alamos, Savannah River. You know, a lot of these workers moved around, and so, it can take some time to pull all the records together to respond to these requests.

With respect to research projects, this is just more or less a snapshot. I think this has probably changed. I haven't had a chance to update the list based on information I received from NIOSH and Labor. We recently requested that they provide us with a list of sites that they plan on reviewing or researching for FY '25. And honestly, I haven't had a chance to update that. But I don't think much of it's changed, per se. There might be a few added sites, but I'll make sure at the next Board meeting that that's updated.

DOE document reviews, as I mentioned, that takes a significant amount of effort by our sites to make sure that they review documents that are provided to Department of Labor and NIOSH in response to the site characterization. We've got, you know, people at headquarters that reviews reports. And generally, we can actually turn those around within eight days,

but as I mentioned, I think we've seen a slowdown lately just because

of personnel changes. But normally, they're pretty quick. And unfortunately, that'll -- we'll get back to the eight days here soon.

Again, I already mentioned the facility research. The one thing we did do within the last couple of year -- years is we did modify and update the covered facility list. So, if you've not had a chance to look at that website, I would suggest take a look at it. There's a map function where you can actually do a snapshot or look at the map and see, you know, which states have X number of sites by state. You can do a search, and then you can put all the information into an Excel spreadsheet. So, we try to make it as user and research friendly as possible.

And if you have any recommendations or -- for improvements, you know, please reach out to us. We're always looking for ways to improve the website.

With respect to DOE metrics, as I mentioned, in FY '24, it was over 20,000. Over 60 days -- our goal is to respond within 60 days. We had over 1,000 and our time was 95 percent. We still have -- you know, given the fact that we've had 20,000, you know, our sites have done a great job in -- in -- in staying within the 60-day time frame. So, our on-time average is 95 percent. Since 2001, it's clearly over 360,000 responses that we've provided to the Department of Labor and NIOSH.

This is an old number, and I think that we've had here for a couple of years. I need to go back and update that. So, I'm sure it's probably closer to, you know, 400,000 at this point.

And then the other program I mentioned was the former worker medical screening program. This is a screening program that screens all

former workers from all DOE sites. In the outreach portion that labor mentioned earlier, we saw, I think, the former worker medical screening program will be offering a webinar. And so, that's a very good opportunity for people to understand, you know, what the former worker program covers, you know, if -- what a -- with respect to the type of screening it provides, you know, surveillance, when people are eligible for re-screening, the various type of -- the various programs and the sites that they cover. So, I would highly recommend folks to participate or listen on that webinar. I think this is probably -- I think we only do it once or twice a year for the former work -- for the former worker medical screening program.

And then one other thing we want to, you know, stress to folks is even though you might be a current worker at one site -- you work at Idaho now, but you worked at Savannah River -- you would be considered a former worker for Savannah River. So, I think workers don't realize that there is somewhat of a loophole that you can actually screened from another -- if you worked at another site. So, we're starting to see more of an increase in -- in folks that are requesting screenings.

And that's pretty much it in a nutshell for DOE. I know you might have some questions and -- outside of the presentation, so I'll do my best to answer them. If not, I'll -- I'll get the answer for you.

CHAIR ANDERSON: Thanks, Regina. Just a quick question. The increase in records requests, where is that coming from? I mean, most of your requests must be at DOL and NIOSH. Is it more -- requests more from NIOSH, or is there another source of people asking for records?

MS. GRIEGO-KELLEHER: It's Department of Labor. So, I think it's just

an increase of claims. And I think John can probably give us stats on the number of claims that we're seeing per -- per week, but that has increased. And it -- and it's -- you know, it varies from site to site. You know, I think, you know, Los Alamos, there's -- we've seen a spike at Los Alamos. Oak Ridge we've seen a spike. I think a lot of our sites we've seen, you know, spikes of an increase in the claims, but I don't think it's just one -- one site or the other. But it's definitely an increase.

CHAIR ANDERSON: Okay.

MS. GRIEGO-KELLEHER: And then --

CHAIR ANDERSON: Thank you. Other questions?

MEMBER CLAWSON: Yeah, Andy, this is -- this is Brad. You know I can't let Regina go without asking a few questions. One of my things is you were talking about the budget, and I'm especially interested in recovery of data for Hanford. There -- my understanding is that there's been a budget issue with that, being able to recover that, and I wonder if we have got that taken care of because we're -- we're waiting for quite a bit in there. And I'm just wondering if you had anything.

MS. GRIEGO-KELLEHER: Sure. No, what -- what we did do at the end of last year because we were running on fumes, I guess you'd say, from a funding standpoint, we asked the sites to put a pause on the research projects and focus on claims. And at this point, we've actually provided funding to the field, and we've told them to go ahead and start resuming research activity. So, you should start seeing more information coming in from the sites from -- from research activity that was going on this last year.

MEMBER CLAWSON: So, I appreciate that. Thank you, Regina.

CHAIR ANDERSON: Other comments?

MR. CALHOUN: This is Grady. Can I chime in again?

CHAIR ANDERSON: Yeah, sure. Absolutely, Grady.

MR. CALHOUN: Okay. Just a couple things, because I got in the interagency call last week is that, I believe -- and Regina and John can correct me if I'm wrong -- just so you guys know, the majority of these increased data requests are applicable to Part E, not Part B. We're seeing an increase in cases as well, but I think that they told us it's primarily Part E.

The other thing I want to chime in on is the budget issue, just since Brad brought it up. We still are operating under the same budget we were 20 years ago. Unlike labor and DOE, we didn't request an increase, and I don't know why we didn't. I'm in the process of that now. Given the change in administration, I don't know how luck -- how likely that is to occur. But we, too, are focusing primarily on dose reconstructions and SECs.

So, there's going to be some things that have to fall by the wayside, at least be postponed, at least. And, you know, I'm talking about responses to, for example, the -- the Procedures Review Subcommittee, the Dose Reconstruction Review Subcommittee. Some of those are going to have to be delayed until either we get more funding or when we get a little bit more efficiency with our dose reconstruction applications. So, I had mentioned that several months ago, but I just want to throw that out there again.

CHAIR ANDERSON: Thank you. Other comments?

MEMBER BEACH: Yeah. Andy, this is -- oh.

MEMBER ZIEMER: Andy, I have a follow-up on --

CHAIR ANDERSON: Go ahead, Paul.

MEMBER ZIEMER: -- that comment. Yeah. Regina, I was wondering, how is the staffing in your group? Is it remaining level, or are you shorthanded, or where are you on staffing? Budgetary issues are always in there, but also staffing re -- is reflected in that.

MS. GRIEGO-KELLEHER: Right. And we've been very fortunate at headquarters, because we actually picked up an employee. So, she is -- she's got a background in outreach. So, if you'll remember when [Identifying information redacted] was -- was in our office, you know, she handled outreach, so that will be Cheyenne. From the field standpoint, I think more or less we're okay. I mean, we've had a couple sites that had to hire a full-time employee just to keep up with the claims, but I think we've got a pretty good handle on sites that -- that need those -- those resources. So -- so, all in all, we're fine.

It's just the billable hours, right. So, it's -- it's making sure we have enough money out in the field to handle classification reviews or, you know, the industrial hygiene group looking at records. So, I mean, that's -- that's our challenge is just seeing that increase, and then it's -- it's actually impacting our budget in the field.

CHAIR ANDERSON: Thank you. Go ahead, Josie.

MEMBER BEACH: Yeah. Regina, back on your slide nine talking about the former worker medical screening program, it says that all former workers from all DOE sites have some place close to their location. Can you give me a little more information on how somebody would find that information, and where they could get screened?

MS. GRIEGO-KELLEHER: Sure. So, there's a supplemental screening

program. And so, they have established contracts in various locations. So, it might be a clinic that might perform the test, per se, or do some of the initial screening, but it's the former worker medical screening program that actually interprets the results. So, we'd have to reach out to the national supple set -- supplemental screening program to figure out where the closest location is for that employee. So, I couldn't tell you, but I can definitely provide you with the contact information as a follow-up.

MEMBER BEACH: Okay. Yeah. Recently I've had people ask me just here at home where they can get screened, and I did look up some -- some programs, but I was curious if there was a list from DO -- DOE also.

MS. GRIEGO-KELLEHER: I don't know the list, per se. I just -- I just know we usually go --

MEMBER BEACH: Okay.

MS. GRIEGO-KELLEHER: -- to the supplemental program. They've got their database. But Josie, I'd be happy to -- I can follow up with you.

MEMBER BEACH: Okay.

MS. GRIEGO-KELLEHER: We can help -- help those folks that need that -- that information. I'd be -- be happy to do that.

MEMBER BEACH: That'd be great. Thanks, Regina. Great. Great report today, by the way.

MS. GRIEGO-KELLEHER: Thanks.

MEMBER BEACH: Always nice to see and hear you.

MS. GRIEGO-KELLEHER: I appreciate it, Josie. Same here.

Anybody else have any questions? Okay.

MEMBER POMPA: Regina, --

CHAIR ANDERSON: You know, if you're going to be sending information to Josie on the sites, that might be helpful, Rashaun, to have that information passed along to all the Board Members, because those are the kind of questions we get.

MS. GRIEGO-KELLEHER: Okay. That's not a problem at all.

UNIDENTIFIED SPEAKER: Regina, --

MS. GRIEGO-KELLEHER: We're re-mapping our website, too,

CHAIR ANDERSON: Yeah.

MS. GRIEGO-KELLEHER: -- so, and that's going to be one of the purposes of showing out our outreach coordinators to do more of this, right. So, this is --

CHAIR ANDERSON: Yeah.

MS. GRIEGO-KELLEHER: -- I'll definitely make sure we provide this info to you. Thanks.

MEMBER VALERIO: Regina, this is Loretta. Can you hear me?

MS. GRIEGO-KELLEHER: I can hear you, Loretta. How are you? Good to hear from you.

MEMBER VALERIO: I'm good, thanks. Sorry, it takes me a few seconds to unmute. So, I was thinking about Josie's question. Do the local resource centers have the information for the former workers program that they can assist in providing guidance to people who need a screening?

MS. GRIEGO-KELLEHER: I want to -- I'll -- I'll say yes, because we work closely with them, particularly for outreach events. So, now, I don't know if it's a daily thing as they come in, and if they hand the information out. I don't know what their script is, but I know that we've provided the

information to them. I guess, that's a -- probably a follow-up question for labor, you know, as to how that is -- is shared with the public.

CHAIR ANDERSON: Okay. Any other comments, questions?

MEMBER POMPA: Yes, sir. Andy, this is David Pompa from --

CHAIR ANDERSON: Go ahead, Dave.

MEMBER POMPA: -- Pantex employee -- former employees have asked me in the past how do they retrieve or get medical and work history records. They're filing a claim, and they need -- they're requesting their medical records. How do we go about that? Because when I retired --

CHAIR ANDERSON: Oh, Dave, you put yourself on mute.

MEMBER POMPA: I did.

CHAIR ANDERSON: There you go. Okay.

MEMBER POMPA: Before I retired, I asked -- requested for mine under the Freedom of Information Act out of Albuquerque DOE, but I never received them. Some of the workers -- former workers are asking. Any guidance on that?

MS. GRIEGO-KELLEHER: Well, we -- we encourage the -- the employee to allow the Department of Labor when they file a claim, you know, allow a -- labor to make a request, because the duplicate requests would cause a delay; however, what we highly -- highly suggest that employees, when they retire, even if they have -- they're going to file a claim for EEOICPA, is to just go ahead and make the Privacy Act request and have a copy of their own records.

So, but again, if they filed a claim under the EEOICPA, we're asking that they don't reach out to the site to request their records. Not to say that

they're not allowed to; they can, but Department of Labor does that work. And then we provide -- you know, conduct the research, provide the records to Department of Labor, and then the employee can have access to those records. I think that they're called -- the electronic system -- and John Vance or somebody from labor can correct me if I'm wrong, but it's my understanding they have access to those records.

MEMBER POMPA: Okay. Thank you.

CHAIR ANDERSON: Okay. We're running a little behind, so no other questions. I want to thank Regina and all the presenters so far. It's been very informative. Let's now move on, Josie, to procedures review, you and Kathleen.

SUBCOMMITTEE ON PROCEDURES REVIEW

FINALIZATION/DOCUMENTATION APPROVALS

MEMBER BEACH: Yes. Kathy, are you going to present your slides?

MS. BEHLING: Yes, I am. I'll try. Okay. I -- I don't have anything to say other than I'm going to go ahead and let Kathy start. We're -- we're reviewing six documents, as you saw, probably, from your review. And the same procedure as in the past, we'll close out each one of these after the presentation and, of course, after questions. So, I'll let Kathy start.

MS. BEHLING: Hello, can you hear me? Can everyone hear me?

MEMBER BEACH: Yes.

CHAIR ANDERSON: Yes, we can, Kathy.

MS. BEHLING: Okay. Very good. Thank you. Just wanted to be sure.

First of all, thank you for the opportunity to present these six documents today. I know sometimes these can get a little lengthy, and today's not going to be an exception to that. We have a lot to talk about.

So, the first document, there's -- this is -- this slide shows you the six documents we'll talk about today. There are three program evaluation reports, one ORAU technical information bulletin, and two procedures. So, we'll start with OCAS-PER-9, which is the target organs for lymphoma, which was issued way back in March of 2007. And the PER was issued to assess the impact of changing internal and external target organs that are used for several forms of lymphoma.

This PER was necessary due to the issuance and revision of OCAS-TIB-12, which is selection for internal and external dosimetry target organ -- organs for lymphatic and hema -- hematop -- hematopoietic cancers. The change resulted in increasing internal doses because target organs for most forms of non-Hodgkin's lymphoma and some forms of lymphoma were changed from being the highest nonmet -- nonmetabolic organ or remainder to thoracist -- thoracic lymph nodes. The impact of external dose is due to the external target organ was changed from bone marrow to various other organs, such as stomach, spleen, thyroid, lung, and bladder for most lymphomas.

So, just as a reminder, for PERs, SC&A performs two separate reviews. One that looks at the PER approach, any associated technical documents, and pace selection process. That's considered our subtask one through three report. And then under subtask four, we review a sample of impacted cases. So, for our subtask one through three review, it was issued in June

of 2008. And it is available on the NIOSH website. And we identified two findings. This review was presented to the subcommittee at the April 2008 meeting and further discussions were held at the 2010 and 2011 meetings.

So, finding one, for certain lymphomas, there is a substantial level of uncertainty regarding the cell line where the neoplasm or tumor originated, as well as the anatomical location where the neoplastic transformation took place. So, improvements in diagnostic procedures over the years have reduced this uncertainty, but finding one is concerned about claims diagnosed when the clinical data didn't allow for adequate assignment of ICD-9 codes. ICD is international classification of diseases. And when the program started, we used ICD-9 codes. Today they have been replaced by ICD-10 codes, which are more specific.

NIOSH responded that they do not question DOL's ICD-9 selection, they simply perform the dose reconstruction using the provided cancer classification. The subcommittee closed the finding and indicated that the concern involved changes in a diagnostic process that occurred over, like, the last decade. And the subcommittee indicated they would ask DOL if this is an issue that they can investigate.

Okay. Finding two, I'll try to present a simplistic explanation of this finding. There are two mechanisms that clear inhaled insoluble particles, such as radio part -- particulates from the respiratory tract. And the first is a ciliary clearance and the second is a type of immune (indiscernible) called alveolar macrophages. These macrophages relocate the radio particulates to the regional lymph nodes. And typically or namely that is the thoracic and extrathoracic lymph nodes.

Well, in smokers, that ciliary clearance mechanism is often impaired, and this results in longer residency time of these radio particulates in the lung. Now, consequently, a significant increased number of macrophages are then called to the area, and this results in increasing the transfer of particulates to the thoracic and extrathoracic lymph nodes. And for that reason, smokers are likely to be at greater risk for a lymphoma than nonsmokers. So, the subcommittee, although they acknowledged that this issue may have a significant impact, they felt that it was beyond the purview of the Board and NIOSH to address the issue, so they closed the finding.

Okay. Subtask four: Under subtask four, three cases from the 500 cases that were evaluated were selected for review of reworked internal and external doses. SC&A's report was issued in February of 2014, and a review identified four findings, which were presented to the subcommittee at their November 25, 2014, meeting.

So, finding one, SC&A questioned the technical basis for consolidating two primary lymphomas that were identified in the original dose reconstruction to one lymphoma in the reworked case. And again, NIOSH indicated that they typically do not question DOL's diagnostic -- diagnosis. And again, the subcommittee felt that this was really outside the purview of the subcommittee, and they closed the finding and indicated they would bring it to the attention of DOL.

So, finding two, for calculating occupational medical doses, NIOSH refers the organ doses listed in appendix -- no, attachment E of PROC-6. Proc 6 was the external dose reconstruction procedure, and NIOSH acknowledged that this -- the omission of the title attachment E, but it

states that the table of contents does refer the reader to page 94 to find this list. And then based on that response, the subcommittee closed the finding. Finding three, there were maximizing assumptions that were -- we felt were inappropriately used to calculate missed photon dose. Typically, maximizing assumptions are used when accounting for select conditions of uncertainty or as an efficiency measure. Neither of these conditions applied to this reviewed case. NIOSH stated that when the dose reconstruction was performed in 2007, the maximizing approach for assessing this external dose was the standard efficiency method that was used. However, this maximizing approach is no longer typically used, and based on that response, the subcommittee closed the finding.

Finding four, values for external and internal photon and neutron doses are incorrect due to an error in the Fernald calculation -- calculation workbook. And NIOSH indicated that the tool was actually working properly, and it was just that the correction factors we expected to see, correction factor 1.43 and 1.3, depending on the photon energy, that are cited in the TBD, are only applied to measured dose not missed dose, and there was no measured dose in this particular case. And based on that response, the subcommittee closed the finding.

Okay. That's it for PER-9.

MEMBER BEACH: Okay. Thanks. Thanks, Kathy.

Andy, do you want to handle the vote after comments or any questions? And in case you're on mute...

CHAIR ANDERSON: I was going to say, yeah, go ahead and do the comments first, and then --

MEMBER BEACH: Yeah.

CHAIR ANDERSON: -- the vote's going to be -- since we've got a big group -- if anybody objects to closing it, let them speak up rather than go through a roll call or anything.

MEMBER BEACH: Okay. And just as a reminder, I know Kathy mentioned it a couple times, the subcommittee did close --

CHAIR ANDERSON: Yes.

MEMBER BEACH: -- all of these formally within the subcommittee, and --

CHAIR ANDERSON: Right.

MEMBER BEACH: -- we're finishing the process.

CHAIR ANDERSON: You're recommending that they -- that the Board close them.

MEMBER BEACH: Correct.

CHAIR ANDERSON: Go ahead. Any questions?

MEMBER BEACH: It sounds like we have no questions, so all in favor of closing? I know you usually do this, Henry.

CHAIR ANDERSON: You can go ahead.

MEMBER BEACH: Yeah. All in favor? Anybody objects, please let us know. Hearing none, we can move on, Kathy. Thank you.

CHAIR ANDERSON: Unanimously accepted your recommendation as a Board.

MEMBER BEACH: Yes.

CHAIR ANDERSON: Go ahead then.

MS. BEHLING: Okay. Very good. All right. Next is OTIB-57. OTIB-

57 documents NIOSH -- NIOSH's approach to estimating external dose to individuals that were near the 1958 criticality accident at the Y-12 plant. The OTIB was issued in 2006, and it assesses available dosimetry data to determine the application of that data to reconstruct the worker doses. SC&A reviewed this OTIB in 2007 under our third set of procedure reviews, and we identified three findings.

The review was presented to the subcommittee at the October 15, 2009, meeting, and I am going to give you an understanding of this -- this OTIB before I launch into the findings. And I apologize for not giving or presenting or preparing another slide. It occurred to me while I was measuring the presentation or preparing for this that another slide would have been prudent, but I'll just explain what was -- basically, what was done in this OTIB, because it will help you to understand the findings and NIOSH's response.

So, doses were estimated for the eight most highly exposed individuals, and that was based on blood sodium activation. And a mock-up of the criticality using a burro. Measurements of the sodium activation in blood of the burro allowed for an estimate of first collision absorbed dose from neutron and gamma rays. Information on the distances of -- from the accident at the time of exposure was available for 23 workers. So, the first collision doses for these workers were estimated using an inverse-square scaling and normalized to doses for two of the eight most highly exposed individuals who were about 25 feet away from the accident. In addition, there were -- there was some -- the dose estimates were then compared to some available film badge data. Five of the 23 workers actually were

wearing film badges.

So, finding one: Finding one just identifies three incorrect statements in the OTIB, name -- namely, the whole-body count limit is listed as 15 millirem rather than 15 rem per year. There's a Table 5.1 that should have specified that the first collision dose equivalent was derived using relative biological effectiveness factor of 2, and a sentence on page 16 should have stated neutron energies less than rather than greater than 10 keV was 13.5 percent. And NIOSH agreed that these -- these were incorrect -- incorrect statements, and the subcommittee closed the finding.

Okay. Finding two: Forgive me for this busy slide, but I wanted to present the details of NIOSH's response. So, finding two centers around the lack of detail regarding dose uncertainty. The OTIB suggests that uncertainty was about 25 percent; however, SC&A felt in accident scenarios, this uncertainty can be at least 50 percent, and SC&A in its review identified several potential areas of uncertainty.

NIOSH disagreed for the following reasons: They said early dose estimates were calculated that used known locations and estimated numbers of fissions and produced doses that were unreasonably high; therefore, they feel first collision doses can be used to estimate the organ dose with a certainty of even less than plus or minus 25 percent. Some uncertain -- uncertainties were accounted for using realistic mock-up, and there was also an experiment done, as I mentioned earlier, where a burro was exposed to first collision doses of 48 rads. The burro was selected because it has nearly the same amount of sodium per gram of blood serum. And NIOSH indicated that the dose measurement errors for sodium activation of whole blood and

the difference between the burro and man have already been taken into account because this was one of SC&A's uncertainty concerns.

And lastly, interviews were conducted with the employees in the building at the time of the accident. Oh, and I forgot to mention that based on that response, the subcommittee did close this finding.

Okay. Finding three: There -- there was no comparison done of neutron doses obtained by sodium analysis at various distance -- distances to those obtained by inverse square of the distance for the two workers who were used to estimate the dose to the other workers further away. NIOSH disagreed with this because they said that there is no correlation between the estimated doses for the eight highest exposed individuals and their distances from the criticality. The difference in dose is actually a result of the workers' movements after the alarm sounded.

Workers who were named Worker F and G, they were the two highest exposed at the 25-foot distance from the criticality accident were likely exposed for the longest period of time. And so, the doses to those individuals would be a baseline for estimating dose to other employees using the inverse square of the distance for the other 23 workers. Of the five workers wearing the beta-gamma field badges, one gamma -- gamma dosimeter reading was in close agreement with the estimated dose. And the others NIOSH indicated were extremely claimant favorable; however, those field badges were actually considered. The other four workers had significant potential for shielding against radiation, so that data was not used.

That sums up OTIB-57.

MEMBER BEACH: Thank you, Kathy. Any questions, discussion? Hearing none, we are --

CHAIR ANDERSON: The committee closed those out, they agreed with the NIOSH explanation?

MEMBER BEACH: Yes.

MS. BEHLING: Yes.

CHAIR ANDERSON: Okay. Is there anyone who wants to say anything or is -- opposes accepting the committee recommendation to close out ORAU-OTIB-O057's review? Hearing no objections, we're going to accept unanimously the committee's recommendation to close this out and accept the report.

Go ahead, Kathy.

MS. BEHLING: Okay. Now, we're going to move on to ORAUT-PROC-90. This is the computer assistant telephone interview, the CATI process, which establishes the requirements for conducting a CATI. The original document, the original PROC-90, was issued in June of 2005 and then was revised in March of 2011.

Proc-90 actually replaces three older procedures, namely PROC-4, PROC-5, and 17, which describe scheduling, performing, and reviewing telephone interviews respectively. SC&A actually reviewed those three procedures under our first set of procedure reviews back in 2005. So, this review resulted in the identification of 29 findings. Now, since PROC-90 was the current procedure, NIOSH used it to address all of our findings from the PROC-4, PROC-5, and 17. So, the review was initially discussed at the December 2007 subcommittee meeting, and follow-up discussions were held

at two meetings in 2008, and everything was finalized in April of 2015.

So, the first four findings are -- are shown on this slide, and I've grouped them together because their resolution is the same, but I'll -- I will also note as we go through this presentation for PROC-90, the -- all of the findings -- or a lot are going to have a similar theme and may seem duplicates. And this happened primarily because our initial auditing protocol contained a checklist of review questions, and this resulted in maybe one concern or one finding being applicable to several review objectives. I just wanted to give you an understanding of why this -- the occurred.

So, finding one talks about the interview letter is sent out without adequate dose reconstruction information. And finding two, the letter also lacks any essential content, especially for family member claimants. Finding three, the same letter is sent to all claimants, which is -- has an implicit bias for family members. And similarly, the request for telephone inter -- interview is done without better claimant preparation.

So, the resolution for findings one through four, NIOSH agreed. And as a result developed an acknowledgment packet. In addition, NIOSH revised the attachment to the CATI letter, which addresses these findings. SC&A reviewed both of these documents and agreed that the findings were adequately addressed, and the subcommittee closed the findings at their July 2008 meeting.

Somehow in this long list of 29 findings, there was no finding that was number five, 0so we're going to go on to finding six that states there's no close-out interview procedure and related issues that are relevant at the CATI stage. By 2008, NIOSH had published a close-out interview procedure,

which is Proc-92, and so this finding should be transferred to the resolution of any findings in Proc-92. And so, it was closed by the subcommittee and transferred to that review.

Finding seven, there is no requirement or procedure for performing coworker interviews. And if these coworkers are not interviewed, the claimant is not given a reason why. Niosh stated that coworkers are generally not interviewed if they can determine that they have enough information to complete the dose reconstruction. NIOSH indicated that they will change the coworker wording interactions with the claimant and either include a definition of coworker or change the term to fellow workers. Initially, this -- this finding was put into an -- in abeyance status awaiting NIOSH's revision, and in 2009, the CATI form was revised and reviewed by SC&A. It was found to be acceptable, and the subcommittee closed the finding.

Okay. Finding eight, procedure lacks sufficient information to assist the recipient in interpret -- interpreting the questions. And again, this is especially true for family member claimants. And NIOSH responded that interviewers do not coach claimants or reject information. The interviews are -- interviewers are trained to assist the claimant throughout the interviewing process, and they will seek the assistance of a health physicist if necessary. However, NIOSH did agree to revising the procedure and the CATI form. That was ultimately done and approved -- or reviewed by SC&A and found to be acceptable, and the subcommittee closed the finding in 2015.

Okay. Finding nine, the interviewer does not need to have a list of

incidents or site-specific job categories or be familiar with the facility. And NIOSH responded that it's unlikely the interviewer could even cover all of the incidents or job categories and etc., and it's not reasonable to expect the interviewer to be knowledgeable about all operations at the facility. However, they did agree to revise the CATI form, and that was done, and the subcommittee closed the finding.

Finding 10, the interviewer is not -- similarly, the interviewer is not required to have knowledge of the facility. NIOSH again, said there is an attempt to use interviewers who are familiar with the -- with the site, but it's not a requirement, but they agreed to attempt to assign interviews to certain sites and provide site-specific training. And based on that response, the subcommittee closed the finding.

Finding 11, the procedure is biased when the claimant is a family member, and there is no coworker interview required prior to denying the claim. NIOSH stated that this finding is similar to finding seven, and it will be addressed in the same way, which will include revising the CATI form. And again, that was done, and the finding was closed by the subcommittee.

Okay. Finding 12, this finding, again, identifies that since the interviewer may not have site-specific knowledge, this may produce apprehension that is not addressed in the procedure. And NIOSH agreed to change the wording in the interview letter to make it less threatening. And that response was that -- based on that response, the subcommittee closed the finding.

Finding 13, again, touches on the issue of the interviewer not being trained to ask for site-specific information. And both NIOSH and SC&A

agreed that aspects of this particular finding were captured elsewhere, and that would be -- they would be -- this would be addressed under those previous findings, and the subcommittee closed the finding.

Okay. Finding 14, the interview form does not ask for all pertinent information. And -- oh, I will go through this. It was very pertinent. It was pertinent information that was ultimately added, and things like work hours per week, work duties, internal radiation doses, copies of dosimetry records, routine risking surveys, radiation area monitoring, radon monitoring, worker restrictions, incidents, medical X-rays, and coworker information, and NIOSH agreed, and all of these questions were ultimately incorporated into the CATI form. Based on that, the subcommittee closed the finding.

Finding 15, the procedure does not give an explanation for not using certain information. And NIOSH explained that the information collected during the CATI is not used until the dose reconstruction is actually performed. So, only then would they know what information was used and how it was used. They did state that efforts were made to explain the use of the CATI information in the dose reconstruction report; however, it's not a requirement. And based on that response. The subcommittee closed the finding.

Finding 16, the EE's DOE file is not required to be with the interviewer during the interview. And NIOSH responded that the DOE dose records are shown to the claimant during the closeout interview, and this issue was -- is -- will be covered in their PROC 92 procedure. And based on that, the subcommittee closed this finding and actually transferred it to the PROC-92 review.

Okay. So, the next four findings are similar to previous findings and in brief, they discuss the lack of claimant favorability for family member claimants, insufficient interview -- interviewer training, and the coworker issue, and also the gaps in the CATI questions. And the resolution to those findings, it was determined that these findings would be addressed in previously identified findings and therefore, they were closed by the subcommittee.

Finding 21, SC&A felt that the definition of key terms, such as completeness and technical content were not given in the procedure, and NIOSH agreed to make these terms clearer in the revised procedure. And that was done, and in 2015 subcommittee meeting, the subcommittee closed this finding.

Finding 22, the procedure does not reference the site profile, closing interview, or the claimant dose files. Again, it was agreed that this issue was covered under PROC-92 and should be transferred to that review.

Okay. Again, I -- there are -- actually, the next seven findings are similar to previous findings. The four shown here include concerns about inconsistency if key terms are not defined, reviewer qualifications, the review process, and family member claimant concerns. And then the next three are concerns that the CATI follow-up procedure does not include any feedback from the interviewer, such as the completeness and usefulness of the information, whether the information was used, and whether more information should be solicited from the claimant.

Finding 28, the reviewer is not required to know the site profile or have the claimant dose records. And finding 29, the scope of the terms

again, completeness and technical content is not specified. So, for those previous seven findings, NIOSH and SC&A agree -- agreed that these issues were discussed earlier, and the resolution was to change the language in PROC-90. The PROC-90 was revised in 2011 to the satisfaction of SC&A and the subcommittee, and it was closed at the April 2015 subcommittee meeting.

And lastly, finding 30 states that the CATI reviewer is not required to examine the workers' DOE files. And as previously stated, the DOE records are made available to the claimant at the closeout interview, and this should be covered under PROC-92. And so, it was closed and transferred to PROC-92 by the subcommittee.

And thank you for bearing with me for discussing 29 findings.

MEMBER BEACH: Yeah, thank you, Kathy. I know that was a tough one that you struggled with when to present it and how to present it, so we appreciate that. This goes back a long ways. Any discussion? questions?

CHAIR ANDERSON: I would just like for members who were not on the Board back when this started 20 years ago, 2005, that there really has been quite a, I would say, positive evolution to the procedures that NIOSH has used. And I think our review with those, while it has been onerous at times, really has been beneficial to the Board to see what's going on and that, in fact, there is an in-depth look at these. The -- the program has matured over the years, and I think this is -- just confirms that, in fact, that's occurred. So, if there's no other questions, I would say that there was a unanimous approval to close out 0090 after all this time, but it was very helpful to go through this and see the changes and look at the interaction

between SC&A, the Board, and NIOSH and resolve the issues that came up in retrospect on these. And therefore, to -- if nobody's objecting, the Board is going to unanimously accept the review and the close out of ORAUT-PROC-0090.

MEMBER BEACH: Okay. Thank you. And then we can --

CHAIR ANDERSON: Good job, Kathy. You summarized that well.

MEMBER BEACH: Yeah.

MS. BEHLING: Thank you.

MEMBER BEACH: All right. Let's move ahead.

MS. BEHLING: Okay. Now we're going to move on to the related procedure we've been referring to, and that is PROC-92, which is the close-out interview process. The procedure was initially issued in August of 2005 and was revised twice in -- once in 2012 and once in 2019 -- 2015. I'm sorry. And as the title suggests, the document establishes the requirements for scheduling and performing close-out interviews. The -- SC&A review rev. 0 in September of 2007 -- excuse me -- and identified nine findings, and the review was discussed at the December 11, 2007, subcommittee meeting.

So, finding one states that the procedure does not ensure that the claimant's concerns are adequately addressed and identifies five specific areas of concern. First, there is no guidance on how claimant's questions should be researched and answers determined. And secondly, SC&A actually observed two interviews during the procedure review, and they identified that claimant's concerns about relevant data were not examined.

SC&A also noted that the documentation of the interview process varied. Some was extensive and others was rather brief. And substantive

information provided by the claimant was not addressed by dose reconstructors. And according to ORAUT map -- ORAUT managers, the HP reviewers who respond to technical questions that cannot be answered by the interviewer are not HPs, they're not health physicists, and they do not have dose reconstruction experience. I apologize. I should have turned that slide. Forgive me.

So, NIOSH agreed with the finding and responded to each of these finding subparts. For each subpart, NIOSH stated that they will review PROC-92 and determine if revisions are necessary, but, specifically, for part one, NIOSH did indicate that due to the uniqueness of each interview, they really couldn't develop any standard set of questions to cover all situations.

And with regard to observation two -- no, to the two observed interviews, NIOSH will review these cases and determine if any changes are required. Regarding the interview documentation, NIOSH states that conversations are logged into NOCTS, and the communications staff is reminded of information that needs to be recorded.

Number four: When the claimant provides substantive information, the HP reviewer determines if that information was available prior to performing the dose reconstruction and if the information was used -- excuse me -- or addressed in the dose reconstruction report. OCAS also agrees that the procedure should review -- should be revised to reflect the current practices. And under number five, the HP reviewers are required to have standard qualifications and are trained in basic dose reconstruction principles and methodology, but these reviewers are not health physicists. So, NIOSH will consider changing the title of these individuals from HP

reviewers to closeout specialists.

So, finding one was closed at the April 2015 subcommittee meeting after PROC-92 had been revised twice. And sub -- SC&A reviewed the revisions and found that it addressed all our concerns, so the subcommittee closed the finding.

Finding two, the procedure does not provide adequate information to ensure the claimant understands the dose reconstruction and its implications for compensation prior to signing the OCAS 1 form. Now, this OCAS 1 form is a statement signed by the -- by the claimant that closes the record on the NIOSH dose reconstruction, and the dose reconstruction report cannot be sent to DOL until this form is signed.

So, SC&A also noted that during the observed closed out interviews, the claimants indicated that they did not really understand all or much of the dose reconstruction process. NIOSH responded that they need to discuss appropriate working -- wording with the legal counsel before they can make changes. And the -- SC&A should provide them with, maybe, some suggested wording. So, again, the finding was placed in abeyance, and after the closeout procedure was revised and SC&A reviewed that revision and found it acceptable. The subcommittee closed the finding.

Now, the resolution to findings two, which includes a revision to PROC-92 applies pretty much to all of the same -- of the remaining findings, and the PROC was revised, and the subcommittee accepted that revision. So, I won't necessarily have to say that each and every time.

Finding three: Since signing the OCAS 1 form typically occurs as part of the closeout interview, this may create pressure on the ORAU staff to get

the signature prying to -- prior to ensuring that all of the claimant's concerns have been addressed. NIOSH indicated that they would -- they will incorporate changes into the procedure, which stops the clock on signing the OCAS 1 form until all of the claimant's questions have been answered. That was done, and the subcommittee closed the finding.

Finding four: The procedure does not ensure that the claimant is aware of all the information needed to complete the dose reconstruction prior to the closeout interview. This may cause -- oh, what happened there?

CHAIR ANDERSON: We're starting over.

MS. BEHLING: Okay. Why did it do that? Hold on. Where am? Sorry --

MEMBER BEACH: You're on --

MS. BEHLING: -- about that.

MEMBER BEACH: -- slide 47 or 48. Yeah.

MS. BEHLING: 48, all right. Let's see if I can... I don't want to start concurrence. There. Are you seeing that? Where did --

MEMBER BEACH: Yes, that's good.

MS. BEHLING: Okay. I think we're on finding four. I apologize. I don't know what happened there. Okay. I'll start again.

The procedure does not ensure that the claimant is aware of all the information needed to complete the dose reconstruction prior to the closeout interview. And this may cause the claimant to be reluctant to provide any additional data at this point in the process. So, NIOSH agreed and committed to modifying wording in the procedure. They also requested that SB&A provide them with some recommended wording changes. After these

changes were incorporated into the procedure, the subcommittee closed the finding.

Finding five, again, discusses the issue of the term HP reviewer and that this is misleading since these reviewers are not health physicists, and NIOSH stated that this was discussed under finding one, part five, and the title of this position will be changed. And based on that, the information -- the subcommittee closed the finding.

And finding six: The procedure does not require that an explanation be given to the claimant as to why specific information provided in the CATI was not used in the dose reconstruction. And again, this issue will be addressed under the previous finding three, and the procedure will be revised and was revised.

Finding seven: Technical questions are not answered in real time. And since a health physicist is not available in real time, it detracts from the process because the claimant cannot pursue a certain line of thinking. And this problem is compounded by the fact that claimants usually do not have all the relevant documentation before them. So, NIOSH stated that this issue will be addressed under finding two, and the procedure will be revised, and that was done.

Finding eight is similar to finding two and reiterates that the procedure has no provision for responding to complaints that the claimants had an -- understanding the dose reconstruction report. And, again, this will be addressed -- NIOSH indicated it will be addressed under finding two.

CHAIR ANDERSON: Any more?

MS. BEHLING: Finding nine: The claimant is not provided with an

understanding of information used in the dose reconstruction report. And NIOSH stated that some explanation for how the CATI information was used is in the DR process, will be provided at the closing interview stage, and that NIOSH will revise the procedure. And again, that was done, and this finding was closed by the subcommittee.

And that's summary of PROC-92.

MEMBER BEACH: Thank you. Any comments? discussion? questions?

CHAIR ANDERSON: We're going to run out of time, but a quick question. This is for NIOSH. These interviews have been one of the things that early on we -- we got concerns in the public comment periods about them. I think what's been done here is documents that there's been considerable revision in that. I'm just wondering from NIOSH, have -- have you done any kind of a follow-up evaluation or assessment by some of the interviewees to see if they're -- they're more comfortable now with the CATI process?

MR. CALHOUN: This is Grady. I -- I won't say that we have done an official assessment, but whenever we get comments from an interviewee, and it -- it happens, I guess, fairly often, we'll reconduct that interview with them. And the CATI is never done until the claimant says it is. So, we do a CATI. We send the results to them. If they have questions, comments on that, we recontact them. We'll rewrite the CATI until it is to their liking.

CHAIR ANDERSON: Okay. Great. Any of the Board Members receive comments about -- about this? Because this, of course, is something that's done with everybody, and I think it has undergone substantial improvement.

So, I'm glad to hear that that seems to be working, as well as we can

maybe expect. I mean, it is a complex set of data for individuals. Oftentimes it's -- if it's a family member that's being interviewed, it's an elderly person. And so, there's lots of impediments to understanding and being comfortable with it.

So, if there is, I think, we've done a good job here. And the -- just to close this out if nobody has any other comments or responses here. The procedures review committee has unanimously approved ORAUT-0092. All the comments have been responded to by NIOSH appropriately and, therefore, they're closing this review out. And the Board, if nobody is objecting, I haven't seen any or heard any, will unanimously approve closing out 0092's review.

MEMBER BEACH: All right. Thank you. And you're back on, Kathy.

MS. BEHLING: Okay. We're going to move on now, to PER-62, which was initiated as a result of changes introduced in revs. 1 and 2 of OTIB-52, which is the construction trade worker technical information bulletin. The PER was issued in November of 2017, and OTIB-52 develops a correction factors -- a correction factor of 1.4 that is applied to external dose when coexposure data is assigned to construction trade workers. And this correction factor accounts for the difference in exposure potential for the construction trade worker as opposed to the population of other site workers.

To establish the population of potentially impacted claims, NIOSH first identified a list of sites for which a coexposure model was developed using monitored site workers. And that list in the PER included 20 sites. Then the sites where NIOSH had planned to issue a site-specific PER were eliminated

from this PER because this issue would be addressed under the new -- newly issued site-specific PER. And this reduced the number of slides -- sites to eight, and from those eight sites NIOSH re-evaluated 1,006 cases.

So, under SC&A's subtasks one through three review, that was done in May of 2018 and identified two observations. And this review was prevented -- presented to the subcommittee at their February 2019 meeting. So, observation 1 the Albany Research Center was included in the list of sites for which a coexposure model was developed. However, SC&A could not find documentation for such a model or any PERs. And NIOSH did acknowledge that the Albany -- Albany Research Center should not have been included in that table. And so, based on that response, the subcommittee closed the finding.

And observation 2 is just more of a tracking issue where SC&A recommended that we should maintain a list of these sites, and we should be informed when the PER is issued and review the PER to determine if the selection of reworked cases will at -- adequately capture the potential construction trade workers. And the subcommittee agreed with that and closed the finding -- the observation. I'm sorry, I should have turned that. Okay.

So, on to subtask four. The case review was -- the one case that resulted in a reworked PFC at between 45 and 50 percent, and SC&A submitted its review of the case in December of 2021. So, since the PER addressed changes in external dose, SC&A only reviewed the external dose components of recorded photons -- photon dose, missed photon dose, unmonitored photon dose, and unmonitored electron dose. We compared

the original dose reconstruction doses to -- to those calculated in the rework, and as expected, the external doses did increase. SC&A was able to confirm that the doses were calculated correctly, and we were able to calculate a similar POC. So, we had no findings or observations.

And that summarizes PER-62.

MS. BEHLING: Well, you got the short one for the end.

MEMBER BEACH: No, there's one more --

MS. BEHLING: One more --

MEMBER BEACH: -- to go.

CHAIR ANDERSON: One more, I --

MEMBER BEACH: There's one more.

CHAIR ANDERSON: -- know.

MEMBER BEACH: There's one more, Andy.

CHAIR ANDERSON: This is a good one to sneak in there. So, any -- any questions or comments? If not, the procedures review subcommittee has unanimously approved the report here and forwarded it to us as a completion and hearing no objections, the Board will adopt unanimously closure of DCAS-PER-062's review. Thank you, Kathy. Next.

MS. BEHLING: Next, okay. PER- --

CHAIR ANDERSON: Yeah, right.

MS. BEHLING: Yeah, last. Finally, huh? PER-17, this PER was issued in September 2007, and it was the result of NIOSH identifying an inconsistency in the internal dosimetry records that were provided by Idaho National Labs, Argonne National Labs West, and Argonne -- Argonne National Labs East. When the DOE provides dosimetry records, they include

a cover page that's known as the OCAS-INT-004 form. And this form has header -- headings for external dosimetry, internal dosimetry, diagnostic records, incidents, and other monitoring. And underneath each one of those headings, there is a check box for -- that this data was either provided, not readily available, or it does not exist. And so, that's -- it's the -- DOE is supposed to check one of those.

NIOSH noticed that on some of these forms there was handwritten notation next to the internal dosimetry heading that stated no recordable dose or in some cases, from one of the facilities, no internal dose. So, when NIOSH questioned the sites about this, it was determined that the notation meant that the EE may have been monitored, but no internal dose was assigned.

So, therefore, NIOSH identified cases that were impacted based on this notation using the following criteria: The form was marked as internal dosimetry records provided with or without this handwritten note. The form was marked as internal dosimetry records not readily available with or without a handwritten note, or the form had no markings or no note -- or no notations. This resulted in NIOSH requesting internal dosimetry records for 223 cases.

And a response was received for each of the requests, and the internal dose data were received for 62 cases for I -- from Idaho, 14 from A&L West, and 6 from A&L East for a total of 83 cases. So, SC&A's review of PER-17 subtasks one through three was submitted in May of 2012, and we had no findings or observations, and the review was presented at the July 31, 2012, SPR meeting.

So, for PER-17 subtask four, there were six -- we -- we request or requested six reworked cases, three from I&L, two from A&L West, and one from A&L East. SC&A submitted its subtask four report in April of 2013, and this report evaluated only in -- the internal dose pathway. So, for Case A, which was from I&L, the original -- we always compare the original to the reworked, and the original internal dose was calculated using a maximizing hypothetical internal intake of 28 radionuclides, and this is specified under OTIB-2, which is no longer an active OTIB, as an efficiency measure.

The reworked evaluated a single whole-body count that the DOE provided for this case, and since the whole-body count results were less than the limits of detection, NIOSH calculated dose using an overestimating method that's described in OTIB-18. OTIB-18 is titled "Internal Dose Estimates for Facilities with Air Sampling Programs," which -- and this OTIB calculates dose using limiting air concentrations. So, internal doses decreased by 90 percent due to the maximizing assumptions of OTIB-2 for this case, and SC&A was able to confirm that the reworked doses were calculated correctly, and we had no findings or observations.

Case B, the original dose reconstruction also used the maximum hypothetical intake model from OTIB-2 since it was assumed that there were no internal dose records and the case was not compensable. For the rework, there was only one whole-body count that was submitted by -- returned by the DOL, and the results were less than LOD. So, in this case, NIOSH decided to use the OTIB-2 approach, and so the internal doses did not change for this case. SC&A confirmed that the doses were calculated correctly, and we had no findings or observations for Case B.

So, the last case for the INL facility, the original dose reconstruction for this case, NIOSH decided to calculate internal doses using environmental exposures. For Case C, the DOE provided several urine sample results and whole-body count data. All these results were below minimum detectable activity. Since the urine samples were assessed for gross beta and gamma, NIOSH calculated missed internal dose using one-half the gross beta urine sample for the period that coincided with the monitoring, same for the gross gamma, one-half of the urine sample for that period, and one-half the LOD values for the whole-body counts.

Recalculated internal doses alone were sufficient to consider this dose reconstruction complete. In other words, the individual would be compensated just on the internal doses. So, SC&A confirmed NIOSH's dose calculations, that they were correct, and we had no findings or observations.

Case D, again, the original was done as an efficiency measure using the maximum hypothetical internal intake of 28 radionuclides. The new bioassay data provided by DOE indicated that the EE submitted a urine sample and several whole-body counts. All of these results were less than minimum detectable activity; therefore, NIOSH calculated missed internal dose based on one-half the LOD value for Cesium-137 for the whole-body count and assumed a chronic intake over the entire employment period.

Doses for Strontium-90, Plutonium-239, and Cerium-144 were derived using ratios from the Argonne National Lab's West TBD. And type super S plutonium was assumed also. This resulted in a calculated internal dose that was only 14 percent less than the original hypothetical internal dose. And SC&A confirmed that the doses were calculated correctly, and we had no

findings or observations.

Case C, again, from Argonne National Lab's West, the original dose reconstruction was calculated using environmental exposure for the internal dose. The DOE did provide several whole-body counts that were assessed by NIOSH. All results were less than the minimum detectable activity. And as an efficiency measure, NIOSH calculated the -- this internal dose using the limiting air concentrations from OTIB-18 rather than from using the whole-body count data. The recalculated internal doses increased by 66 percent for the first cancer and 34 percent for the second. SC&A confirmed that the doses were calculated correctly, and we had no findings or observations.

I'm getting there. And my apologies on this slide. This remains -- the remaining slides should all indicate that this is a case from Argonne National Lab's East, not West. The original dose reconstruction was performed using the OTIB-18 limiting air concentrations. The rework, DOE records show that the EE submitted several urine samples, and these samples were analyzed for gross beta, gross alpha, and uranium.

So, all of the gross beta and gamma results were less than minimum detectable activity values. And the dose was calculated using OTIB-54. And OTIB-54 is fission and activation product assignment for internal dose related gross beta and gross gamma analysis. And they assumed a chronic exposure of cerium -- Strontium-90 type F for the entire employment period. For the gross alpha results, everything -- all the results were less than MDA values, and so missed dose was calculated -- calculated assuming a chronic intake of type M Plutonium-239, which is based on one-half of the MDA

throughout the employment. And a chronic intake of associate radionuclides was calculated based on ratios from the ANL EAST TBD.

For uranium, urine results were all -- were less than MDA except for one, so NIOSH calculated both a missed and a fitted dose. The missed -- missed dose was based on chronic exposure to U-234 at one-half the MDA level during the appropriate monitoring period. And the fitted, or positive, uranium dose was calculated -- calculated assuming an acute intake of U-234 type S on the date of the bioassay; however, this resulted in a dose of less than one millirem, so it was not included. In addition, internal environmental dose was derived using on-site ambient dose values from the ANL EAST TBD.

Okay. So, SC&A's review of this case, the recalculated internal doses decreased by 97 percent, and this was due to the original DR -- DR using the conservative limiting air concentrations to calculate the internal dose. SC&A found NIOSH's assumptions and approach to reassessing internal doses to be reasonable. NIOSH appropriately applied guidance in OTIB-54 and the ANL EAST TBD. So, all doses were correctly entered into IREP, and so SC&A had no findings or observations for Case F.

This is the final case review for PER-17. However, I'll -- I just wanted to make mention that we -- before we move on to discussion of PER, it struck me when I was reviewing these cases the differences in how NIOSH chose to calculate the missed internal dose when records were and were not available. So, in some cases, they used the OTIB-2, the maximum -- maximum hypothetical intake model. In some cases, they used OTIB-18, the limiting air concentrations. And in some cases, they used environmental

exposure. Now, these are all issues of professional judgment, and the Board is trying to assess under the dose reconstruction reviews methods work group with the help of the procedure subcommittee -- so, it seems as if a closer review of these cases, in light of the professional judgment decisions, could also benefit the work group. So, I'll -- I just make mention of that. I think we're always looking for ways of assessing professional judgments, and I think this gives us an opportunity to help that work group if we look at these cases a little closer.

Okay. With that said, you don't have to listen to me anymore.

MEMBER BEACH: Thanks, Kathy. Hey, I think that was a good suggestion. I think we should bring it up at our next subcommittee meeting for discussion.

MS. BEHLING: Okay.

MEMBER BEACH: If the --

CHAIR ANDERSON: Question --

MEMBER BEACH: -- subcommittee --

CHAIR ANDERSON: A question – yeah -- I would have is, is there any notes in the record indicating why they chose which one? I mean, you found that they did it. They calculated it correctly, but was it --

MS. BEHLING: Right. You know, I didn't think about this until my preparation. And quite, honestly, I think for a lot -- most of the cases were probably earlier cases the 2005, '6, '7 time frame. And that's when, I know, NIOSH was trying to -- to do dose reconstructions, especially for cases that they felt they could use these efficiency measures, and the case still would not be compensated. So, perhaps, I think, in many cases, that's why the

original used the OTIB-2 methodology. I just did notice that in some cases, they used the environmental dose. So, I didn't look to that level of detail yet, but I thought it would be interesting to do so and see if we can make any judgments on the consistency or lack of consistency of professional judgment issues on the -- for the internal dose.

MEMBER BEACH: And I just --

CHAIR ANDERSON: And I would -- I would assume that they had a reason for why they did that, and if they wrote it down, it would be nice to know. I -- it wouldn't occur to me that it would be a random selection if they -- you know, there might have been better --

MEMBER ZIEMER: I wonder -- I'm wondering if Tim Taulbee might be able to comment on that. This goes back quite a ways, so.

CHAIR ANDERSON: Yeah.

DR. TAULBEE: Hi. Thanks, Dr. Ziemer. You've got to keep in mind that, you know, early on we were really trying to process claims as fast as we could at the time, and so we did do a lot of, what we would call today, gross overestimates. And as time progressed, we got more tools, we got more TIBS, more methods were added to our toolbox in order to do these dose reconstructions, and -- and so our -- our process got refined. And in addition, we implemented things such as, you know, when a claim is nearing the 50 percent mark, between 45 and 52 percent, we do best estimates now.

So, these are all progressions that have happened over time. And this is PER-17, so this was one of the first ones that we looked at. And so, you're going to see some of this variability there that I don't believe you'll be

seeing today if you look across our dose reconstructions.

CHAIR ANDERSON: Thanks, Tim. Other comments or questions?

MEMBER CLAWSON: Yeah. Andy, this is just Brad. Being part of the dose reconstruction, I have to agree with what Tim has said. We have requested of NIOSH when these judgments are made that there is -- and there's a difference in it, that they notate why they have done that. And we've started to see more and more of those come in. We're not seeing it as often as what we used to with the earlier cases, but they are trying to also make notations in there of why they did what they did when they were using professional judgment.

CHAIR ANDERSON: Great. Thanks.

MEMBER BEACH: I think, Andy -- this is Josie -- on that, if we did decide in the subcommittee to go back and look at these earlier ones, we might be able to see the progress, as Tim pointed out, that's being made as well. So, we'll -- we'll have to take that forward and discuss it within the subcommittee.

CHAIR ANDERSON: Good.

MEMBER CLAWSON: Josie, I -- Josie, I think that's a very good -- because we're always trying to put markers into this to make sure that -- that we're seeing a change in what -- how we're doing it and so forth. I think that'd be very beneficial to the Board for us to be able to see that. So, I think that would be a great idea.

MEMBER BEACH: Right. Okay. And then the --

CHAIR ANDERSON: Other questions? comments?

MEMBER BEACH: Yeah, and we've agreed to do that. So, I'll let you

finish, then I have one more question for Kathy.

CHAIR ANDERSON: Go ahead.

MEMBER BEACH: Okay. Kathy, I was just wondering, just off the top of your head -- and if you don't know that's fine -- what percentage do you think we are completed on our backlog? Just a ballpark.

MS. BEHLING: I would say at least 50 percent to 60 percent.

MEMBER BEACH: Okay. That's kind of where I was at too, but.

MS. BEHLING: Yes.

MEMBER BEACH: Thank you. Go ahead, Andy.

CHAIR ANDERSON: Okay. There's no comments or objections. That was very interesting to -- to go through and see. And again, the professional judgment issue, I -- I think there -- you know, there's reasoning behind professional judgment, so I think that the more we can get that, the better off. It's easier to say this is all well and good. So, with that, the procedures review subcommittee has unanimously approved closing out OCAS-PER-017. If there's no objections and it was unanimous from the review committee, the Board is going to unanimously accept the recommendation to close out OCAS-PER-017's review.

MEMBER BEACH: With a great gratitude to Kathy for putting this together and -- and going through all of these. I know they're a bit tedious, but we appreciate you doing it.

CHAIR ANDERSON: Well, --

MS. BEHLING: It's my pleasure. I appreciate everyone's attention for all this time.

CHAIR ANDERSON: I think it's important for all -- I mean, this is all

the act -- I mean, you're reviewing all the activities that are kind of going behind the scenes at dose reconstruction. And the complexity and the breadth of that, I think, is important for all Board Members to appreciate, as well as why it's important to review these, because recommendations out of new eyes looking at it can occur that improve the system. And that's what we really want to do, not have it be a static in-place activity, but actually, moving forward as we get greater experience in doing these at NIOSH. And now with new staff hired or moving around at NIOSH and Board Members being new, I think it's important to keep up this activity. So, you're undone backlog of -- was 60 percent, we're going to commit to working through those. So, thanks a lot. As long as you're willing to stick with it, Kathy.

MS. BEHLING: Will do. Thank you.

CHAIR ANDERSON: Any other questions or comments before we close out this part of the Board meeting.

MEMBER VALERIO: This is Loretta. I have a comment.

CHAIR ANDERSON: Sure. Go ahead.

MEMBER VALERIO: So, I just wanted to say thank you to Josie as the chair of this committee and to Kathy, because it is a lot of work and being fairly new to this subcommittee, I appreciate all the work, all the attention, and especially to Kathy for putting together this presentation, because it really helps the entire Board with understanding where we are. So, again, thank you for everything.

MS. BEHLING: Yeah, my pleasure. I'm glad I could share this information. Hopefully make it understandable for everyone. Understand how -- how hard the subcommittee is working to get through

these procedures.

CHAIR ANDERSON: Okay. Well, it's -- keep at it, and every Board meeting, we'll have more to review and close out.

So, next up, I think we have a half hour break here for some who want to get lunch, and then later in the day, we'll have another 15 minutes for the West Coasters to grab something quick. So, -- so with that, if we have nothing else, we'll stand adjourned until 1:00 p.m. Eastern.

MEMBER BEACH: Great. Thank you.

CHAIR ANDERSON: Well, we could go 1:15 p.m., maybe. We're running a little late I see on my clock here, so 1:15 p.m. we'll be back for the SEC position status update.

MEMBER BEACH: I think that's taking us backwards. We were supposed to be back at 1:00, right, and the SEC's -- anyway.

CHAIR ANDERSON: Well, I mean, is -- is people comfortable coming back in 15 minutes or 20 minutes? Nobody's objecting, so we'll be back at 1:00 then.

(Whereupon, a break was taken from 12:39 p.m. until 1:00 p.m.)

DR. ROBERTS: -- Anderson?

CHAIR ANDERSON: It shouldn't be on our property.

DR. ROBERTS: Excuse me?

CHAIR ANDERSON: I'm here. I got another call that came in, so go ahead. I'm good. I'm on.

DR. ROBERTS: Okay. So, you're on, Anderson. Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: Clawson?

MEMBER CLAWSON: I'm here.

DR. ROBERTS: Frank?

MEMBER FRANK: Here.

DR. ROBERTS: Lockey?

MEMBER LOCKEY: Here.

DR. ROBERTS: Okay. Martinez has disconnected, and she'll be back around 3:30, I believe. Pompa? Pompa, are you back? Valerio?

MEMBER VALERIO: I'm here.

MEMBER ZIEMER: And Ziemer?

MEMBER ZIEMER: I'm here.

DR. ROBERTS: Okay. We do have a quorum, and so we can proceed. So, over to you, Andy.

MEMBER BEACH: I think he said he had another call, so.

DR. ROBERTS: And then we'll just pause.

CHAIR ANDERSON: I'm sorry, I'm back.

DR. ROBERTS: Okay. Great. Over to you.

CHAIR ANDERSON: We're ready to go, Charles.

MR. NELSON: Okay. Dr. Anderson, I'll go ahead and get started with the SEC update. Can everybody see my screen? I kind of struggled with it a little bit. It was jumping from one screen to another, so.

MEMBER BEACH: Yeah, Chuck. It looks good.

SPECIAL EXPOSURE COHORT PETITION STATUS UPDATES

MR. NELSON: Okay. Good. I'll go ahead and get started then. I will be doing the special exposure cohort petition update. My name is Charles

Nelson. I am the DCAS SEC team lead. Wearing two hats right now. I'm also the health physicist supervisor, so currently getting a turnover from LaVon on that. So, let's get started right here.

Okay. So, we do this update at every Advisory Board meeting with the purpose of updating our petitioners, the general public, and the Advisory -- Advisory Board on where we are with SEC petitions. So, in this update, we'll let you know how many SEC petitions we have in qualification, and for those that do qualify, how many are under review for evaluation by DCAS, and how many petitions that are currently with the Advisory Board for review, and finally any potential NIOSH-initiated SEC petitions, and those are 83.14s.

So, let's go over some statistics here, some numbers. To date, we have received 264 SEC petitions in total. We currently have no petitions in the review process to determine if they qualify for further evaluation. To date, there have been 153 petitions that did qualify for further evaluation. Currently, there are no new petitions in the evaluation process. All 153 SEC petitions that qualified for further evaluation have an evaluation report completed by DCAS and have been presented to the Board. As of right now, we have nine evaluations with the Advisory Board undergoing review and evaluation. Oh, I skipped forward, didn't I? Sorry about that. And to date, we have 111 petitions that did not qualify for further evaluation. Sorry about that skipping on me.

Okay. So, first up, petitions under evaluation. We have Lawrence Livermore National Lab for the period of 1990 through 1995, and this is an evaluation report addendum to address the remaining years for all

employees from 1990 to 1995. And later today -- it jumped on me again -- later today we'll be doing -- we'll be presenting -- NIOSH will be presenting an addendum to the Lawrence Livermore.

Okay. Next up, Hanford SEC-57. These are all evaluations at the Advisory Board currently. So, for Hanford SEC-57, all SEC issues are closed except those related to ongoing internal coexposure modeling. So, that work is underway. Brad had mentioned earlier when DOE was -- DOE was doing their presentation that, you know, we were waiting on some data requests. We did receive word that we're able to do data captures now at Hanford. So, in the meantime what we did is, we put together all our monitoring completeness data together, ORAU, did, and they're submitting that to us for review. So, if there are any additional data captures or when those should occur -- I don't know why this thing is jumping around -- we will let the work group know so they can accompany us in the data captures.

Okay. Next up is Savannah River SEC-103. There was a work group meeting on 9/25/24, and the results of the work group meeting will be discussed at this Advisory Board meeting. So, that'll be on the agenda, I believe, after this.

Next up is Los Alamos National Lab, that's SEC-109. In total we provided four reports and two memos in response to an -- observations raised by SC&A and the Lawrence Livermore -- Lawrence let me say it differently -- Los Alamos National Lab work group. So, the reports that we submitted were reports 100, 101 -- I'm not sure why this thing's jumping. I apologize for that -- 101, 102, 103, and 107. Two memos that we did submit were weight of evidence memos provided to the work group on

8/28/23 and there was also an RWP analysis provided on 3/25/24. NIOSH is currently working on responding to some remaining issues on internal dose with the Lawrence Livermore SEC-109 addendum period, which is '96 to 2000.

I'm trying to see if there's a reason this thing is jumping, but I don't see anything on the keyboard, so --

CHAIR ANDERSON: It could be -- maybe you got it on a timer.

MR. NELSON: I'm wondering -- I don't -- I'm not sure. I want to try to use the keyboard to advance this and see if that helps. It's not working that way, so let me keep working through this then.

Next up is Idaho National Lab SEC-219. NIOSH is currently responding to findings and observations raised by SC&A and the work group during their review of the ER. So, we're reviewing documents received from data captures and preparing responses to the questions related to the burial grounds for the time period of 1952 through 1970. There it goes again. NIOSH is working on Report 100, and that reviews the remainder of the high-priority reactors with respect to the application of OTIB-54 for dose reconstructions.

Next up we have Argonne National Lab West, which is SEC-224. And again, we're responding to findings and observations. We have an ORAU Report 89, so that's evaluation of issues related to general area air sampling, and that document was sent to the work group in June of '22. And back in August of '24, NIOSH presented Report 89. We're -- we are available and prepared to discuss Report 89 with INL/ANL work group whenever that is set up.

Next up is Area IV, Santa Susana Field Laboratory. This is SEC-235, and we're working on providing clarifications to remaining issues. As you may remember, the EMCBC records center that's here in Cincinnati, they have been digitize -- digitizing records and sending those to us. And they have finally completed their transfer of records to us, so there are thousands of documents they sent over to us, and we're in the process of uploading those into our site research database and all the while looking at those documents and seeing if any of them are pertinent and relevant to where we can address the remaining issues.

Next up is DeSoto SEC-246. Exact same issues there. EMCBC completed their record transfer, and we're reviewing documents in the numbers of the thousands to see which of those can help us deal with the outstanding issues.

Next up is Y-12, that's SEC-250. There was an addendum to the evaluation report, and it was presented in August '21. And SC&A was -- performed -- to assign -- was assigned to perform a review of that evaluation report.

Next up is Pinellas SEC-256. We presented the evaluation report in December of '21, and we're at this point, waiting on the Pinellas work group to schedule a work group meeting.

Okay. So, the following are sites with evaluation periods awaiting action. We have Hanford SEC-57 from '84 to '90, and that's related to pine -- prime contractors. We have SEC-103 for Savannah River. That's for 1972 to 2007 for prime contractors. And again, SEC-103, 1991 through 2007 for subcontractors.

Also sites with evaluation periods awaiting action include Los Alamos National Lab SEC-109 from '96 to 2005; Idaho National Lab SEC-219 from 1949 to 1970; and Argonne National Lab West, that's SEC-224 from 1958 to 1979. We have Area IV Santa Susana SEC-235, and that time period is 1991 to 1993. And again, we have DeSoto Avenue Facility SEC-246 from '65 to '95; Y-12 SEC-250 from 1979 to 1994; and finally, Pinellas Plant SEC-256 from '57 to 1990.

Also in the works, we have a potential 83.14 we're working on for a West Valley demonstration project. I think we're getting a little closer on that. And that's for the time period of 1966 to 1968.

And that is all I have for this SEC presentation, if There are any questions.

CHAIR ANDERSON: Any questions?

MEMBER BEACH: I have some questions, but I don't know if this is appropriate to ask now or during our board work session on different things that are happening at some of the different sites, like INL, for example. We have a burial ground paper from '52 to 1970. And when I read the report from DCAS, it said that this was a lower priority to the TBD being updated. Is that correct, or did I read that wrong?

MR. NELSON: I believe you read -- you read that correctly. I don't know if Megan's on, and she can address it. I mean, I can talk about it if she's not handy and available.

MEMBER BEACH: Yeah, I guess I was just wondering why the SEC issue would be a lower priority than the TBD.

MR. NELSON: Basically, what they're doing is they're trying to get the

TBD updated for the latest SEC so that they can work on claims. So, it's still a priority, but that's where it sits. So, the priority is getting those site profiles updated.

MEMBER BEACH: Okay. And I'm understanding that was -- oh, there was another site, but I didn't drop the -- which one it was. So, okay. So, that's what's happening?

MR. NELSON: Yes.

MEMBER BEACH: Okay. Thank you.

MEMBER CLAWSON: Chuck, this is -- this is Brad. I know that we kind of went over this in an email, but I wanted to, you know, go over this with the data capture, especially with Hanford. When -- like you did say, if you'll keep me in the loop on that, I would like to be a part of that data capture as we go up in there, which you have, and I appreciate it.

But I also have a comment for -- you know, there's a lot of changes going on in NIOSH. There's a lot of people that are changing positions and so forth, and usually, we -- we get an up-to-date notification of who's over what, what their new position is. It -- it would be kind of nice to be able to have -- kind of have a phone list of who's covering what. And I know this is more for Brant and Grady and Tim and all of them, but just so we know that -- who to reach out to -- to have some of these clarifying questions that -- that we're dealing with gone through. So, if you guys could, kind of work on that. I know we have to do the same as a Board of who's going to be over what work groups and so forth like that. But if we could get an updated list for NIOSH, I would -- points of contact for things, I would greatly appreciate it.

MR. NELSON: We're definitely going to do that, Brad. I got a note written down there with a star next to it saying we would do that. Brant mentioned it in a text message that says something that we need to do, so we're going to get on that --

MEMBER CLAWSON: Okay.

MR. NELSON: -- for you all.

MEMBER CLAWSON: Sounds good. Appreciate it. Thank you.

CHAIR ANDERSON: Other questions? Your slides were continuing to cycle jump.

MR. NELSON: Yeah, I don't know what happened with that --

CHAIR ANDERSON: Yeah, yeah, yeah, I know. Okay.

MR. NELSON: It was weird, because I shared screen, and it jumped over to my other screen. So, then I'm looking both places. And I apologize for that. I'm used to using Teams, and this seems a little different. I'll polish that for next time.

CHAIR ANDERSON: Okay. If there's no other questions, let's move on. Brad, Savannah River Site update.

SAVANNAH RIVER SITE UPDATE

MEMBER CLAWSON: Okay. I've -- we've got a couple presentations that are gonna -- what we're doing is bringing this before the Board right now. We've -- as everybody knows, this has been quite a -- an interesting and -- process that we've been going through. We've been looking -- we've got the SEC up to the 1990s, and we're looking up for the cutoff date that we were looking at, and we've been discussing that. But we had a work

group here a while back, and we're going to have -- NIOSH is going to give a presentation, kind of give you -- the full Board a little bit of background of where they're at. Then we're going to have SC&A give their presentation, and then I'll proceed with what the Board Members have -- that's on this work group have presented of a possibility of a time frame.

And with that being said, I'll turn it over to John Cardarelli, and he's got a presentation that he wants to bring. And then, I believe, it's Bob Barton will give the presentation for SC&A. So, John, I'll turn that over to you.

DR. CARDARELLI: All right. thanks Brad I appreciate that. I'm going to share my screen here. Hopefully, it will pop up the way it's supposed to. Share. Okay. Can everyone see the screen?

MEMBER CLAWSON: Now, we can.

DR. CARDARELLI: Okay. Excellent. All right. Today's presentation is really a brief summary of two presentations I gave back in September of the Savannah River working group. They were quite lengthy presentations, but today's only like 20 slides, and it's a brief summary. And I know we have brand new Board Members, so there's going to be quite a bit of history here that you may not have with you, but we'll talk about that at the end of this presentation, because I want to make sure that the full history is -- is -- is as well understood as it possibly can be.

I want to acknowledge my co-presenters here Zach Tribbett and Nhung Nguyen and Nancy Chalmers from ORAU. They were pretty much the chief scientists behind some of the actual data crunching that you will see in the summary results from. The primary purposes of those two presentations

I gave were determine -- were, basically, to determine if NIOSH could estimate doses to subcontractor construction trade workers with sufficient accuracy for compensation purposes between the time period 1991 to nine -- 2007. That's where most of our data ended, because that's when the original petition was submitted.

The other reason was the work -- we wanted to provide some background as to the work that NIOSH did to justify the conclusion that we came to. What I won't be addressing is any issues associated with the recent SEC designation from 1972 to 1990, but I do refer the viewers and interested Board Members to review the NIOSH and DCAS positions that are already in the record for that.

So, today's overview will be to address the intent of a report, which we have numbered 92, and I'll give the title of that in the next slide; the purpose of the job-specific sampling during the 1990s; the SRS self-assessment, which was done in 1997 of the job-specific bioassays; and the purpose and use of the TRACK database. TRACK is in old capital letters. It is not an acronym. It's really simply a tracking database; and the other one is the comparison of the subcontractor construction trade workers to other SRS workers. And finally, I'll wrap it up with brief conclusions from those two presentations.

So, the very first item on the overview was the intent of Report 92. And that report was titled :Evaluation of Bioassay Data for Subcontracted Construction Trade Workers at the Savannah River Site." The -- this report was actually released and published in 2019 and will, basically, stem the base -- the foundation for much of the work that we have done.

So, what was the intent of this Report 92? It was to determine the representativeness of the subcontractor construction trade workers' data relative to others. And really what do we mean by representativeness? It's simply asking the question did unmonitored workers work in the same environment as monitored workers. That is a key question and a key component to developing a coexposure model, which allows us to estimate worker exposures. So, even if you're unmonitored, if you worked in the same environment as those who were monitored, we could estimate your dose with sufficient accuracy using a coexposure model. So, representativeness is very important to that concept.

What Report 92 demonstrated was that subcontractor construction trade workers did work alongside the monitored subcontractor construction trade workers. So, subcontractor construction trade workers were actually monitored, but some were not, and they did work alongside each other. This was supported by radiation work permits coupled with bioassay data. The unmonitored workers were represented by monitored workers. That was the conclusion of that particular report. And then we concluded that there is sufficient data to reconstruct doses using a coexposure model.

The second part was the purpose of job-specific sampling during the 1990s. So, what is job-specific bioassay sampling? The purpose, and this comes from a corrective action report published in 1997, where the purpose of the job-specific bioassay sampling program is to collect bioassay samples from workers whose routine bioassay program does not include some or all of the radionuclides present at the work site or who are not on a routine program. For example, a mechanic who may be routinely sampled for

plutonium and enriched uranium may be assigned to the work on a neptunium system. So, a job-specific bioassay sample for neptunium would be required to be submitted at the end of the task; therefore -- and this is in quotes -- nonroutine sample in this context is a, quote, job-specific sample. These samples were used to supplement the routine requirements in the bioassay monitoring program at the Savannah River Site.

Another quote which I think helps bring -- answers to questions why did they even put this together in the first place, why did they develop a job-specific bioassay program, this comes from another correction -- corrective action report, and it says -- states, quote, Job-specific sampling has been implemented because currently there is not a way of modifying the prospective bioassay program and RQB, or radiological qualification badge, in the field. A worker must come to the IVC, the in vivo counting facility, to have the bioassay program and RQB modified. This is an inefficient use of time and thus, the current job-specific sampling program was created.

Another quote worth noting is: A routine bioassay program can be established after the fact, based on where the individual actually worked and what he or she actually did. This is referred to as retrospective sampling. Both are part of a routine monitoring program.

This particular slide tries to bring the concept in -- in a more linear fashion for the viewers. The top row is prospective sampling and it's routine sampling where you have a worker who we know in advance where they're likely going to work. In -- in that process they wear a radiological qualification badge, which says this worker we know they're going to be working in plutonium, we know they're going to be working for -- enriched

uranium, and then they go and perform the work in the areas where those two radionuclides are commonly associated with that work process. In the process of doing their work, nothing unusual happened. It was the normal operations. And then at some point throughout the year, not right after this job, but during the routine process -- and sometimes it was once a year, sometimes these were done according to their birth month, things of that nature, they would leave a routine urine sample. And that occurred 95 percent of the time at the site in most areas.

And the retrospective sampling in this context is entitled nonroutine, but it's actually part of an overall routine program because it's retrospective sampling. This worker was working in a neptunium area, but it was not on their RQB. And instead of them leaving the area, perhaps delaying that work for days to go in to perform the work. They go in and perform the work and normal operations occur. And then the worker, because it's not on their RQB, leaves a job-specific bioassay. Nothing unusual happened. It's a job-specific bioassay. And these occur about 5 percent of the time. Really, it's a catch-all effort for these unique situations, which would have introduced an inefficiency in the work being performed at the site.

So, health assessments of job-specific bioassays in the 1997 year. This is a very important slide, probably the most important one of this entire presentation in my humble opinion. And so, I want to spend a little time on this where we can identify certain aspects. I'm going to try something I haven't done here with -- by bringing in a laser pointer. The first thing I want to note is in quarter two, this is just a three-month period in 1997, the SRS did a self-assessment of job-specific bioassay program. And really, the

thing that caused the self-assessment was an issue that was found at the Mound processing facility in Dayton, Ohio several months earlier. And then the DOE headquarters said, you know, everyone go look -- look, make sure you're not having similar problems with participation in bioassay programs.

So, the SRS did a self-assessment. In the second quarter, they found these results. Keep in mind that 95 percent were routine samples with a 100 percent compliance. So, everyone who was on a routine sampling program all left the bioassay as expected. Then we had 5 percent of the workers who are part of the job-specific bioassay program. Only 1 percent of them in the second quarter of 1997 left a bioassay as prescribed according to the procedures; however, 3.95 percent of them failed to provide a bioassay sample. And there are -- the root cause analysis provides examples -- justifiable examples and understandable examples as to why they would not have left a bioassay sample.

Each one of these areas, this part of the pie chart, the green and the red that you might see here, they are not specific to a unique type of worker. They contain subcontractor construction trade workers, construction trade workers, and any other worker at the site. So, this as a combination of each pie chart does not represent a particular group of worker. This only represents those who were on a routine and then those who left a job specific or who did not in the second quarter.

This represents -- and you will see this number in the future -- a 79 percent is this rent period of the 5 percent did not leave samples according to their procedures. We've estimated this is equivalent to about 256 workers, and in the conclusions you will soon see that all of those 256

workers were followed up on the following year with a bioassay, and none had any upticks. So, it's important that we understand when we start talking about the 1997 assessment and this value of 79 percent, it's really only about a 3 to 4 percent of the population of sampling in that particular quarter. So, I wanted to bring that out.

This also doesn't mean that these job specific samples are representative of the highest exposed workers. Now, why would I say that? It's an important component. Goes to the coexposure modeling. None of these workers are assumed to have been potentially exposed to some elevated level. They're simply part of a routine monitoring. And the reason is all of the operations that were done as a result of these samples were normal. No unusual activities occurred. So, there's no reason to believe that any of them would have been exposed. This was part of the overall process of protecting workers.

Okay. So, during the full calendar year assessment in 1997, putting this in context, there was about almost -- there was 10,889 bioassay samples that were requested in 1997. By the end of 1997, the Westinghouse Savannah River Company had compared all of the 1997 radiation work permits and sign-in sheets to the bioassay laboratory sample database and determined that these 256 individuals did not comply with the job specific bioassay requirements. And what I mean, by requirements, I mean, the procedures. So, Westinghouse Savannah River Company subsequently directed those individuals still employed at the site to submit bioassay samples. So, none of these workers were later identified of having any uptake of radioactive material.

Now, the ones who didn't, I believe, is , like, maybe one or two workers had already left the site, and we did -- we were unable to get those particular workers. So, 256 were monitored, maybe one or two left the site before that could have been done, and this is out of almost 11,000 bioassay samples collected during the entire year, not just that quarter.

So, the purpose and use of the TRACK database -- so, the purpose of the TRACK database was created to track samples related to an abnormal situation that may cause a potential uptake. This is the situation where might represent workers were involved in some incident, so these would become the workers with the highest potential for exposure. So, when you have to leave a special, something caused that action to occur.

So, in prospective sampling, bottom of the screen here, we have that worker who knows the work -- who has worked in a plutonium enriched uranium area at the site. It's on their RQB as normal procedures would call for, but during the work, something abnormal happened. It could be vacuum leaks, a tear in the PPE. It could be a cam alarm, a continuous air monitoring alarm goes off. Now, the health physics staff feels that something's unusual, and they ask for a special sample to be performed. A variety of reasons why this abnormal operation could occur.

What this means is that they go into a TRACK database because these are the potentially exposed workers because they're in the -- something occurred, where something is likely to potentially be inhaled and cause a dose. Hence, a special bioassay is requested and left. So, what data are included in the TRACK database? This becomes important a little bit later. So, we have that worker, it's radiation -- nonradiological qualification badge,

normal operations, they leave a routine sample, and that routine sample can come back positive or most of the time, it comes back negative. If it's positive, we have things called follow-up bioassays that are done. But this is a routine sample, so it does not go into the TRACK database. And the reason for that is normal operations.

The TRACK database only tracks abnormal situations, which you see here. Potentially exposed people go into the TRACK database as a result of a special bioassay. Now, that special bioassay can come back as a positive and a negative. So, simply because you leave a special does not mean that your bioassay result will come back with a positive result. So, you can have positive or negative results inside the TRACK database itself.

So, another aspect of the knowledge that the TRACK database would potentially be a cohort of workers with the highest potential for exposure, that's important for the development of a coexposure model if we want to estimate what worker exposures are going to be. We want to make sure that these data are part of that model when we estimate exposures as part of a claimant favorable and also a sufficiently accurate dose estimate. We certainly don't want to be excluding these potential bioassay results in a coexposure model.

So, workers who experience some abnormal operation during their work shift that call for special bioassay are the potentially exposed. And workers with bio -- positive bioassay results from either the routine, the job specific, or specials, they represent the highest exposed workforce. And that's what would be used in development of a coexposure model.

So, now we want to compare the subcontractor construction trade

workers to all other SRS workers. So, what -- what we want to understand and what we're trying to determine is if subcontractor construction trade workers were among the most highly exposed workers at SRS between 1991 and 2007. That is something that has been discussed historically all the way back to 2017, but now we're focused on '91 to 2007 with regard to the time period for these workers most highly exposed.

So, March of 2023, the SRS workgroup meeting, the request was made that SC&A compared bioassay results from the subcontractor construction trade workers to bioassay data from all workers to determine whether the subs' exposures tended to fall into the upper end of the results for all workers. Basically, the question are subs more likely to be exposed or do they have higher exposure potentials than any other worker. NIOSH independently performed a similar assessment, and those results were presented back in September.

Before I show an example of the result, for the new Board Members and for all others and the viewers, it's a new type of -- way of presenting data, so I wanted to take a moment or two to describe this. It's really -- you will see a scatter plot with what we call a jitter example. And this example on the left, we have an exposure number. And here is -- a sample is number five. Say someone left a bioassay result, and the result was five. And that has a particular year associated with it, but there are 500 results. If that was the case in a normal graph, it would represent itself as one dot, and you would not pick up on the subtleties that it represents 500 results.

So, what we did is introduce a jitter. We reintroduced a width, and then we randomly applied each of these 500 results between that jitter

depth, which is a subjective width. That there's nothing magical about the width. It's just we need to present a lot of data on a single chart. So, the one on the right represents what we call our jitter scatter plot. It's one number of five for the year 1991, but now, you get an idea that there's actually much more than just a single result, which you see here on the left chart. It's 500.

Taking this a step further. Now in 1991, we have 5,000 bioassay results, and the Y-axis goes from zero to some number -- some positive number. And so, it's not a single number it's multiple numbers, and that's what you see here by the multiple different layers as you see. The fact that it kind of goes up like a Christmas tree is simply the result of a random distribution of locating that result along the line associated with the exposure result in the bioassay sample. So, this would be a way of representing 5,000 results for the year of 1991.

Now what we've done is we've split the data in 1991 to subcontractor construction trade workers versus all other workers. What's really important and what's described in the report in greater detail is the definition that was used for subcontractor construction trade workers. Why? Because SC&A used one definition, and NIOSH used a different definition. The overall results were very similar, and the conclusions were basically the same. But if someone wants to go and understand what the subtleties were between the definitions, I encourage you to read those reports of the report associated with this result.

But on the left are just subcontractor construction trade workers compared to all others. And this is what you will see in the next slide where

we talk about whether or not subcontractor construction trade workers are more highly exposed or tend to be more highly exposed than all other workers at the site. On the far left is an example of the result that would suggest that subcontractor trade workers are exposed higher than all other workers.

So, what we see here, you can see that visually. In the middle, there's no difference. They basically are all within the same type of height,

the numbers are about equal. This is intuitive. By just looking at it, you can recognize that there's not much difference at all. And then if you look at it from a statistical standpoint, because the numbers are so great, the statistical significance probably would be very difficult to get if -- if something like here, you might be able to see it, but I doubt it. So, on the right, the subcontractor construction trade workers tend to be lower exposed than all other workers. So, we are looking for these types of trends in the analyses of all bioassays.

And the next slide is just one example. And let me take -- walk us through here. We have Plutonium-239 bioassay results in the urine and dpm per liter. It's a scattered jitter plot of these bioassay results. So, you are now, looking at 106,514 results on this one slide of subcontractor construction trade workers that would have represented it in the red triangles and all other workers represented it in the kind of gray circles from 1991 up through 2007. And, again, 2007 was when the SEC request was originally submitted. We have the data to go all the way up through 2007, so this is a NIOSH product that we can provide.

The original request by the committee was to look, I think, all the way

through 1989. So, what we look at this -- when we look at this, we see some variations because of changing procedures when they started reporting negative results and things of that nature. The takeaway for this is that we did not find any evidence to suggest that the subcontractor construction trade workers tended to be more highly exposed than all other workers, which is an important part of -- and that answers the question that was originally asked and addresses the assumption some people carry that hey, these people were brought in to do the dirtiest jobs, they're the highest exposed, they get burnout. The data didn't necessarily support those types of conclusions, and we also learned that in some circumstances, there's evidence to suggest that this type of workforce, the subcontractor construction trade workers, were actually exposed in a lower setting than all other workers.

So, here's our concluding slides: Report 92 demonstrated that unmonitored workers worked alongside monitored workers meeting the original intent to determine representativeness, a key criteria necessary to develop these coexposure models. The job specific samples served the same purpose as routine samples and were implemented as part of a routine bioassay sample. This has been corroborated in SRS communications, SRS procedures where there was confusing language clarified in 1997, and interviews with former SRS subject-matter experts.

Unreturned job-specific bioassay samples from 1997 represented a very small percentage of the overall bioassay samples requested. All 256 workers with unreturned job specific bioassays were followed up on and none had positive results. The purpose of the TRACK analysis was to

determine whether special samples included in the TRACK database were included in the coexposure files. The NIOSH analysis that we did perform concluded that 97 percent of these TRACK entries have corresponding entries in the coexposure data set. That was an important aspect to make sure that our coexposure model captures all of the information or most of the information from people who were most likely exposed.

The subcontractor construction trade worker annual dosimetry results and bioassay samples do not tend to be higher than other workers at SRS from 1991 through 2007. As you can see, the sub-bullets here, we did that analysis. And the one I showed you was for Plutonium-238, but we did the analysis for external deep dose, tritium, Plutonium-238, Plutonium-239, americium, curium, californium, uranium, neptunium, and strontium. No evidence was found in the data that subcontractor construction trade workers were among the most highly exposed workers at SRS between these time periods.

The same conclusion can be made using SC&A's definition for subcontractor construction trade workers. So, therefore, it's not necessary for NIOSH to conduct what we call a TWOPOS, which is time-weighted, one-person, one-statistic analysis or multiple imputation analyses, which are actions that we take when we go forward in developing a coexposure model so that we don't overemphasize one worker who may have had multiple samples. We look at that workers' overall dose and how that's applied as opposed to the individual. We don't have one individual kind of biasing the overall results.

The final conclusion here is in 1998 -- or I'm sorry -- the 1998 DOE

notice of violation did not or does not impact NIOSH's ability to reconstruct doses to any workers, including subcontractor construction trade workers, who participated in the job-specific bioassay program from 1991 to 1998. So, finally my note here is really it's going to be a question, I guess, for the Board to decide, but I'm very willing -- because we have new Board Members and this is a brief summary of a very lengthy process that dates back to 2017 -- to put together a brief historical document, which kind of summarizes all of this work that was done by this SRS work group. If the Board is interested we can put that together and get that to the Board very quickly. And that concludes this presentation. I'd be happy to answer any questions.

MEMBER BEACH: I'll go -- I'll go first. This is Josie. John, back on your slide 10, I -- you said it was a very important slide, and I thought oh, that looks great, and then I realized that's 1997 data. So, why is NIOSH relying on nineteen ninety say -- 1997 data for, I'm assuming, the '91 to '97 time period?

DR. CARDARELLI: Well, --

MEMBER BEACH: '96.

DR. CARDARELLI: Okay. The reason this -- because what you'll probably see in the next presentation is that -- and that came to the conclusions -- the Department of Energy actually fined the SRS site and gave them a $75,000 fine. And it predominantly was because they did not follow their procedures in 1997. Actually, 1996 and 1997. It was a procedural violation.

And the original thought would have been that perhaps they were not

monitoring the workers properly, so therefore, they couldn't characterize their doses appropriately. The DOE investigation came to the conclusion that they were monitoring workers appropriately. They -- they were not in violation of any dose issues that would have caused a violation. But the workers didn't follow their procedures. So, the violation was actually changed from a worker health and safety monitoring to a procedure in violations -- follow -- not following procedures. And why this is important is because you will see the 79 percent value come up. And I really wanted to stress that it was only for a three-month period, which spawned part of the DOE's fine in 1998.

MEMBER BEACH: So, just a quick follow-up. How does that pertain to or apply to 1991?

DR. CARDARELLI: The perception was that if you have this problem in 1997, how do you know it didn't occur back in 1991. And we had lengthy discussions through multiple SRS work groups to describe why that is not an appropriate allocation or -- or kind of retroactive assumption to suggest that if this happens in 1997, how do we know it didn't happen in 1991. The data is certainly there. I showed you in the plutonium, and that's why you -- that -- I think I've answered that question with regard to why does it not apply to 1991.

MEMBER BEACH: All right. That leads me to my second and last question on your scatter plot data, slide 22. It looks like the -- the PU data drops off in 1993. Is there an explanation for that?

DR. CARDARELLI: Are you referring to this spot here?

MEMBER BEACH: Yeah.

DR. CARDARELLI: And that's a procedural change in how they would report the data here. They -- they didn't -- you don't see anything below the zero line here. They're reporting uncensored data. And at this point, I will also bring in Dr. Nancy Chalmers, if she's on the phone, to further explain why you would see these negative values. I don't know if she's on the phone or not.

DR. CHALMERS: I'm here John. Can you hear me?

DR. CARDARELLI: Yeah. Go ahead.

DR. CHALMERS: Yeah, I think you covered it. I think you covered it.

And all these sort of things that you see in the data like this, I think most of them were described in the white paper. We were pretty -- pretty careful to make sure we went through and described some of those things, but you'll see, like John was talking about, around 1994 Savannah River actually started reporting negative bioassay results. So, that's kind of what you're seeing there is a transition from '91 and '92 when they weren't, obviously. Then into '94 they actually were. And so, '93 was a bit of a transition year, as far as that's concerned.

MEMBER BEACH: How long did that transition last?

DR. CARDARELLI: Well, you mean the transition of the -- the way they presented the results?

MEMBER BEACH: Yeah.

DR. CARDARELLI: Well, obviously, they have negative results all the way going out to 2007.

MEMBER BEACH: Yeah. And Nancy said it was a transitional year, so I was just curious. Okay. Thank you.

DR. CHALMERS: Well, I think -- I think it was probably -- like you -- there's probably a date you can draw a line in the database. We didn't really look at that. But there's probably some point in 1993 where they switched from not reporting negatives to reporting negatives. And so, I can't tell you exactly what the date might have been, but it's just an artifact of the way things were reported and recorded. That's all.

MEMBER BEACH: Okay. And then can I ask one more, Brad? Sorry for belaboring this. What was the state of bioassay data in -- this isn't related to a slide -- but in '91, per se, since that's what we're talking about?

DR. CARDARELLI: Well, there's a tremendous amount of data. As you can see in this particular slide, for Plutonium-239. Again, this whole slide has 106,514. In normal development of a coexposure model, we're kind of happy in a lot of respects if we can get, like, 30 results in a year from a statistical standpoint. So, we have more than enough data to develop a coexposure model in this context from 1991, certainly, moving forward.

MEMBER BEACH: Okay. Thanks.

MEMBER CLAWSON: Are there any other questions?

MEMBER POMPA: Yes. So, Bradley, I have a question. When you talk about bioassay samples -- this is David Pompa -- is there a different bioassay sample for uranium and plutonium?

DR. CARDARELLI: Well, they would be a -- the result, the analysis, the chemical analysis, is certainly different, but it would come from the same urine.

MEMBER POMPA: Okay. My next question is when there's a potential exposure or release, what's the difference -- I mean, what's the time

difference between the exposure and when the sample is given?

DR. CARDARELLI: That might vary in the procedures over time, but, typically, if you're involved in an incident, they would have you leave a sample, a special sample very quickly. You would leave the environment and go leave the sample because you were involved in an incident. So, that would be very important to capture that. And if there's a follow-up, they would take multiple samples so that they can do a dose reconstruction effort on it. That's another big difference between a routine sample and a special. A special is done so we can estimate what the dose might be from an occupational compliance standpoint. So, they would take those samples very quickly.

MEMBER POMPA: Okay. Thank you very much.

MEMBER CLAWSON: Any other questions?

CHAIR ANDERSON: I just have one question, John. When you say all other workers, that's everybody at the facility or is that the construction trade workers who are employed by the facility versus subcontractors? I think that's one of the issues. Are the subcontractor construction trade workers different from the regular construction trade workers?

DR. CARDARELLI: Actually, it's all others that we'd find. It's subcontractor construction trade workers compared to all other workers who would have left the bioassay sample. So, they could be other contractors hired by the site, or they could be the normal operations folks. We do have another study that was done in house, but it was done a little bit earlier in this time period, and it would show for external radiation that the subcontractor construction trade workers compared to the contracting -- the

SRS contractors -- so, the subs compared to the SRS contractors -- those subs were exposed about half the level of the SRS contractors for external radiation. So, there -- there -- there's another independent study out there that does show that kind of a trend.

CHAIR ANDERSON: Yeah. I was mostly interested in, you know, not the other workers or special other workers, but those who are in construction. I mean, just looking at the numbers across the top here, you see, '93 there's 1,980 subcontractors. And then by '96 it's down to 957. So, the number of subcontractors then seems to differ while the total number of employees is different. So, I mean, if they're -- if they did samples on everybody there, it's not just -- you know, you could have a lot more in the general population who were sampled who didn't have any exposures. And that's why if -- if you're a -- you know, if you're a construction worker, I think it would be interesting to see the subcontractors, were they doing something they were brought in for specific projects versus the in-house staff?

DR. CARDARELLI: Well, I would say people -- they don't necessarily -- you -- you don't find yourself on a bioassay routine monitoring program if you aren't going into an area that would give you a potential exposure. It didn't matter what the activity necessarily would be. So, if you had a bioassay, you had a potential for exposure. And so, this -- it wouldn't necessarily include people like administrative staff who would never enter a radioactive area that might have potential airborne radioactivity or didn't wear a respirator.

CHAIR ANDERSON: So, you have the job description for the workers

in the test? I mean, can -- when you say it wasn't the management staff, that might not have been part of their plan, but is that true? Have you -- can you validate that, that --

DR. CARDARELLI: Well, we certainly -- you know, Nancy I'll let you speak to what the actual variables are that are in the bioassay database, but I do believe that if we had to just rip out, like, administrative staff, the question would be would that change these conclusions, and I believe the answers are resounding no. We would find similar trends.

DR. TAULBEE: This is Tim. If I could interject here just a little bit, Dr. Anderson. There's a couple of points that I'd like to point out. The numbers across the top are bioassay samples, not individual workers. So, that's one important point to keep out. These are the number of samples collected from subcontractor construction trades versus the number of bioassay samples from all other workers. So, that's one point.

The other point that I want -- that I think will help answer your question with regards to comparing subcontractor construction trades and other construction trades workers is really buried in Report 92 that we put out a few years ago. Excuse me. And in that report, we compared whether subcontractors -- subcontractor construction trades workers and nonsubcontractor construction trades workers worked alongside each other. And we did that by looking at individual RWPs. And so, we did a sampling of RWPs. We went out to the site and collected several hundred. I want to say it's three or four hundred of these RWPs. And we did the comparison that you're talking about. And so, those results are there in Report 92 comparing those two direct workers -- or those two categories.

And what we found was that in the cases where the subcontractor construction trades workers were not monitored, they were working alongside workers who were monitored. And so, that's how we came to that representativeness conclusion, which I think addresses your question, if I'm understanding it correctly sir.

CHAIR ANDERSON: Yeah. And the other is, so how many individuals -- how many -- in the routine program, how many samples would an individual be expected to put into the system annually? So, of the -- then in '91 there, of the 2,775 samples, how many individuals does that represent?

DR. TAULBEE: I -- I -- we could -- we could determine that, sir. We could go back and look at this particular data and give you those numbers. That -- that's possible. We haven't done that right here, but that's certainly possible to do. We do have these individually identified.

CHAIR ANDERSON: Yeah. Because it would be interesting to know if it's somebody was in a -- did they have -- if it's once a month or quarterly, did they have four samples? How many people had only one sample because they were in there for a more limited period?

DR. CARDARELLI: It's an excellent question, and we can say that we do know the monitoring frequency for routine for plutonium and uranium is -- typically it was on an annual basis, but it does not mean that others may not have left more than one sample if they were involved in an incident or if that same worker went and did, like -- needed a job specific. So, they were -- they were on routine for plutonium and uranium, so they would leave, basically, one sample during their birth month or something similar once per year. But if they worked in a neptunium area, they would have had to have

another sample that was specific to neptunium. That would have been a job specific sample.

And so -- and -- and these also will change with tritium. Tritium is the only other isotope out there where they did more frequent, some -- mostly, like, monthly type of monitoring for tritium. And that's simply because tritium would clear from the body much more quickly than plutonium or uranium would. So, we don't need to sample workers as frequent for plutonium and uranium as we do for tritium to characterize dose .

CHAIR ANDERSON: So, it's likely that those -- I mean, what is the total workforce? I mean, if you have one person who is submitting five times the number of samples of another individual there that -- if they're doing the same thing, you could, you know, sum them up and give them their average exposure. I mean, you know, it's just a -- just looking at the shifting total numbers there, is that reflecting total individuals or what?

DR. CARDARELLI: It's not --

CHAIR ANDERSON: You're 11,092, you have 11,000 in the other group versus 3,000 in -- you know, and it bounces --

DR. CARDARELLI: It simply means that, you know, they didn't have as many subcontractor construction trade workers working relative to nonsubcontractor construction trade workers.

CHAIR ANDERSON: but these are all workers, you said, not just the -- just the construction trade workers who are not subcontractors.

DR. CARDARELLI: If you were to add these up, that would be all urine samples for Plutonium-239 for all workers at that site in 1992. We broke that out by subcontractor construction trade workers from all other workers.

So, --

CHAIR ANDERSON: You didn't separate out from all other workers the construction trade workers there who are not subcontractors?

DR. CARDARELLI: Well, it could be done once we define -- how we want to further break this down, but we don't believe that that would change the conclusions here. I mean, --

CHAIR ANDERSON: If somebody who is an electrician is doing something different than somebody who is -- who is -- who is, you know, some other kind of person in the same area -- I mean, I'm just saying, typically, we would compare, you know, --

DR. CARDARELLI: This is a different analysis.

CHAIR ANDERSON: -- parameters.

DR. CARDARELLI: This answers a different question than whether or not an electrician or some job title and how the job titles may differ by the -- by the actual work activity. That's a different analysis and we -- I think we have done this many times before. We look at Report 92, Report 94, and some of the other analyses that we've done where we looked at craft and monitoring completeness and things of that nature. So, this --

CHAIR ANDERSON: Okay. I'll have to go back a little bit. I haven't -- haven't done that, but I -- I'm just trying to understand what you have here and why the numbers are so different. Like, in 2001, you only had 409 subcontractor samples versus 3,378 in '92. So, there's something different in the construction work in the facility. They're not doing much maintenance.

DR. CARDARELLI: Well, and keep in mind there are different activities

going on at the site in the '90s. Like, the K reactor was trying to be brought back up to speed, so you bring in a lot of subs to do a lot of other work. And eventually it didn't happen, so you don't need that workforce. There's different dynamics that would drive the number of workers at the site. And those dynamics would vary greatly and whether or not that type of work is clean construction or dirty construction, dirty being working in contaminated areas. So, I wouldn't look at these numbers as a trend as if there's some kind of significance to a trend. I would look at them with the way we were -- this study was designed, as to whether or not this group called subcontractor construction trade workers, if they are truly higher exposed or were brought in for the dirtier jobs, you would expect things, like in 1998, to be in the higher end here. And here, it's well within the bounds of all other bioassays taken for other workers at the site. We just don't see a substantial difference like you would expect from the other sites or the other -- we don't see --

MEMBER ZIEMER: Yeah. Henry, it depends on what question you're asking. I think you're raising different questions that --

CHAIR ANDERSON: Yeah, no, I --

MEMBER ZIEMER: -- this is not trying to address.

CHAIR ANDERSON: Yeah. I was just trying to sort that out as to what -- what -- you know, this answers one question, but, I guess, I had it on different. So, that's fine. Any other questions people have?

MEMBER CLAWSON: Well, and that -- that being said, Andy, the next presentation is going to cover a lot of the other side of this, because as we all know, in these work groups, it's two-sided on things. And you can color

it whatever you want. But, you know, we're all trying to get to the bottom of this. So, my suggestion would be is that we let Bob Barton give his presentation and then we'll have some time to be able to answer up some questions. And I think some of this will be answered by Bob's.

And I forgot to also say who the other work group members are on the Savannah River work group. We have -- we have Jim Lockey, we have Paul Ziemer, and we have Dave Pompa. And I'm glad that Dave is now able to talk with us. I know that he's -- he's listened into quite a bit of this. But these are the other work group members.

And I think that if we let SC&A go through their presentation, it'll kind of bring another little bit of a picture to it, and I think it'll help some of our questions. Because I've got -- I've got some things that I want to do as kind of a little bit of a background, too. So, I will turn it over to Bob Barton and -- which is SC&A and allow them to do their presentation at this time.

MR. BARTON: All right. Thank you, Brad. Hopefully, you can all hear me and see my screen.

MEMBER CLAWSON: Yes, we can see it, Bob. Thanks.

MR. BARTON: Okay. Great, great, great. All right. Well, good afternoon, folks or, you know, morning, depending on your location. My name is Bob Barton with SC&A, and I'll be giving the presentation today. However, I wanted to highlight before I even get started, Ron Buchanan and Joe Fitzgerald who did really the lion's share of the work for this specific SEC period discussion. They are online to real me back in or answer specific questions about this update. And before I really dive into the presentation, I want to make sure we focus on the crux of the issue under discussion by the

work group, and that is -- well, keep in mind, the Board has already evaluated an SEC for subcontractors for the prior period. That's up through 1990 and recommended the SEC be established. So, the question is really simply is 1990 sufficient as a cutoff date for the SEC, or did issues with the nonroutine job-specific program continue into the 1990s such that the SEC should be extended to some later date. So, I'd like to keep the focus of this presentation on that.

And with that said, I'll get on with it. So, these next two slides are simply to give some background on the exchange of different white papers and work group meetings that have occurred since the previous SEC was recommended. This is why the list of documents on these next two slides really start in 2021, though, discussions regarding subcontractors and construction workers in general go back many years in some shape or form, all the way to, basically, the first work group, I believe, was in 2006. So, for this first bullet, you know, you can see the dates of the Board's previous recommendation, which was, again, up through 1990.

An SC&A report focused on this latter period, '91 to '07. And NIOSH's response to that focused review and the two most recent work groups, which were in 2023 and 2024. And all these documents are cited -- that are cited here are found at the back end of this presentation with hyper -- hyperlinks. And I agree with Dr. Cardarelli that -- I won't say that they're necessarily interesting reads, but that's where all the information really resides on this issue, which there's been a lot of exchanges.

So, here's some more time line points on report exchanges. You have the TRACK database, which Dr. Cardarelli mentioned, which I'll discuss a

little later in this presentation. You have an SC&A response paper based on discussions at the 2023 work group meeting. And then there's a trio of white paper responses and additional material produced by NIOSH in 2024, which were discussed in the previous presentation.

The next few slides are really just going to be an overview of the previous SEC to, again, bring up the root question that is under discussion, whether the SEC cutoff date should be extended. So, here is the official recommended class submitted by the Board for the -- again, the prior period '72 to 1990. I won't read all of it, but, basically, subcontractor construction workers in a -- in a somewhat unique class definition. In this case it, specifically, points out that prime contractor employees are excluded. So, for the prior period, it would be DuPont and Westinghouse as there was some transition going on there at the end of that SEC period.

So, the rationale for the SEC designation was as follows: It, basically, boils down to the fact that subcontractors did a significant variety of jobs. They may have worked in unusual nonroutine environments. And there were contemporary interviews with subcontractors indicating that sometimes they were brought in for jobs with potentially higher exposure potential. And this was actually pointed out by NIOSH way back in 2017. Also, some subcontractors were often transient. So, a lot of different jobs in different locations and short-term employment length, again, for part of the -- the subcontractor population. Why is this important -- is that these types of workers would most likely fall under the purview of the job-specific program rather than the routine bioassay program.

Here is the chief conclusion from the Board's recommendation letter.

And, essentially, it was that insufficient information, which included job-specific bioassay for subcontract construction trade workers. Again, this was the recommendation for that prior period. And now the discussion is post-1990, and is dose reconstruction feasible for those subs. So, again, the main question before the work group at present is what time is the confidence that programmatic policies regarding that job-specific program, these would include procedures and such, when is that balanced with the actual percentage of workers submitting these samples -- essentially, when were these procedures being sufficiently implemented. In other words, at what point has the program evolved to the point where the Board is confident that dose reconstruction would be feasible via the development of a coexposure model for unmonitored workers.

The last bullet there refers to some questions that were raised about how you calculate the percentage of workers on a given work permit that were monitored or were effectively monitored. I'll get into that definition a little bit later. But basically effectively monitored as in working next to someone else who was monitored. Because as Dr. Cardarelli pointed out, one can then argue that the unmonitored workers' exposure is represented in the available data.

Matching radionuclides was, basically, when you consider a worker monitored. And the discussion was, basically, if they're monitored for one radionuclide on the RWB or should they be monitored for all radionuclides; however, this issue was effectively resolved with NIOSH recalculating, considering both criteria, SC&A's numbers and NIOSH's numbers about who was monitored directly and effectively were very similar. The next few slides

relate to NIOSH's most current positions. or SC&A's view of current positions on -- on some of the key issues.

Okay. On the issue of data completeness, which the issue is, again, that they found that there was an issue with workers submitting their job-specific bio-essay. Thus, there is some level of incompleteness in the available data set, not because they can't be found; it's because they never existed. Niosh notes that compliance and completeness aren't relevant. What is relevant is whether workers are represented in the data set. So, just to sort of clarify this point, when SC&A mentions compliance, we mean compliance with the SRS program documentation that prescribes these job specifics. And it was really meant to be used as a marker on when data could be considered sufficient for a coexposure modeling.

Completeness and representativeness are actually two of the four core concepts in NIOSH's own implementation guide on coexposure modeling. And that's IG006. So, again, they're really tied at the hip. If you have incompleteness in the data, can you still establish representation. And there's no exact, you know, number to be reached, you know, like 80 percent, 90 percent, 99 percent, but it's really a subjected judgment for the work group and the Board as a whole. And again, to keep things -- try to keep things in focus, the issue of completeness was already decided by the Board for the prior period. Now, we're talking about the latter period.

Okay. regarding job-specific samples, NIOSH contends that the program is simply an efficient way to add workers to the routine sampling program and not special samples, which special samples are, essentially, incident-related. And we agree. Job-specific aren't special, but the

procedural documentation from SRS, this 5Q1 document, were clear that job-specific and special samples are distinctly different. So, we agree on that.

However, the job-specific sampling program was for nonroutine radiological hazards, basically, the worker isn't on the routine program otherwise, there would be no need for assignment of job specifics in the field. Again this is not a new issue. The question is when is the Board comfortable with the cutoff date? Is 1990 sufficient, or should it be extended?

This slide describes the discussion on self-assessments, which Dr. Cardarelli went through. The issue is really over the finding by the site, again, it was a self-assessment, of the 79 percent noncompliance with job-specific programs, even into the late 1990s. Essentially, the workers that were to be covered by that job-specific program are such a small percentage of the monitored workforce that it isn't really significant in the context of a coexposure model, and SC&A disagrees. If there's a group of workers out there, however small, that wouldn't be sufficiently represented or credibly bounded by a coexposure model, then we believe that is a significant issue.

There was some discussion about the TRACK database in the previous presentation. This slide really summarizes SC&A's review of that TRACK database, which was sort of a recent development. It was requested directly from the site, and we all got it in June of 2023. As mentioned in NIOSH's presentation, or alluded to, the TRACK database was established in the early '90s to, essentially, track incidents, things like measured airborne hazards or a contamination that may have been directly detected on a worker, whether

from self-surveys, RADCON, or maybe they went through a portal monitor, that sort of thing, or positive swipe samples from an area that were noted, also any notable internal monitoring results. You know, notably a little over a third of the entries that we saw in the TRACK database, about 38 percent, actually didn't designate a specific reason, which is somewhat curious, but probably of little consequence.

About two-thirds of these incident entries required follow-up internal monitoring, though, again, not designated -- a reason does not necessarily indicate that there weren't follow-ups required. We noticed that there was a downward trend in the number of incident entries from '94 to '96, and then there was a notable spike in 1997. We're not really certain why -- why the spike in '97. I mean, I can certainly speculate on it. It might be related to those self-assessments occurring during that time period, but, again, we don't necessarily know.

One thing we did is we compared the TRACK entries with available electronic bioassay data and found that 95 percent of the entries were found for trivalent and nearly 100 percent for plutonium. Again, these are -- these are incident follow-ups, essentially. We also compared it in the other direction where the positive bioassays in the electronic bioassay database reflected in a TRACK entry. And for most radionuclides, because that's how we broke it out, it was in the range of about 80 to 85 percent. By the way, it says Table C-3 here, but that is a typo on the (indiscernible). It should really be Table C-7 of SC&A's 2003 report, which again, is cited on the back end of this presentation.

So, I guess, in conclusion, TRACK is certainly a useful tool, but I would

remind everyone that it is an incident database, not necessarily relate -- related directly to job-specific bioassay, and thus, wouldn't directly reflect the exposures for those not routinely monitored or not submitting required job-specific bioassay sample or who didn't have a special sample. So, while it's useful, I'm not sure it completely gets us to where we need to be. But it is certainly a weight of evidence.

Okay. Here we talk about one of NIOSH's recent submittals, which compared monitored subcontractors with the other SRS monitored workers, the subject of the previous discussion. The statistical conclusion was that there was, essentially, little difference between the populations and no evidence that monitored subcontractors were more highly exposed.

But, I guess, the thing to remember, though, is what the unmonitored workers would have shown because we can't know that. I mean, these would be workers not likely to have been monitored routinely, again, likely to performing transient work in nature, and there were accounts of subcontractors being brought in for the harder jobs. We've been talking about the job specifics, but it should be noted that as late as 1997, there were issues with collecting termination samples, which if you're only on the site for a short time, it seems logical, at least to me, that this problem would certainly affect the group of workers under discussion.

So, to summarize the status here, SC&A agrees that a coexpire -- a coexposure model could be constructed for some point in the post-1990 period with really these two caveats: The subjective judgment then-available job-specific bioassays are sufficiently complete and representative of the exposures experienced by the subcontractors balanced with evidence

that the program itself was adequately implemented such that significant exposures would not have been missed. So, any SEC consideration should balance those two considerations, and that's actually conclusion five from the 2023 SC&A response paper.

SC&A's conclusion is fairly simple. We feel like the issues that have been presented since the previous SEC establish aren't necessarily new issues that weren't already discussed and adjudicated by the Board. So, it really comes down to a subjective judgment on whether it is necessary to extend the SEC cutoff date to some later date and time or determine that 1990 conditions were sufficient that coexposure models can be used for these unmonitored workers.

So -- so, some possible options. Obviously, one option is keep it as it is, you know, no change in cut-off date. You have 1991, NIOSH noted that field procedures were changing and now required notification for any suspected intakes so that dose reconstruction is feasible starting in 1991, which is the first year that we're really discussing today. You have 1992. You have RWP guidelines that had evolved and included job-specific bioassay at this point.

To those, obviously, not familiar with the work group discussions, these percentages you see on the slide are first the percentage of RWPs reviewed that had a specific bioassay requirement. DM stands for direct monitoring. I sort of described this earlier, but it refers to a worker on the RWP that actually submitted the required samples. EM stands for effective monitoring, which is, again, this concept that the unmonitored worker was working next to a monitored worker and thus is represented in a coexposure

model. And so, those unmonitored workers are included in the EM percentages you see on this slide.

Moving on to 1994, we found that RWPs listed the relevant bioassay requirements about 60 percent of the time. So, this is sort of another -- again, it's a balancing act, but another benchmark during this period. And then you have 1996, sort of the other end of the spectrum. This is the last year in which the job-specific bioassay collection was not verified as complete. And as [Identifying information redacted] alluded to in 1997, there was the self-assessment, which identified this -- this primary issue. And as a result, they went back and performed 100 percent resampling for the year, at least for those workers still at the site.

So, to sort of sum up the most recent work group discussion, again, back in September of this year, NIOSH has been consistent in maintaining that dose of construction is feasible beginning in 1991. So, essentially, there would be no need to extend the SEC for subcontractors. The other plausible end date, or the other end of the spectrum, if you will, would be 1996. And again, the reason for this is that they did that 100 percent resampling in 1997. And they initiated significant changes in the field practice for job-specific sampling so that this noncompliance issue with their program was, essentially, fixed beyond 1996.

So, what is being weighed by the work group at the moment is when did the established procedures in place in 1991 translate to actually implementation in practice. And that, again, you have essentially two parallel things taking place. You have an evolving radiological protection program throughout the '90s and then you have the actual data that both

SC&A and NIOSH evaluated direct -- directly from captured RWPs. In the recent discussions by the work group, there was, I'll call it tacit agreement, that the balance of those two parallel facets points to the end of 1992 as an appropriate cutoff point; however, the work group did not officially vote on a recommendation of the Board back in September.

So, before I wrap this up, I know we have limited time, so I kind of sprinted through this, but let me just ask Ron Buchanan and Joe Fitzgerald if they have any -- anything they want to add or correct, anything that I may have mucked up? Okay. Hear -- hearing none, that ends SC&A's presentation here. Thank you all for your attention.

CHAIR ANDERSON: Back to Brad.

MEMBER CLAWSON: Well, and -- and I appreciate Bob you and John giving this. I -- I have -- I want the other Board members, Paul and Lockey -- they'll be able to sound in. But I want you guys to also -- I want to be able to -- because we're bringing this before the Board because we're basically -- it's going to have to be the Board that passes this anyway. We came to a tentatively (sic) agreement. As Paul put it, Brad you're hanging for '96. What's to say there isn't something before this that we could go in there. Because this -- to be able to vote on this, the whole Board is going to have to vote on this. So, we wanted to start bringing this before the Board, but I wanted --

CHAIR ANDERSON: You're on mute, Brad.

MEMBER CLAWSON: Yeah. I hit -- I hit the wrong button there. Sorry.

I want to bring before you kind of the time period that we're in,

because this is an interesting time period. People ask me how come did we close at 1990 as the cutoff. Well, that's when the change from DuPont to Westinghouse -- where the contract changed. So, we felt that that was the cleanest point to be able to bring this SEC, because there were a lot of changes that came in with Westinghouse. But I also want you to realize, and I want you to think back when June 6, 1989, that's when Rocky Flats got hammered by the FBI. And when this happened, DOE come under great, great criticism, so forth, because nobody was complying to a RADCON program. They had them, but they weren't being implemented quite right, and this is when DOE started implementing their site-wide RADCON programs. Before that, a lot was being done by different sites, different things. This is like it -- it's kind of an interesting period. And this is also when you start to see the Tiger teams appearing and coming in, self-monitoring, and everything else

All of us in here heard the term self-identified. Well, I wanted to talk about that term. Because that term is used because DOE has come out and said hey, listen, this is kind of a get-out-of-jail-card-free here. We want you to self-identify any of these RADCON programs that are issues that you see in here so that we can rectify them so that we can get these -- get these things put into place. You see a lot of change from 1990 up into the 2000s with the RADCON program. You also saw on those slides in 1991, all of a sudden we started to see some zeros. Now, we can speculate on this, but before that there was nobody saying well, if it's zero we're just not going to count it. Now all of a sudden, we want to count all of these. And all of a sudden you start to see some less than. These are people like

administrative and so forth like that, that still have to submit bioassays per their programs, which a lot of this changed over the years and everything else.

But this is a -- this is a time period that we're all looking at on this. And there is -- there is a lot of data. There's a lot of voids. There's a lot of questions. The questions of job-specific bioassay. What John portrays it as is different than what I portray it as, that I lived through. So, there's different things in this that we're coming forth with you. I want to give -- I want to give Paul and I want to give Jim the opportunity to kind of voice their concerns of we -- we randomly came to -- we decided on 1992. I've -- as Paul put it, I've always held out for '96, but what's to say that there isn't a time period in between there when we can really truly justify this and do this. And because it is going to be a full Board that votes on this, this is why we brought this for -- before you guys now. So, I'd like to be able to give Paul and Jim an opportunity to express their thoughts on the process and why -- why we came to you with 1992, for example. So, I'll turn that over to -- I see you're unmuted Paul -- and I'll allow you opportunity.

MEMBER ZIEMER: Yeah. So, just a couple of comments. Thanks, Brad. First of all, as was pointed out, the work group came to quote, tacit agreement, but didn't vote, and I just want to point out the reason for that. Because one of our work group members was not allowed to vote for some, what we think, mysterious reasons that no one really has told us in much detail, we felt it was unfair for the rest of us to vote if one of our members was not allowed to. So, we came to a kind of verbal agreement, but not an official vote. And that's the reason it's -- it was called a tacit agreement.

Fortunately, now that work group member is allowed to vote here as part of the full Board.

The other thing I'll just mention, and Brad's really identified it very well, that you have the idea that yes, we could do a coworker model starting in '91, but maybe everything wasn't in place. I think SC&A would be comfortable with -- clearly comfortable at the other end of the decade. The thing is that somewhere between '91 and '97 or '8, whatever that year is, things are in place such that everybody is fairly comfortable with saying yes, we can -- we can do the coworker model at this point. Thinking of all those issues the work group really did come to an agreement for that date that Brad described. And clearly, you'd have to say well, okay, but NIOSH isn't fully comfortable with that, and SC&A isn't fully comfortable with that. Somewhere, and nobody knows where that is -- it's not like these things happen. One day it's not good and the next day it is. There -- there's a continuum here. And that's where the work group and the Board have to come up with a time where -- where a reasonably comfortable coworker model is appropriate to go forward. The idea is we'll go ahead and extend the SEC for a couple more years so that everybody is assured that it clearly didn't happen overnight between December 31, 1990, and January 1, '91.

MEMBER CLAWSON: Well, thank you, Paul.

Jim, is there -- did you want to speak, or is Lockey off this afternoon?

MEMBER LOCKEY: I'm here.

MEMBER CLAWSON: Oh, okay. Just wanted to make sure.

MEMBER LOCKEY: No, I've been listening. I've been listening. So, I'm not sure why my -- it might have to do with something up here. Let me

see.

MEMBER CLAWSON: Oh, yeah. Turn on the light. There you go.

MEMBER LOCKEY: There we go. There we go. I had to make sure I combed my hair today. Yesterday I didn't do it. Anyway, I think Brad and Paul have summarized it very well. I -- I -- as a -- as a -- somebody who spends a lot of time with science, I -- I look at -- I looked at this, this process in the presentation that -- that NIOSH put together and the statisticians put together in relationship to scientific methodology. And I just, the way I look at things is, if -- if I had this database and I was writing a scientific article, would I really have to, at the end of the article, put anything in -- in the article that -- that would -- that would highlight major deficiencies of the database? And as -- as somebody who puts -- does publish articles, we have to do that. And -- and this database is, I think, one of the most rigorous well-defined databases that a scientific group could be presented.

We -- in the work group, we went back and asked NIOSH to -- to look at the subcontractors and repair their data to the workforce as a whole to see if there was any difference. And the jitter plots, which I -- I found a fascinating way to present the data. I just was -- was fascinated by that -- shows, in fact, there is no difference that you can see visually. Then the TRACK data, to me, was very important. Because the TRACK data was data that indicates there was an incident.

There was something that occurred that represented an unusual exposure in an unusual circumstance. And the TRACK data said, in fact, all that data has been included. So, there's nothing that shows there's an

outlier or circumstances where the potential outliers exist that may not have been included in the -- in the coexposure database. And so I think that -- I thought that data reassured me that, in fact, NIOSH is capturing everything they need to capture to come up with a legitimate coexposure modeling.

I don't see any -- anything in this database that indicates that that's not the case. Now, you can say what if, what if, what if, but you can say that with any databases, and there are always going to be uncertainties no matter how 00 even to get 100 percent of the workers, there's still going to be uncertainties. That's -- that's just -- you can't monitor -- you can't monitor everybody 24/7 360 days a week (sic). You just -- it's not economically or time-wise viable to do that.

So, you know, during our -- during our last meeting we had in September, I think we -- as -- as Paul said and as Brad -- we came up with what we thought was a reasonable compromise in this particular circumstances. I -- I -- I would be comfortable, you know, going back to 1990, but I think it's reasonable to -- there's -- there's some ambiguity that we could say that perhaps the best time is December '92, and I think that's a reasonable -- reasonable endpoint for this particular SEC. S, I think it's a -- it's a -- it's a -- and this issue is going to come up with more contemporary databases that we're facing. So, we're not just going to face it here as, I think, Brad has referenced to. It's going to be going to be seen in other places where we have more contemporary monitoring programs and more -- very -- more rigorous databases.

MEMBER CLAWSON: Thank you, Jim. I -- I appreciate that.

And so, I wanted to kind of give my --

MEMBER BEACH: Hey, Brad?

MEMBER CLAWSON: Yes?

MEMBER BEACH: Are you going to like let Dave comment, or?

MEMBER CLAWSON: Well, yes. If -- if he feels confident. I know -- Dave, if you'd like to say anything?

MEMBER BEACH: And then I have a question, too, whenever you get back to me?

MEMBER CLAWSON: Okay.

MEMBER POMPA: Yeah., I've been listening for the last six months.

I've been having some questions on -- on, you know, the RB -- RWPs and so forth. But I'm going to listen I still have some reservations, and I agree with -- with the committee. I'll pass that forward.

MEMBER CLAWSON: Can I -- is -- is there -- is there anything you'd like to -- to -- to address about this? And what -- any feelings that you have on this?

MEMBER POMPA: You know, like I said, I had some questions. You know, the -- the -- the RWPs, you know, we -- that been mentioned several, several times, but how far back do they go, you know, of course, the quality of them. The other one was contaminated material -- well, contaminated areas was mentioned. Is that raw material, because that's -- that's very strong potential of contamination?

MEMBER CLAWSON: Yeah, I think, Dave, that it's kind of covering all of those aspects. I want -- I want everybody to realize we're not -- we're not expecting the Board at this time to make a vote. We're coming to the Board with -- with this kind of issue of -- coming to a -- to a consensus and -

- and talking to you, because we, as a work group, can give you a recommendation, but it still comes down to the whole Board of how we vote on this. So, we're going to be bringing this to you. So, we're going to be opening this up for questions.

But I want to -- I want to kind of go back to what I wanted to kind of say. There is a lot of data out there. And I -- I try to make the example of -- of where -- we were in a changing time at this place. Westinghouse just took over in the '90s. You hear us talk about the notice of violation. And the notice of violation was in '97. And this is -- this is an important time period because, to me, this was the first time -- the end of '96, when they went into '97, this was the first time that they could really truly say that they did a hundred percent valuation because they had to go out and through that year have to gather everybody, do these bioassays, and go from there. So, that's why I was always hanging at that time period. But, you know, that this -- this comes down to us as Board Members of where we want to be able to cut where we need to cut this off at.

As far as the TRACK database, one of my issues with it is later on those were called a near miss, and there were procedures to that -- that what triggered a near miss to be able to be put into these databases. There's other databases that other sites used to kind of keep track of incidences that went on. I know that with the -- with the Navy and so forth, if you have any kind of alarm go off on a portal monitor, you have a log that you keep of what they did, blah, blah, blah, blah, everything else like that .

But this whole time period that we're talking here is a time of change. And we're trying to come to a point of where we feel confident as an

Advisory Board that we have sufficient data to be able to do the cutoff for the SEC.

And with that being said, I'll open it up to any comments that anybody would like to. Josie, you've already expressed that you had a question, so I'll turn it over to you.

MEMBER BEACH: Oh, thank you. In listening to everybody's presentations from SC&A -- and then it was interesting listening to Jim and Paul -- my biggest question goes back to -- well, first of all, comment claimant favorability. And when you're wrestling with '91 to '96, what -- what was the technical basis for you -- the work group coming up with '92 versus '96. I keep going back to the numbers of RWPs. It was 63 percent in '94, I believe, 85 percent in '96. And then you said 100 percent resampling,, but that was of the people that were left. So, really you can't say it was totally 100 percent, but, I guess, just the basic what's the technical basis? I mean, when I read the transcript from your last meeting, I heard -- I listened to policy -- public policy, I believe, was one of the terms used, I believe, by Lockey and then scientific data. So, I don't know who can answer that, but, that's my question.

You're on mute, Brad.

MEMBER CLAWSON: Well, I'm having a hard time, too. Yeah, I guess, I'll refer that over to Paul because this was -- this was kind of something that we came into, and I think he kind of addressed it a little bit there at the beginning, but I'll allow him to be able to speak to that or Lockey.

MEMBER ZIEMER: Well, I'll -- I probably won't answer it in a definitive way. We may want to go back to John Cardarelli. But the issue is not so

much when you have the particular numbers of RWPs. The issue is when can you do a coworker model. When do you have enough statistical data to do a coworker model. And so, you know, you can ask questions about what compliance levels were there, or you can ask questions about how many radiation work permits were issued, but the question really is when do you have enough data for a coworker model. John, you might elaborate -- John Cardarelli to clarify that more.

DR. CARDARELLI: Well, I think you're absolutely right. The key question was whether or not we can do dose reconstructions with sufficient accuracy given the data that's available to us. And -- and NIOSH has concluded consistently along from day one 1990 and moving forward and -- and frankly, previous years, but we don't address those at this point, that we could do dose reconstructions, and we can build a coexposure model to assign doses to those workers who are unmonitored. It just -- so, that's -- you know, that's kind of where our basis stands from a scientific perspective.

DR. TAULBEE: Tim, I see you. You're chiming in?

DR. TAULBEE: Yeah, if I could. Oh, I'm seeing -- hearing it -- there. Okay. I think to answer your question there, Josie, at least from NIOSH's standpoint, when we thought we could do dose reconstruction is when a coexposure model can be developed, and that is back to 1990 -- or back at the end of 1990, in this particular case, so 1991, 1992, going forward. And the reason that we came to that conclusion has to do with there's sufficient data available. And then we looked at, from the RWPs, the unmonitored workers that would be applied -- this coexposure model would be applied to are were they working alongside workers who were monitored.

And, again, that's in Report 92, and I'd encourage you to look at that. So, that's how we came to our conclusion. And -- and, you know, as Dr. Lockey had said, you know, we looked at this data set, you know, multiple different ways, and we feel it's quite robust from that standpoint.

What we didn't have in the prior 1990 time period is we didn't have the RWPs to demonstrate it was representative, the data set that we had before then. We just didn't have it. We -- they didn't do RWP monitoring. And they started doing that in 1991. So, there is data prior to 1991, but we couldn't demonstrate that those unmonitored workers were working alongside monitored workers. We were missing that piece. And to me, that is when the Board concluded that we had insufficient information in order to establish a coexposure model, such that we could estimate those doses .

Starting in 1991 is when we got those RWPs, and we could do that comparison, and couple that with the data set that we have. Does that answer your question?

MEMBER BEACH: Yeah. I keep going back to that slide 10 on John's presentation where it was 1997. I guess, I would have felt a little more comfortable if that presentation was back -- that same demonstration of the earlier years that you say you can do with the coworker modeling. But okay. I'll check. I have looked at 92, but I'll -- I'll re -- relook at it. Thank you.

DR. TAULBEE: Please do.

MEMBER CLAWSON: Well, that -- that, too, being said, Josie, this is also a time period -- Westinghouse just came in. Any of us that have dealt with contractors realize the first year an awful lot doesn't really get done.

The next year they start to implement some of their issues and so forth. This is one of the reasons why we came to -- to '92 on this. But I like -- I'd like Bob to bring up that, you know, his last slide of the percentages that we had in those time periods. Because this was -- this was one of the -- this was one of the bigger issues that I got into of -- of -- let -- let's just -- let's just say that we kind of came to a consensus. We shot for '92, but the -- Bob, have you got that screen up? Can you put that up?

MR. BARTON: I'm going to get it up there. My Acrobat just crashed.

MEMBER CLAWSON: Well.

MEMBER LOCKEY: Brad? Brad?

MEMBER CLAWSON: Yeah, go ahead.

MEMBER LOCKEY: Jim Lockey. I think -- yeah, we came to the end of, you know, we could say that we -- 1990 the data is adequate in 1990, but because of the -- I think Brad was right. The transition from one company to another, the compromise, you know, will allow for a year or two to -- to account for possibilities of -- of changes during that transition period, right? But the database is complete from '90 on. It's a complete database, but we were going to allow -- okay. We'll allow for that two year transition. That's how we came up with 12/92. Okay?

MEMBER CLAWSON: Okay. Okay. How are we doing on that, Bob?

MR. BARTON: Well, I have an error message I've never seen before with that screen share (indiscernible).

MEMBER CLAWSON: Well, that -- that being said, I guess, I -- I want to open it up to other Board Members to be able to question this, because I want to make sure that you realize -- there you go, thank you. Part of --

part of the reason of why I -- I went with the end of '96 was because in '97, that's when -- what's when they actually did close to 100 percent evaluation. Scientifically I was looking at the end of '96. '92, we're in there a little bit. I want to -- I want to bring this forth to the Board for them to be able to review this because it -- there is an awful lot of data out there. There's an awful lot of things to be able to take into consideration. I'd like you to be able to look at the last two work group presentations and what we went over on that because a lot of this comes into question. It comes down to us as the Advisory Board of what the cutoff is. And I know that we've got to do it with scientific relevance. And this is where Lockey has come in. And, you know, Lockey has said, you know, he's looking at the database is full. He feels that we can support the '92 cutoff and go from there. So, this is what I'm bringing the Board to, and the work group is bringing them for.

Go ahead, Lockey.

MEMBER LOCKEY: Josie, one of the questions I asked is that we go back and we ask NIOSH to do additional analysis. The reason I wanted to look at the TRACK data -- the reason I wanted to say is the subcontractor different than all the other workers. We always -- you know, the -- the thinking was early on, well, subcontractors are brought in, they're going to do the most hazardous jobs, or the potential exists that they're going to do the most hazardous jobs. Well, let's -- let's address that question and see if that's true. Is there any data in this database that indicates that, and we didn't find that.

Then the other question is well, what is --

MEMBER BEACH: And hey, Jim? Did all of you -- did the whole work

group agree with that?

MEMBER LOCKEY: I'm sorry?

MEMBER BEACH: Did the whole work group agree with that?

MEMBER LOCKEY: I'm just -- I'm just -- I'm just looking at the jitter data indicates there was no --

MEMBER BEACH: Right.

MEMBER LOCKEY: -- okay? So, if you don't agree with that, then you have to come up with recent data that says it's not right, not an opinion or my gut feeling is. You have to come up with some data that indicates that it's not right.

And then the second question is well, incidence data, was that captured? And, you know -- and Brad is right, the incidence -- the TRACK data is not routine monitoring data, but the TRACK data is important from a different perspective. If there's an incident, I want to know what was the result of that incident, and does the exposure modeling capture that? And the indication was it did. So, I don't have any incident data now that indicates there's an outlier or there's a bunch of outliers or the database is not capturing the outlier. So, I'm looking for data that indicates that this is not a valid database, and I can't find it. I've asked NIOSH different ways to look at it, and I can't find it. It's not there. It's a very rigorous database. It really is.

MEMBER BEACH: Okay. Thanks.

MEMBER CLAWSON: Any other questions, Josie?

MEMBER BEACH: No, that's it for me.

MEMBER CLAWSON: Okay. Are there any other Board Members, new,

old that have any questions? What we're going to probably do is the next full Board meeting, I would -- I would say that we'd -- we'd call this for a vote, but I wanted to get everybody's opinion of our cutoff of '92. And if there was any issues with that, if -- if -- so that we can address those in the next Board meeting.

So, that being said, are any other Board Members have an issue or questions on that? Dave or Loretta, anybody?

MEMBER VALERIO: Brad, I have a question, and it's kind of the same question that Dave Pompa asked. So, the graph that Mr. Cardarelli showed for the different years, and I didn't write down the -- the slide number, did they have -- I guess, my question is do they have that same graph for the various other radionuclides that were on site? Because what I remember about Savannah River Site was there were a lot of hazardous materials on site. So, I'm just wondering if they do create this coworker model, are they going to use a similar graph for all radionuclides?

MEMBER CLAWSON: I -- I -- John, correct me if I'm wrong, but I -- I believe this was just RWPs. This is -- the main RWPs were for uranium and plutonium if I'm not -- not mistaken; is that correct?

DR. CARDARELLI: Well, we have data on those 10 radionuclides, including external radiation and tritium. And yes, that was presented in the previous working group, but this was a summary presentation, so I didn't go through all 10 of those. So, we --

MEMBER CLAWSON: Okay.

DR. CARDARELLI: -- we can certainly get you that information and whether or not you would want a summary of all of these discussions since

2017.

MEMBER CLAWSON: Okay. Well, as -- go ahead, Jim.

MEMBER LOCKEY: Brad, I think your suggestion that many Board Members has -- has new insights on this, they -- they should get at least back to you right away so our subcommittee can address them and look at them in detail.

MEMBER CLAWSON: That -- that is correct. And if -- if -- if there -- you know, we tentatively put forth '92, the end of 1992, and that's what we're bringing forth to the Board. And my question to all the Board Members are, is this scientifically bounding? Is this a good representative of -- to be able to do a cutoff this -- and if there are questions with this, we have -- we have an awful lot of data that we have not brought forth to you that NIOSH has produced and SC&A has produced, and we can get the -- the right guidance to you, but we wanted to get this before the Board and then be able to take action with this at the next full Board meeting. And we'll have a discussion period of that -- before that and then go from there.

MEMBER BEACH: Oh.

MEMBER CLAWSON: So, Josie, I see you popped up.

MEMBER BEACH: Yeah. So, you are going to have another work group meeting prior to our next full Board meeting, or are you saying that you're not going to --

MEMBER CLAWSON: This is --

MEMBER VALERIO: -- vote amongst the --

MEMBER CLAWSON: This is --

MEMBER BEACH: -- the work group --

MEMBER CLAWSON: This is coming to --

MEMBER BEACH: -- point?

MEMBER CLAWSON: We're not going to do any more as a work group. We're --

MEMBER BEACH: Okay.

MEMBER CLAWSON: -- bringing this forth to the Board.

MEMBER BEACH: So, it is a Board recommend -- or a work group recommendation to the full Board even though you -- okay.

MEMBER CLAWSON: Yes, I --

MEMBER BEACH: -- I just wanted to clarify that.

MEMBER CLAWSON: Yeah. There --

MEMBER BEACH: Okay.

MEMBER CLAWSON: There was just some issues and I -- I --

MEMBER BEACH: Understand.

MEMBER CLAWSON: -- 100 percent agreed with Paul on this, but this is a work group recommendation to the Board.

MEMBER BEACH: Okay. I just wanted to clarify that. Thank you.

MEMBER CLAWSON: Okay. Without any other questions, I guess, I'll turn it back to you, Henry.

CHAIR ANDERSON: Thank you. Yeah, good. That's what I was going to ask. I think you need to come forward with that and put together the documentation for the background, the explanation on end of '92 because of the transition. I think that's important. And the RWPs, is that -- did they begin in '91 or '90? Is that -- is that correct? Or did they have those previously?

MEMBER CLAWSON: They -- go ahead Tim.

DR. TAULBEE: They began in 1991 is when they transitioned.

CHAIR ANDERSON: Okay. That's okay. I was just -- I mean, kind of the issue -- one issue is using all the data that you have, which is very impressive in the current period after -- after that, which then means you can -- you're using it to retroactively assign things where the RWPs weren't in existence. But I think you're -- you know, you bring it back and, I think, we've got a good background. I would be sure you pick out which of the other documents that are there. I was just as I was listening going back over some of the earlier ones and finding them. I think you did a good job kind of doing it in the most current period, but some of the other analyses, I think, are helpful. We don't need to go over them again, but I think you bring it forward, and I think you've got rationale sufficient for the end of '92.

MEMBER CLAWSON: Thank you, Henry. I'll turn that over to you and --

CHAIR ANDERSON: Now we're going to go on quick break.

MEMBER CLAWSON: Okay. Sounds like a good one.

CHAIR ANDERSON: Oh, the break just ended.

MEMBER LOCKEY: How long's the break?

CHAIR ANDERSON: How do people feel? We're now at three o'clock. We're supposed to end the break at -- we're actually eight minutes after 3:00. We want to go three to four? I'm not sure how much we're going to do with the work session, so do we want to take 15 minutes to get a breath?

MEMBER BEACH: Do we expect a petitioner for Lawrence Livermore?

MR. ROLFES: Josie, this is Mark Rolfes. I have not heard if the petitioner plans to be present.

MEMBER BEACH: Okay. That's usually why we stay on schedule, so I was curious. Thank you.

MEMBER CLAWSON: Yeah.

MEMBER LOCKEY: So, 15 --

MEMBER CLAWSON: Hey, Andy, --

MEMBER LOCKEY: --minutes. 15 minutes.

CHAIR ANDERSON: 15 minutes, that's good. Okay. So, let's make it 2:20.

MEMBER LOCKEY: Perfect. Okay.

CHAIR ANDERSON: We're 2:20 my time, --

MEMBER BEACH: Great. Thank you.

CHAIR ANDERSON: Yeah.

(Whereupon, a break was taken from 3:09 p.m. EST until 3:20 p.m. EST.)

DR. ROBERTS: And I want to do a quick roll call, starting with Anderson?

CHAIR ANDERSON: Present.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: Clawson? Brad, are you back? Okay. Frank has -- has left the meeting.

Lockey?

MEMBER LOCKEY: I'm here.

DR. ROBERTS: Okay. Martinez, I believe, she said she would be back around 3:30, but Martinez are you here yet?

Pompa?

MEMBER POMPA: Yes, ma'am, I'm here.

DR. ROBERTS: Valerio?

MEMBER VALERIO: I'm here.

DR. ROBERTS: And Ziemer?

MEMBER ZIEMER: Yes, I'm back.

MEMBER CLAWSON: Rashaun, I -- I'm on. I was just pressing the wrong button.

DR. ROBERTS: Okay. Great, thanks, Brad. Okay. I think we're good to go.

Over to you, Andy.

LAWRENCE LIVERMORE NATIONAL LAB (LLNL) ADDENDUM

CHAIR ANDERSON: Okay. So, Mark you want to take over with the Lawrence Livermore agenda? And it's up on the screen, so we're good to go.

MR. ROLFES: Okay. Good, glad you're able to see it. So, good afternoon everybody. My name is Mark Rolfes. I'm a health physicist, a research health physicist with NIOSH division of compensation analysis and support. I'm here today to present to you the findings of the evaluation report addendum for SEC-0221 Lawrence Livermore National Laboratory.

And this covers the years of 1990 to 1995.

Lawrence Livermore National Laboratory is a DOE covered facility from 1950 through the present. Their original mission was the development of thermonuclear weapons, and they also had a diverse scientific and engineering staff that was involved heavily in different research areas.

Some of these activities included the design of nuclear weapons, the testing, and associated research atomic vapor laser isotope separation development, fusion research, global security research, and strategic defense, as well as national security research. Lawrence Livermore National Laboratory is comprised of two sites.

The first main site is a 1.5 square mile main laboratory located at 7000 East Avenue in Livermore, California. And the second site is Site 300, an 11 square mile explosive test site located 15 miles southeast of Livermore near Tracy, California. The main laboratory consists of approximately 500 buildings and structures, and approximately 50 of those buildings contain radio -- radioactive materials areas.

So, the class designation history for Lawrence Livermore, we've got a couple of special exposure cohort classes that have been designated. The first one that we had received was SEC-092, and a class was added to the SEC for 1950 through 1973 based on infeasibility to reconstruct internal dose from intakes of fission and activation product isotopes. The class was initially limited to workers who were monitored or should have been monitored. For SEC-0163, a class was added to the SEC to eliminate the clause or distinction of who were monitored or should have been monitored for the same time period for 1950 through 1973.

SEC-0221, a class was added to the SEC for 1974 through 1989 based on the infeasibility to reconstruct internal doses from U-233 exposures in Building 251. In the initial evaluation of SEC 0221 DCAS qualified the petition due to concerns about the adequacy of Livermore's urinalysis methods for gross alpha and uranium. The evaluation period was from 1974

through 1995, and the initial evaluation report was approved on February 12, 2016. In the interest of timeliness, the scope was limited to presenting a dose reconstruction and feasibility for potential intakes of Uranium-233 in Building 251 from 1974 through 1989. The specific concern was the fabrication of bomb fraction tracers that contained Uranium-233. This work was only performed at Building 251.

The infeasibility bases were a lack of uranium urinalyses for Building 251 workers and the inability to determine if U-233 intakes would have been detected by routine in vivo counts. The air monitoring was deemed insufficient at that time. The evaluation was truncated after 1989 due to a change in U-233 usage in Building 251 based upon material accountability records. On March 24, 2016, the Advisory Board voted to add a class to the SEC for all workers and all areas, including Site 300 for 1974 through 1989. There was no formal work group during the initial evaluation.

The initial evaluation report reserved the evaluation of internal dose contributors -- contributors other than U-233 for 1974 through 1989 and all internal dose contributors for 1990 through 1995. The initial evaluation report stated that external doses could likely be reconstructed for members of the evaluated class for 1974 through 1989, but reserved a formal determination. The initial ER also determined that medical doses could be reconstructed for 1974 through 1989. A medical dose determination for 1990 through 1995 was reserved.

Given the all-inclusive nature of the special exposure cohort class for 1974 through 1989, the reserved items from the initial evaluation report amounted to an evaluation for all dose contributors for 1990 through 1995.

Site records captured following the initial evaluation included daily logs kept by the Building 251 radiation control technician. Reviews of the daily logs showed that U-233 tracer fabrication continued post-1989, albeit it was very infrequently. An initial evaluation was needed to determine if doses from potential intakes of U-233 by workers in Building 251 could be bounded for the period of 1990 through 1995.

We also needed to determine if there were other internal dose contributors for which internal dose could not be adequately reconstructed or bounded during the 1990 to 1995 time period. We also needed to confirm that external dose reconstruction was feasibility (sic) for 1990 to 1995 and confirm that medical dose reconstruction was feasible for the 1990 to 1995 period. Emphasis remained on internal dose contributors. There were no external dose reconstruction issues that we identified.

So, NIOSH has been involved in visiting the site quite -- quite a bit. We've made six site visits to Livermore starting back in 2017. NIOSH captured and reviewed records from the building files collection maintained by the hazards control group from the Lawrence Livermore National Laboratory archives from the Livermore records center. We also reviewed material accountability records held by the materials management group. We've reviewed environmental safety and health records provided by the Lawrence Livermore National Laboratory radiation protection group. An in-person meeting was held with the leads of the Lawrence Livermore National Laboratory nuclear test data group, and we conducted an on-site interview with a cognizant expert.

Over 8,000 Lawrence Livermore related documents are located in our

site research database. The available site records include site-wide and facility-specific radiation protection program records, facility safety procedures and related documents, the "Symphony" data set, which contains in vitro bioassay results from the evaluation period, a chronological log of in vivo counts performed from 1988 through 1995, which lists the individuals and the type of count performed by date, a reference compiled by the Lawrence Livermore National Laboratory nuclear test data group that gives consolidated trace constituent data for bomb fraction tracer isotopes. The summary of the January 2024 interview with the cognizant expert is also included in our records.

So, some of the key Lawrence Livermore National Laboratory facilities and operations include Building 251, the heavy element facility. Work here involved the fabrication of tracer sets for nuclear weapons testing. Tracer fabrication was infrequent after 1989 and completely ceased after 1992. We had Building 151, the dissolving wing, and the work that was conducted at this facility involved the preparation and analysis of core and gas samples from nuclear device testing at the Nevada test site.

The Atlas process research buildings include Building 175, 177, 490, and 491. The Building 321 complex was involved in the fabrication operations with uranium, both natural and depleted. Building 331 was the tritium research facility. Building 332 is the plutonium facility, which conducts fabrication and metallurgy research.

There is the hazardous waste management complex, which includes Building 419, 514, and 612. We have Site 300, which is the explosive test area, and this location contains firing bunkers equipped with accelerators

and flash X-ray devices. This site is involved in nonnuclear testing of explosives and proxy devices containing depleted uranium and tritium. Other research and development facilities include Buildings 131, 222, the 231 Complex, Building 281, and Building 343.

Lawrence Livermore's internal dose monitoring was governed -- governed -- excuse me -- by the Lawrence Livermore National Laboratory Internal Dosimetry Program Manual. The purpose was to ensure that internal doses were as low as reasonably achievable and that internal monitoring was compliant with DOE Order 5480.11. Routine urinalyses were performed for gross alpha, gross beta, plutonium, element -- elemental uranium, and tritium. Routine in vivo counting was also done as well. Some were chest counts, some were whole-body counts, some were lung counts.

Workers were identified for bioassay by the field teams and resident RCTs. In the data available to us, we have the "Symphony" data set, and this data set is in vitro bioassay results through 1995. It does include some tritium bioassay results, but those may be incomplete in "Symphony."

Tritium data were recorded in a separate data system, and those tritium data are present in DOE response files of the claim records that NIOSH receives for dose reconstruction. There was no consolidated source of in vivo bioassay results. The chronological log that we have allows us to verify that in vivo counts were received by or -- were received by specific individuals.

The bioassay results in the "Symphony" data set show both routine and incident-related bioassay. Most bioassay results within the year were for uranium. The number of results for plutonium, gross alpha, and gross

beta were similar. Workers in the principal facilities of interest received routine urinalyses, and all facilities were represented. Analytes we found were appropriate for the potential sources to which the workers were exposed. The data are tabulated by calendar year, and they are included in the addendum of this evaluation report.

So, for our evaluation of potential intakes of U-233 during the time period of 1990 to 1995 in question, we know that tracer sets were fabricated in Building 251 until 1992. This fabrication work occurred infrequently during 1990 to 1992 as the U.S. nuclear testing program wound down. The trace constituent data for tracer isotopes provided by Lawrence Livermore National Laboratory shows us the U-232 content of the U-233 oxide that was used.

The U-232 content was used to determine the committed lung dose associated with an acute intake of Uranium-232 and Uranium-233, resulting in a U-232 lung burden equal to the minimum detectable activity for the Lawrence Livermore National Laboratory lung counter after six months. Lead-212 was assumed to be in equilibrium with the U-232, so the minimum detectable amount for Lead-212 was used. We also assumed that the U-232 remained bound to the U-233 in the lung. The committed lung dose was, approximately 49 rem and the highest nonmetabolic organ dose was less than 100 millirem. Keep in mind that the committed dose is spread out over 50 years.

DCAS asked the ORAU Team to confirm if workers with the highest internal exposure potential from U-233 also received routine chest counts. The Building 251 RCT logs were reviewed page by page to determine who

worked in this facility. The in vivo counting log was used to verify those individuals received annual chest counts. DCAS asked the ORAU Team to interview individuals to determine if there were others that had exposure potential. The ORAU Team worked with Lawrence Livermore National Laboratory to arrange for interviews. The interview took place at Lawrence Livermore National Laboratory in January 2024 in a secure conference room with members present from NIOSH, ORAU, and a member of the Advisory Board present.

The individual interviewed was an expert in his subject area and the following information was obtained: U-233 tracer sets were fabricated in manipulator cells. There was no internal exposure potential until the sealed capsules were passed out. Respiratory protection was worn during pass-out operations, and the individual did not recall any contamination events involving U-233. The individual stated that the workers with the greatest internal exposure potential were the radiochemists.

The individual also stated that Building 251 staff received annual chest counts and whole body counts every two years. The individual also stated that they submitted routine urine samples. DCAS was satisfied that Building 251 workers had the greatest internal exposure potential and received routine chest counts.

For the evaluation of ambient dose reconstruction feasibility for 1990 to 1995, Lawrence Livermore performed ambient air monitoring on the main campus and Site 300. The Lawrence Livermore National Laboratory environmental dose technical basis document provides annual median air concentrations for plutonium, uranium, and tritium for 1971 through 2005.

Separate tabulations are provided for the main campus and Site 300.

There are no dose reconstruction and feasibility issues that were identified for ambient internal dose. For internal dose reconstruction feasibility for 1990 through 1995, we have routine analysis of urine samples that show that both routine and incident-related analyses are available. The principal facilities were represented in that the analytes were appropriate for the potential internal exposure sources.

Unknown intakes of U-233 were detectable via chest counting at a reasonable level of committed dose. Routine chest counts were verified for workers that had the highest internal exposure potential from U-233. Ambient internal doses can be used to -- can be reconstructed using the environmental dose technical basis document.

The conclusion: Dose can be estimated with sufficient accuracy for all internal dose contributors during the 1995 -- during the 1990 to 1995 time period. For the evaluation of external dose reconstruction feasibility from 1990 to 1995, the initial evaluation report determined that external dose could likely be reconstructed for 1974 through 1989. No external dose and feasibility issues were ever raised.

Lawrence Livermore National Laboratory replaced film badges with TLDs in the late 1960s, and DOELAP compliance was mandatory before 1990. The external dose technical basis document provides facility-specific information for applicable beta gamma and neutron energy bins, including for Site 300. Area monitoring was also performed on both the main campus and at Site 300.

The environmental dose technical basis document provides annual

average and maximum gamma and neutron doses for the main campus and Site 300. No external dose contributors for which dose cannot be reconstructed with sufficient accuracy were found. For the evaluation of medical dose reconstruction feasibility from 1990 through 1995, the initial evaluation report determined that medical dose could be reconstructed for 1974 through 1989 using the occupational medical dose technical basis document.

Two upgrades to Lawrence Livermore National Laboratory's occupational X-ray equipment occurred in 1990 to 1995. These upgrades are documented and accounted for in the occupational medical X-ray dose technical basis document. Occupational medical X-ray dose can be reconstructed for the 1990 to 1995 time period.

This slide summarizes the feasibility findings for SEC-0221 the addendum and the sources of internal exposure of Uranium-233, plutonium, and americium, mixed fission products, elemental uranium, and tritium. We found that for the period of 1990 to 1995, that dose reconstruction is feasible for these internal exposure sources. The feasibility findings for external sources for the 1990 to 1995 time period, NIOSH found that dose reconstruction is feasible for beta gamma exposures, neutron exposures, and occupational medical X-ray exposures.

I did want to thank a couple of ORAU people that really did a lot of the heavy lifting on this site, because I don't know if you're aware, you probably realized, that this initially wasn't my site, and it sort of fell on my lap when some -- a former employee left our division. Anyway, I certainly appreciate all the work that ORAU has completed, and I'd be willing to take any

questions.

CHAIR ANDERSON: Thanks, Mark. Any questions people have?

MEMBER POMPA: Yes. Mark, --

MEMBER BEACH: Yeah.

MEMBER POMPA: Mark, this --

CHAIR ANDERSON: Go ahead, Dave.

MEMBER POMPA: Mark, this is David Pompa. You've answered my question I was going to ask you about the TLV, TLD. Now, in every place the TLDs, the TLVs, the data -- do you still have the data from the old TLDs?

MR. ROLFES: Do we have raw data from the TLDs? Is that what your question is?

MEMBER POMPA: Yes, sir. The dosimeters?

MR. ROLFES: We -- when NIOSH -- we may not have the raw data, but when we receive a DOE response file for an individual, we will receive the information about a person's external exposure measured by that TLD. I do not believe we have -- we focused this evaluation on the 1990 to 1995 time period because we already had SECs up through 1989.

MEMBER POMPA: Okay. One more question, Mark. You mentioned, you know, your analysis routinely. Is that a monthly or a bimonthly? What is routinely?

MR. ROLFES: Routine, it would be based upon the individual. So, it was a routine sampling program and then as well as an incident-driven sampling. So, a person normally when they begin working in radioactive materials would receive, like, a baseline check of -- if you're talking about your urinalysis, you typically would give a baseline to see what -- like, if

you're working with uranium, for example, you would look to see what their baseline value in their urine before being exposed to radioactive material is and then become a participant in a routine program. If you're routinely working with radioactive materials, those bioassay results are collected to make sure that you're not being overexposed, essentially. And then additionally, if there's an incident, that can prompt another. So, there's -- there's various types of reasons that bioassays would be collected.

MEMBER POMPA: Gotcha. And Mark, one more last question. You mentioned plutonium, uranium, and tritium, but they're encapsulated, these radionuclide material; is that correct?

MR. ROLFES: Yes and no. It all depends. Some -- some may be encapsulated, and some may not be.

MEMBER POMPA: Okay. Well, we can't discuss (indiscernible), but that's okay. Good to hear from you. It's been 20 years or so.

MR. ROLFES: Yeah, yeah. It's been a long time.

MEMBER POMPA: Thank you much.

CHAIR ANDERSON: Other questions?

MEMBER BEACH: Yeah, Andy. This is Josie. I had one back on -- back on slide 25, you talked about the routine urinalysis and the chest counting. What percentage of that, the bio and the chest count, do you have for the individuals in 1990 to 1995 for internal?

MR. ROLFES: What percentage? I believe, we have a --

MEMBER BEACH: Yeah.

MR. ROLFES: -- pretty complete set, because there's not a large number of people that were working with this material.

MEMBER BEACH: Okay. So, you feel like it's a pretty complete set for internal?

MR. ROLFES: Yes. Yes, I do. During this time period, I do.

MEMBER BEACH: Okay. Thank you.

CHAIR ANDERSON: Other questions? Comments?

MEMBER LOCKEY: Yeah, I have a -- Jim Lockey -- couple questions. What was -- was the compliance 100 percent with the sampling program?

MR. ROLFES: We had heard from an interviewee that there was some noncompliance, but this was back in the earlier time period, like, during the Cold War time period in the '60s. But during this time period, for the 1990 to 1995 time period, I have not heard of any issues with compliance to my knowledge.

MEMBER LOCKEY: And the other question.

(Whereupon, an unidentified speaker interrupts.)

MEMBER LOCKEY: Jim Lockey, just one other question.

(Whereupon, unidentified speaker continues speaking.)

MEMBER LOCKEY: Between the buildings and the complexes, were the ice -- were the workers isolated to the building they were assigned the whole time or was there movement between the buildings?

MR. ROLFES: There was a log of who entered the building, and we focused on Building 251 because that's where this material was handled. So, yes, I imagine there would be some working between buildings, but it does not sound like that is the case. There -- there doesn't appear to be any undocumented worker that entered Building 251, I guess, is a better way to say it.

MEMBER LOCKEY: Thank you.

MR. ROLFES: Of course.

MEMBER CLAWSON: Hey, Mark. This is Brad Clawson.

MR. ROLFES: Hello, Brad.

MEMBER CLAWSON: How are you doing?

MR. ROLFES: Not too bad.

MEMBER CLAWSON: Actually, I'd like to -- I'd like to thank you because I was a Board Member that went down to that, and I highly suggest if any of the Board Members ever get to be able to do this -- this was very, very informational to us. I really greatly appreciated the interviews that we got to do. These weren't classified interviews, so there was a limitation on that.

But Mark, my question to you is, on those interviews -- so, have they D&D'd that building yet?

MR. ROLFES: I believe that it was done in early 2000s. I don't know if Pat McCloskey is on the call or if Bob Burns (ph) -- if they would be able to provide that answer about the time period for cleanup and D&D of Building 251?

MR. BURNS: I --

MEMBER CLAWSON: Well, I was mainly -- and I was mainly thinking -- excuse me. I didn't mean to interrupt whoever it was. I was mainly looking at it because I remember in the interview, they were talking about the glove boxes, the containment that they had, and it was my impression that they were D&D'd in like the 2000-2002 era.

MR. ROLFES: Is Bob or Pat able to chime in?

MR. BURNS: Yeah, Mark, I -- this is Bob Burns. Good day all. This is Bob Burns. I'm a health physicist for ORAU Team, and I have no conflicts with Livermore.

Brad, to your question, you're -- we have the same recollection. I think what happened in the early 2000s was they de-inventoried the facility, the -- so that it was no longer a DOE nuclear facility. It became a non-nuclear facility. And then more recently, within the past couple of years, I think, the formal overall D&D of that building has -- is either underway or is getting underway. So, it's kind of a phase -- you know, they phased it out, in essence.

MEMBER CLAWSON: Yeah, you know, you're right. Now that you bring that up, because I remember the D -- was no longer a DOE facility. And I -- but what I was wondering is if we have ever got any information on what the -- those glove boxes were actually showing, as far as contamination levels and so forth. I know that there was quite a bit of discussion about the -- the ripped -- ripped gloves and so forth and some of the boots and stuff like that. So, I just wanted to find out what we were actually dealing with when they went to D&D this facility. And that'd be something that I'd kind of like to follow up on. But that'll -- that'll -- that'll be for another day, but I do appreciate you getting on and helping my memory, too.

My question is, Bob Barton, this is a question for you. So, has NIOSH -- has SC&A been able to review this information, and do we -- do we need to task SC&A?

MR. BARTON: SC&A has not because we have not yet been tasked.

MEMBER CLAWSON: Okay.

MEMBER ZIEMER: That was my question also. I just wondered procedurally where -- where this stands. Is this going to SC&A next?

MEMBER CLAWSON: That -- that's what I would suppose. We've kind of -- Paul, we're kind of in an influx with losing some Board Members, gaining some.

So, Rashaun, I was wondering where -- I'm a work group member, if I could task SC&A to review this information and go on from there? Or I --

MR. NELSON: This is Chuck. This is Chuck. I was looking at the work group members, and Dr. Lockey is listed as the chair.

MEMBER CLAWSON: Oh, okay. There you go, Jim.

MEMBER LOCKEY: Hey, Brad, you were handling it, so I agree with you. SC&A should be tasked to look at the data.

MEMBER CLAWSON: Okay.

MEMBER LOCKEY: I didn't see -- I didn't see any reason to interrupt you, Brad.

MEMBER CLAWSON: Well, thanks, Jim. I appreciate it.

MR. NELSON: I apologize. I apologize.

MEMBER CLAWSON: No.

MEMBER LOCKEY: And I was going to ask you. I thought you were the one who attended the meeting, because I didn't. I don't have a security clearance, so I couldn't go.

MEMBER CLAWSON: Actually, I really want to put this out to all of these Board Members and even our old ones. This -- being able to visit these sites and being able to look at this data firsthand and talk with the

people, it's -- it's absolutely amazing. And as a country we should really be proud of what we have accomplished. So many times we're always looking at the negative side of things. But it is totally -- it's -- it's a marvelous thing. And to be able to talk with these individuals is just -- it's a wonderful experience, and I hope that all of us can take that opportunity.

CHAIR ANDERSON: So, it's --

MEMBER CLAWSON: Turn it back over.

CHAIR ANDERSON: Yeah, I would say we probably need a -- have any new members come on, we may want to add someone to your group here.

But Rashaun, --

MEMBER LOCKEY: Andy?

CHAIR ANDERSON: -- okay with tasking?

Yeah, go ahead Jim.

MEMBER LOCKEY: Yeah. Everybody on the committee has been around for a while, so --

CHAIR ANDERSON: Yeah.

MEMBER LOCKEY: -- so, on this committee, we have -- there's four Board Members currently.

CHAIR ANDERSON: Oh, yeah. I was mixing it up with Berkeley. Yeah.

MEMBER LOCKEY: So, we're in good shape here.

CHAIR ANDERSON: You're in good shape.

MEMBER LOCKEY: We're not going to have a subcommittee meeting until SC&A has a chance to --

CHAIR ANDERSON: Right.

MEMBER LOCKEY: -- at the data.

CHAIR ANDERSON: Right.

MEMBER LOCKEY: Okay.

CHAIR ANDERSON: Rashaun, okay with tasking?

DR. ROBERTS: Yes, that's fine.

CHAIR ANDERSON: Okay.

MEMBER FRANK: And I'm sorry to interrupt. This is Arthur Frank. I just want to put on the record that I've rejoined, and I'll be able to be at the rest of the meeting having rejoined at 3:45. Thank you.

CHAIR ANDERSON: Thank you. Welcome back.

MEMBER FRANK: Thanks, Andy.

MEMBER VALERIO: This is Loretta. I have a question.

CHAIR ANDERSON: Go ahead, Loretta.

MEMBER VALERIO: So, and Brad beat me to the punch by asking about the decontamination, so thank you, Brad, for that. But between the time -- and I'm trying to recall what the phrase "standby mode" means, and so, that's one question. And the second question is while the building was in a standby mode between 1995 and the time that they did the decontamination at roughly five years, was additional work completed in that building, like, maintenance or anything?

MR. ROLFES: This is Mark, and I'm going to defer to Bob if he's able to provide an answer to that. When testing ended in 1992, I think, work in Building 251 also stopped, but Bob, are you able to address the question?

MR. BURNS: I -- I'll say this: I think we have the same understanding. I believe -- you know, work in that facility, base -- basically,

ceased. We walked it down during a site visit, I want to say -- well, some years ago, but it was just -- you know, it was in a -- after they'd done the de-inventory -- I don't think they just walked away from it, but I think there was very little going on, you know, operationally.

As far as any, you know, U-233, or you know, potential for U-233 exposure, I think, you know, that, basically, went away after 1992, and it was pretty limited prior to then. I don't know if that answers the question or not.

MEMBER CLAWSON: Bob and Mark, this is Brad. If I remember our interview right, it did stop in '92, but they still had to monitor the building and do -- they had -- they had RADCOM that would come in and do systematic surveys every so often. This is where they had the log book of who went in and who went out. That's when this was implemented so that they could control -- they could show -- they could control this access until later on.

MR. ROLFES: Thank you, Brad.

CHAIR ANDERSON: Any other questions? comments? Well, thank you very much, Mark. And thanks for stepping in and picking it up.

MR. ROLFES: Thank you.

CHAIR ANDERSON: Now we'll move it forward and hopefully get it to the committee fairly quickly. So, nothing else for Lawrence Livermore.

We can move on to the Board work session and work group reports.

BOARD WORK SESSION

CHAIR ANDERSON: We just had the Savannah River Work Group

Report. Brad, you want to talk about any of your others?

MEMBER CLAWSON: Yes, I do. Let me get my screen up here. As everybody knows, we've received an awful lot of data on Pinellas. Pinellas is picking up a little bit of speed -- speed. Steve, I'm going to ask you to give us an update here in a few minutes.

But I also wanted to -- we got a request from Dr. DeGarmo. I think that it's important that we try to set up worker interviews, but we -- we want to get through a substantial amount of data that was given to us since the last work group. I want Dr. DeGarmo to understand that we do understand the importance of being able to interview these people and that -- that there is not much time and that we want to be able to try to address those things and get down there.

But I -- I would say that most of the fault falls onto me, because we wanted to get through the data so that when we set up these interviews that we will be able to ask the right people and be able to do the right interviews. I have a feeling that one of the ones that I want to is some of the classified interviews because have a better understanding of what went on inside of Pinellas. Because it's -- in my opinion, it's showing that there was a lot more going on there than originally, I thought, was going on.

With that being said, I'm going to ask Steve Ostrow if he can, kind of, give us an update of where we're at going through the data and going from there.

DR. OSTROW: Okay. Hi, this is Steve. Thanks for the introduction, Brad. I'll try to -- this is going to be a -- a verbal update of our progress.

Our last update was on the August 8th Board meeting. So, this is sort

of what's happened since then. I just wanted to have, like, a caveat before I begin saying anything, that our work -- all our work is ongoing right now, and it's largely unreviewed internally. I've been doing work, and we have a few other people from SC&A doing work on Pinellas. And so far, it's been fairly individual. So -- so, we -- any conclusions that we've reached so far are preliminary and subject to change. So, this is not definitive and don't take it as so, please.

All right. So, I'll begin with a little background information, mainly for Board Members who might not be familiar with Pinellas or Board Members who forgot about Pinellas by now. There's a lot of (indiscernible) we've been doing.

So, Pinellas Plant is located near Clearwater, Florida, and it operated from 1957 through September 1994 with subsequent D&D operations. The peak employment was a little under 2,000 workers. It was a good-sized operation. The main products of interest, for us anyway, were neutron generators, which were part of the triggering mechanism for nuclear weapons that used tritium to produce 14.1 MeV neutrons from a deuterium-tritium fusion reaction, and radioisotopic thermoelectric generators, RTGs, that used Plutonium-238 as the heat source. The Plutonium-238 was strictly encapsulated and received at Pinellas from a different -- from a different weapons complex site. So although, Pinellas used the plutonium sources, they didn't actually construct them themselves. They received them from the outside.

In addition to the production activities, which were their two main areas of concern here, Pinellas also conducted some R&D activities, usually

under contract to the DOE and its predecessor agencies, Albuquerque Operations Office. So, that's a little bit of background on Pinellas.

The object at hand is reviewing SEC-00256 that the -- we've been working on for a while. And just briefly, NIOSH qualified the SEC period from January 1, 1957, through December 31, 1990. NIOSH produced the SEC petition -- petition evaluation report on October 13, 2021. Excuse me. Where was I? Oh, yeah. NIOSH produced the petition evaluation report on October 13, 2021, and we responded with an interim review report on June 16, 2023. In addition, there have been several work group meetings over the last couple of years to look at things. We've been busy at work, NIOSH has been busy at work, and the work group has been busy reviewing everything.

So, after the introduction, now, what activities are we doing primary? This is where the update's going to be. The first area, which is of primary concern, is reviewing the petitioner materials and concerns. As Brad mentioned, we have a lot of material to review. We have been, and this is very important because the petitioners are the clients sort of for this whole exercise.

The authorized petitioner representative, Dr. DeGarmo, who was mentioned before, submitted many documents over the past few years to the Board in support of the goal of the petitioners of having the Board uphold the petition. So, in order -- what are the activities that we're doing? In order to ensure that all petitioner issues have been addressed and to identify and investigate any items of potential concern, SC&A has been examining all submitted documents to date. I emphasize the word all.

We're reading everything.

And we arranged the convenience of three different batches. The -- the first batch were discussed -- those were the ones discussed in NIOSH's evaluation report of October 19 -- of 2021 and our interim report of June of 2023. So. Those were already discussed.

The second batch were the ones submitted from 2022, approximately, to September 2024. So, it's recent. All in all, there were 57 documents submitted in that time period. The third batch was a large submissive -- submissive -- submission of the documents by Dr. DeGarmo in September 2024, so very recent. And this was big. The files consist of 75 zipped folders, almost 900 megabytes total, arranged by subject. And each of the 75 folders contains documents for a total of -- for a total number of documents in the high 100s. We haven't finished reviewing all of them, so this is an estimate, but it's easily in the high 100s of individual documents.

And there -- in addition, there's one additional submittal that we just received recently in the last couple of weeks from Dr. DeGarmo. So, one of the activities when you have that many documents, you have to have some way of arranging them. As I mentioned in our last update, we created tables for all the documents in the -- for the two large post-interim review report batches. And for each of the documents, we give information about each one, the name of them, when they were submitted, what the content is, and so forth and so on. And we also present SC&A's preliminary assessment. As I said, we read every one, and we're writing down what we see.

And part of the assessment is just a little triage of whether the

contents are useful for the SEC evaluation review. Some of them are duplicates of other documents that I've said before. Some are totally administrative in nature. And some can be -- can be characterized as too far down in the weeds to be useful, and I'll describe what I mean by that later. So, our progress: We finished the table for the 2022 to September 2024 submittal. It was still in progress at our last August of 2024 updates. We finished it. But it hasn't been really review -- it's more of a working document. It hasn't -- it's not ready for prime time to go to the rest of the world to see it yet. And so, we're currently working on the very extensive September 24, 2024, submittal, reading and assessing every document that we have.

The documents, just to -- brief characterization. They consist of lots of different things. They're reports, lists, diagrams, organizational charts, personnel rosters, photos, emails, newsletters, and technical and non-technical documents as well. So, it's a real potpourri of things that we have. And just for example, the large data dump that we had has contract folders. There are 17 of them. Contract -- they're called contracts folders 1 to 17. So, we have looked at that carefully.

These folders, 17 folders, contain 92 documents in total. All appear to be related to General Electric neutron devices. That was the operator of the Pinellas for a long time -- to their contracts. Many are very specific, detailed, GE reports on manufacturing, testing, and research operations on various parts, processes, and devices. And in general, they may not provide useful SEC-related information. A lot of the information is interesting if you really want to get into the real nitty-gritty of plant operations. They may not

be very significant for us.

So what's our progress? We've reviewed approximately 75 percent of the September 2024 documents so far. And as I mentioned, we've finished reviewing all prior submitted documents. We expect to finish the total review sometime in January, at least for internal consumption. And we'll have to decide with the work group. It's a lot of valuable information there. What do we do with it? Do we keep it to ourselves to help us find information on different subjects, or do we share it with the larger group? So, we'll have to decide at some point what we actually do with this information.

We -- in addition to the government contracts and the contracts folders I just mentioned, previously we had -- we had received about -- a list of two thousand -- 200 government contracts contained in 58 pages sent earlier in September 2024 and found that, in general, most of these contracts were related to neutron generators and tritium issues, but a lot were concerned with basic nonradiation-producing research involving metals, ceramics, adhesives, testing procedures, and results, etc.

For example, in one report -- there's a real detailed scientific report about some different adhesives that are used to hold part of the assembly together under different environmental conditions. And that's interesting to some extent, but not really that applicable. That's what I meant by down in the weeds. Our thoughts so far are that we didn't find anything unusual or new to Pinellas contained in these contracts, considering that Pinellas routinely handling tritium and 14 MeV devices as part of their main product line.

None of the articles or either none or hardly any of the articles address actual radiation exposures in these projects, but the normal external and internal health physics monitoring would cover any that might have arisen. Of course, one of the jobs is, as at any (indiscernible) site, HP monitoring in general needs to be verified at Pinellas. So, we assume that all these sources were probably accounted for. The areas and the personnel that were exposed would have been monitored, but you can believe it, but you have to really check to make sure. So, that's part of the job. And that's been done to some extent by NIOSH in their -- their reports and in our reports, too. That's ongoing.

Another area of major research (indiscernible) is on plutonium in general. Plant used Plutonium-238 as a heat source in RTGs. And that's a major focus of our investigation, where and how the plutonium was handled, whether any was released, and whether workers were exposed to it, and also whether they were monitored for any potential exposure. So, we examined all the available bioassay data which -- from urine analysis, which showed that 100 percent of the results were below the reported minimum detectable level, the MDL. Therefore, we don't believe that there appears to be any evidence of personnel intake of plutonium. Unless we see something to the contrary, this seems to be the -- the case.

We've also reviewed all the plutonium environmental data that's available, including those referenced by Dr. DeGarmo in her submittals, chiefly from the environmental monitoring reports presenting 1980 and 1981 measurements. They were available. These are annual reports that the plant produced routinely that has different categories. So, they do

environmental monitoring. Environmental means outside the plant fence boundary. And it wasn't just radioactive. It's any potentially hazardous material that they're looking at.

After reviewing this carefully -- and this, we had a lot of discussions in-house here, that we believe there's no evidence in reports that any plutonium was released to the environment as all the readings were within background levels. In any event, what does it mean background levels? It should be noted the yearly reports are concerned, first of all, with potential environmental not occupational exposures to plutonium.

The -- their -- there're small quantities of plutonium are found naturally in the environment -- that's why you have a background -- primarily from two sources. It's due to neutron captured by Uranium-238, which is present in various concentrations in the soil. There's a little bit of misconception that uranium is rare. It's not. It's all over the place in all of the soils and rocks and so forth. It's just usually not in a concentration high enough to make it worthwhile digging up, but there's uranium everywhere.

So, there's a decay chain where Uranium-238 -- well, it's not a decay chain. U-238 can absorb the neutron and produce plutonium. This is the -- the processes using production reactors to generate plutonium. So, and the -- there's also concentration, which is varying in the soil due to nuclear weapons testing fallout. And that's well known. It's all over the country, the world, probably. It was due to nuclear weapons testing.

So, the two of them comprise a non-zero background presence of plutonium varying by location, but unrelated to nuclear facilities operation, meaning that the same general background would be present away from the

Pinellas Plant. So, as part of this exercise, in conjunction with examining environmental plutonium data, we're also researching different -- different isotopic ratios of plutonium including RTGs versus plutonium in the environment from nuclear weapons testing fallout. This is a well-studied field. A lot of papers on it.

It's -- if you -- it's related to if you find plutonium somewhere, where did it come from. And the -- apparently, the plutonium used in RTGs has a different isotopic ratio of the different plutonium isotopes than is present in the nuclear weapons testing fallout. So, we're doing some research on that to conclusively determine whether the -- any readings off-site came from the plant or were just there in the soil. So, that's a -- plutonium's a major issue that we're looking at.

One more issue that we were looking at, issues matrix. We had promised at one of the work group meetings that we'd create an issues matrix for tracking purposes, and we just -- which we did, and we distributed the comment on July 15, 2024. My SC&A teammates maybe can correct me here, but I don't believe we received any comments, but we'll revise the table as necessary.

I didn't work on this particular table, so I'm not sure. I didn't follow exactly what became of it other than we sent it out for comments. Does anyone on the team know anything?

MS. GOGLIOTTI: Yeah. This is Rose. We did send it out. I don't believe we received any comments back, but in the past year, the new BRS -- or the old BRS has become available to us again. So, we did load some of the findings into that BRS and have started populating it. However, we were

holding off on entering everything until we did receive comments back or if NIOSH doesn't have any comments, that would also be sufficient, and we can move forward.

DR. OSTROW: Thanks a lot, Rose. When I was writing this -- some notes last night, I couldn't remember or find, you know, what actually happened to it. I'm glad you mentioned the BRS. It's been so long that it's actually worked, so many years, that I sort of lost track of it. Okay. Good. So, that's a task that we'll work on.

And almost finally, one of the major tasks we're doing -- again, we have a lot of information that's sort of scattered. I've written a lot, our other teammates have written a lot on different aspects, but they're all over the place. And although we anticipate we're going to keep on working on this SEC issue until it's finally resolved, which who knows when that's going to be, at some point we -- we should write what we're calling a supplemental review report so that the Board, the work group in particular, NIOSH, and the -- and also the claimants can take a look and see what the progress is. So, it's a supplemental review report. And we're gonna -- we're going to, you know, put all that we have together in some coherent fashion, reach some conclusions, make some suggestions on where further work can go, and distribute it.

I would like to get that out, you know, as soon as we can, but recognizing it's a very -- it's a large undertaking because we have several contributors, several different areas of concern, and we want to put together a nice, cohesive report. And, you know, just like any report that anybody puts out on this project, us and NIOSH, ask them to go and turn in a review

and revision, and then finally send it through the production and clearance steps before it's, ultimately, sent out. So, all that takes a while.

Our goal is to have it out sometime spring of 2025. We'll -- we'll -- we haven't started this report yet. We're just thinking about it now. So, once we start talking about it and consulting with the working group, we'll have a better date, you know, a firmer date for when it could be produced. But I think it's a valuable thing. Otherwise, we have lots of information, but the -- but nobody else does, so we'll -- we should put it out. It also gives NIOSH an opportunity to read it and respond to it, so we get a better picture of what's going on.

Finally, this is not a -- a -- an area that we're working on. But I just wanted to make sort of a statement here. There's a goal of what we're doing now. We're trying to keep sight of the goal. And the goal, at least as I see it, is to determine if there is adequate information and approved methodologies to perform the required dose reconstructions with sufficient accuracy to inform the SEC-00256 decision. So, that's a little bit boilerplate, but it's true. That's the -- that's the ultimate goal. The goal is not -- and not in bold here -- to produce the complete encyclopedia of Pinellas operations and activities.

Many of the material encountered is interesting and definitely contributes to a fuller picture of the Pinellas Plant and what was going on there, but it may not be directly relevant to that goal. So, that's it. You know, anybody have any questions or comments at this time?

MR. BARTON: Just to add on to what Steve just said, and that was very thorough. Thank you, Steve. The largest effort really is going through

all this material and sort of characterizing it, cataloging it, and picking out what's really of interest to the EEOICPA program. So, you know, we really just have -- and we are cataloging it and -- and part of the goal is to actually let the petitioners and claimants know that we're taking all these submittals seriously, again, characterizing them and then, basically, distill it down into something that can be digested and not simply, as Steve said, an encyclopedia. So, while we don't have the draft in progress, I think all of the research is nearing its end. So, I agree with Steve. I think the spring next year is definitely on the table.

DR. OSTROW: Thanks, Bob.

CHAIR ANDERSON: Thanks, Steve. Yeah, --

MEMBER CLAWSON: Well, (indiscernible) --

CHAIR ANDERSON: Brad, go ahead.

MEMBER CLAWSON: Thanks Steve and Bob. I appreciate you updating us on this. I think one of the biggest things and kind of what interested me too is to see all the different contracts that were actually going through Pinellas. That was interesting to me and to see all the interaction between all the other different sites. So, we just want to make sure that we cover this good, that we -- we address the issues where we can. I appreciate the update on that Steve and Bob. And with that we'll -- we'll probably be setting up a work group before then and kind of to go over a little bit of this. I'll get with other work group members and SC&A and see where we're at on there. And we'll probably set up another one and go from there, go over some of this. So, I appreciate it. Thank you.

CHAIR ANDERSON: Okay. (Indiscernible) --

MEMBER CLAWSON: So, Henry, since --

CHAIR ANDERSON: -- (indiscernible) --

MEMBER CLAWSON: -- since --

CHAIR ANDERSON: Go ahead.

MEMBER CLAWSON: Since we're doing other updates, should I go through some of my other sites?

CHAIR ANDERSON: Yeah, I would say at least one more.

MEMBER CLAWSON: Well, I've got at least one more. So, one -- one of them that I've got is Hanford. As you guys heard earlier today, there's been an issue with data capture. I've been working with Chuck on that. They've given me an update. I do want to be a part of those data captures when they do come up, but we're proceeding on with that with Hanford and this is for the coexposure model. And I'll keep you appraised of that.

But one of the work groups that I'm on, which is the dose reconstruction group, I -- I do have a question. And we don't have a chair, and I understand that now, but I thought we were supposed to be submitting a letter to the secretary. And I know that it's been a few years since we have done that, and I'm wondering if we shouldn't be able to work on that and get that submitted. I think it's almost been two or three years since we have submitted one.

So, Henry, that's a -- that's kind of up to you and Rashaun and SC&A. What -- what is our feelings on this? I would kind of like to get this letter put out before we lose Grady and Tim and so forth like that, because they have been -- some of them have been in -- have helped get us to where we are at now. I think that we're sitting quite well. So, I just want to throw

that out and see what people's feelings are on that.

CHAIR ANDERSON: Paul, I see your picture. Go ahead.

MEMBER ZIEMER: Well, Brad, I concur with that. We -- we have an obligation in our, basically, what you would call our constitution, if I can use those words for it, of the -- of the Board. Our responsibility is to periodically advise the secretary on the quality and scientific viability -- I forget the exact words that are used -- of the program.

This is aside from all -- you know, we -- we end up mostly doing recommendations on SECs to the secretary, but we're required, I think, by the law to periodically report to the secretary on the status of the program in terms of the -- I believe, it's the scientific quality, and there are some other words in there that are used. And -- and Brad, you're right, we haven't done that for a few years. We could look back and I think probably find previous report of this type to use as a template as to the kinds of things that need to be reported.

MEMBER CLAWSON: Yeah. I think it's in our bylaws to be able to do this, Paul. I just -- it's something that I've been looking at, and I've reached out and asked this question of other people. I know that SC&A said that they'd help if I need to be able to put one together. So, I would just throw that out to -- especially all the Board Members and Henry and Rashaun, if we should not be working on that because --

MEMBER BEACH: I think --

MEMBER CLAWSON: Go ahead.

MEMBER BEACH: Brad, I think Rose can probably answer a lot of those questions, since I know she's instrumental in putting those together

for that subcommittee. Are you the chair of that subcommittee, or has that been announced?

MEMBER ZIEMER: I don't believe it's the responsibility of that subcommittee. I believe, it's the responsibility of the full Board and probably Henry, me, Paul, and you to -- to start the process. I'm not sure.

CHAIR ANDERSON: Well, I --

MEMBER CLAWSON: Usual -- usually, it was Dave that --

MEMBER BEACH: Yeah, yeah.

MEMBER CLAWSON: -- Dave did the last couple. And it was over the -- because he was over the --

MEMBER BEACH: Yeah.

MS. ADAMS: Josie, --

MEMBER CLAWSON: -- work group. The thing about this is, and I agree with you 100 percent Paul, is that this is where -- this is -- all of the work that we do together, this is all coming together, and this is a -- this is a progress report to the secretary to help us understand and go forth with that. This letter will be put together, but it is the whole Board that is -- that is going to review it and say okay, yea or nay or if there's a dangling participle or something --

MEMBER ZIEMER: Oh, you're catching on now, Brad.

MEMBER BEACH: Yeah.

MEMBER ZIEMER: Actually, you're right. It does deal with the quality of the dose reconstructions as well. And probably that subcommittee is the proper place to initiate it.

CHAIR ANDERSON: I think Dave did it before, and I think we have

his -- Rashaun, I can look at my records. I'm sure we have a copy of what he wrote the last time, and we can kind of use that as a template. The question is --

MEMBER ZIEMER: Well, we could --

MS. ADAMS: Henry, could I --

CHAIR ANDERSON: Go ahead.

MS. ADAMS: -- this is Nancy Adams. I just did a quick review of the files that I've got, and I think the last one was December of 2020. And I can get --

MS. GOGLIOTTI: I thought it was 2019.

MS. ADAMS: No, there was one --

CHAIR ANDERSON: (Indiscernible) --

MEMBER CLAWSON: -- you guys see the issue.

CHAIR ANDERSON: Why don't you get it out, and we can circulate it. And I would say let's have the committee first look at that and -- because we have a couple of new members that are on that committee. So, I would say let's circulate it and think about how you want to do it. Shortly we're going to begin the one-on-ones again. And I'm going through to get the three members who are now full members again to be part of those groups and do -- help with the review. So we'll be getting that next 30 group together, and I would say I would think -- well, we need to talk about that.

We may want to think in terms of there's going to be a change in the secretary, so I'm not sure we want to do a report to the old secretary and then have that lost in the -- in the transition. I think we want to, you know, kind of pound our drum and show our success to the new administration.

There may -- may be some concern in that, but I think I would kind of target for early next year to get this ready to go out to the new secretary.

MEMBER ZIEMER: Well, it certainly wouldn't be done in time for the current secretary anyways.

CHAIR ANDERSON: Oh, no.

MEMBER CLAWSON: Right. I just -- it's something that came up that I've been looking at that -- I went -- I talked to Dave about this a little bit before it -- and it just wasn't the right time for it. I just wanted to get this on our radar and be able to work for it. I would say that to talk with Rose on this, because she's got all of the data that we would need her and Kathy to be able to put that together to be able to help us. I think that we can use the last letter as a template, but all the information is going to be -- Rose and Kathy would be able to help us put that together and go from there. But I didn't -- I didn't want us to lose sight of this.

CHAIR ANDERSON: Yeah, and --

MS. GOGLIOTTI: If it would be helpful, I could go through the previous letter and update all of the statistics that were in that letter, and then we can go from there if we want new statistics or to change anything.

MEMBER CLAWSON: I'd like to see the new statistics that -- that -- since the nineteen or the -- the last time that we've given this. I'd like to see the statistics -- the new statistics so we --

MEMBER BEACH: Does --

MEMBER CLAWSON: -- have a better understanding.

MEMBER BEACH: Does that need to be a tasking? Rose has volunteered to do it. Does that need to be --

MS. GOGLIOTTI: I think it --

MEMBER BEACH: -- formalized?

MS. GOGLIOTTI: -- would probably need to be an official tasking.

CHAIR ANDERSON: Yeah.

MEMBER CLAWSON: So, -- so, Henry, I -- you can task -- I think part of the problem with the tasking is, yeah, I'm a work group member of the dose reconstruction, but I'm not the chair and it usually came from the chair. So, I would like to throw out that we task SC&A to be able to update the letter and be working on that for us, if that's okay, Henry.

CHAIR ANDERSON: Yeah. That's a --

MEMBER CLAWSON: (Indiscernible)?

CHAIR ANDERSON: Yeah.

MEMBER BEACH: So, that's been tasked, I hear?

CHAIR ANDERSON: Okay, Rashaun?

DR. ROBERTS: Yes, that -- that's --

MEMBER BEACH: Okay.

CHAIR ANDERSON: So, we can move forward on that. And we'll be moving forward on the next set of reviews, Rose, we'll get that up to speed pretty quickly. There were a couple of conflicts that I assigned that I have to redo, so -- and put in the new -- newer members that are going to be more active as well. And I think we were looking at some of the other -- you may know -- remember some of the committees. What we did is just put me in as an interim chair, and we're now going to go to getting people to be -- contact them to see who's going to take over the chair. We want to spread that around and get some leadership roles for some of the reinstated

members as well. So, I will --

MEMBER BEACH: I -- I have a question on that, Henry. I was looking through -- I was looking through the subcommittees and work groups, and we still have a lot of the old members who are no longer on the Board in positions of different work groups and subcommittees. Is it the Board's responsibility to update that or does NIOSH?

CHAIR ANDERSON: No, we do that.

MEMBER BEACH: Okay. So, that, I need --

CHAIR ANDERSON: Rashaun and I will do that. And part of it, we -- we didn't want to try to put people into some of the positions that then might have to ask some of the existing people to become acting --

MEMBER BEACH: Right. And I'm wondering --

CHAIR ANDERSON: -- and then -- then we want to put in a new -- not a new person, but divvy it up a little bit better than we have now for the committee so that --

MEMBER BEACH: Well, I'm wondering --

CHAIR ANDERSON: -- everyone has a chairmanship. And that's the --

MEMBER BEACH: I'm wondering -- I'm wondering, Andy, if you shouldn't retire the ones that aren't active --

(Whereupon, Member Clawson has a conversation off the record while the meeting continues.)

MEMBER BEACH: -- so that it's a more current counting of what people are doing, and then -- Wanda Munn's (ph) on some still, Poston, I think I saw Bill. Anyway...

CHAIR ANDERSON: Well, we did send around in April the current as of

April, so I don't think -- I don't see them on there. You may have an old one.

MEMBER BEACH: It's on the website, NIOSH's website.

CHAIR ANDERSON: Well, that --

MEMBER BEACH: Oh, so the --

CHAIR ANDERSON: -- didn't get changed on the website.

MEMBER BEACH: Okay. Yeah. That's where I was looking.

CHAIR ANDERSON: Yeah, yeah.

MEMBER BEACH: Makes sense.

CHAIR ANDERSON: But we still have -- I mean, Dave, I think, was the last person to resign and he was still on there. So, that's where we shuffled it around a bit as well.

MEMBER BEACH: Right.

CHAIR ANDERSON: And then Roessler was still listed in May as well. So, we're -- we're -- we're on top of it, but we haven't shared.

MEMBER BEACH: Right. Okay. Understand.

CHAIR ANDERSON: But we have talked to some of you about taking some action, but I don't want to talk about it right now yet.

MEMBER BEACH: Gotcha. Understand. You just don't want to be chair of everything, I take it?

CHAIR ANDERSON: Right. Right.

So, any --

MEMBER BEACH: (Indiscernible.)

CHAIR ANDERSON: Any other updates?

MEMBER CLAWSON: No, I'm pretty good. I'm pretty good on that.

We're still sitting kind of the same on ANL East. There hasn't been that much progress there. I did receive a letter from Dr. Hughes on that. We're still working forward. Other than that, I'm -- I'm done with my work group updates and stirring the pot a little bit there. So, thank you.

CHAIR ANDERSON: Okay. Other committees? I don't think we've had another that have met since we met last, so I think we've got it covered.

Josie, I don't know if you have any others.

MEMBER BEACH: Well, I had LANL. We were --

CHAIR ANDERSON: Go ahead.

MEMBER BEACH: -- are attempting to schedule LANL, but we were asked to postpone until we have new members in place.

CHAIR ANDERSON: Yes.

MEMBER BEACH: So, that's all I have there. We're ready.

CHAIR ANDERSON: We've put all -- all meetings on hold.

MEMBER BEACH: Yep.

CHAIR ANDERSON: That was kind of what we were told to do.

MEMBER BEACH: Yep. Understand.

CHAIR ANDERSON: We know we got a lot of complaints, but it's coming from the top, and not me the top or Rashaun the top.

So, let's go on --

MEMBER BEACH: Right.

CHAIR ANDERSON: -- Rashaun, do you want to talk about the upcoming meetings? We have February 12th is a teleconference.

DR. ROBERTS: Yes. Actually, my apologies to everybody, but the

February 12th teleconference that we previously scheduled, I'm going to need to ask be changed. There's something that came up where -- that's a conflict, and I have to, you know, be in attendance of this different thing. So, I'm wondering if we could schedule -- reschedule for either the week before or the week after. So, if people have their calendars, --

MEMBER BEACH: I'm going to vote for the week after, if -- if that's a possibility.

DR. ROBERTS: Okay. Does anyone have any objections to that?

CHAIR ANDERSON: (Indiscernible) --

MEMBER BEACH: That'd be the 19th.

DR. ROBERTS: Yeah, that would be the week of the 17th.

(Whereupon, multiple Members speak simultaneously.)

DR. ROBERTS: I'm sorry?

MEMBER MARTINEZ: Oh, I was just saying I'm pulling up my calendar now. It'll take me a second to pull it up.

DR. ROBERTS: Okay.

MEMBER CLAWSON: The week 17th, I'm -- I'm gone most of that week.

CHAIR ANDERSON: How about Wednesday, the 19th?

MEMBER LOCKEY: I'm sorry, what month again?

DR. ROBERTS: This would be --

CHAIR ANDERSON: February.

DR. ROBERTS: -- February 2025.

MEMBER CLAWSON: I'm gone to the 21st.

MEMBER LOCKEY: I'm -- what, the 19th?

CHAIR ANDERSON: No, if --

MEMBER CLAWSON: I'm gone.

MEMBER BEACH: Well, we can go the week before. I just may have a kid on my lap, so -- because my husband's got jury duty that week, but that's okay. The 5th?

DR. ROBERTS: We could do the 5th, the 6th.

MEMBER LOCKEY: That's of February, correct?

DR. ROBERTS: Of February 2025.

MEMBER POMPA: The 5th -- this is Pompa. The 5th is good with me.

DR. ROBERTS: Okay.

MEMBER CLAWSON: The 5th is good with me.

MEMBER MARTINEZ: The 5th is good with me, but I'll have to step away to teach. I teach from 10:00 to 11:15, I think, on Monday, Wednesdays in the spring.

MEMBER BEACH: What if we move to the 6th?

MEMBER LOCKEY: I'm gone the --

MEMBER MARTINEZ: I have --

MEMBER LOCKEY: -- the 6th. I'm not available the 6th and 7th.

MEMBER FRANK: Yeah, I've got a problem that whole week as well.

MEMBER CLAWSON: Oh, shit, we're trying to figure out a date. Let me mute.

MEMBER BEACH: Yeah.

DR. ROBERTS: Okay. So, that week doesn't sound good, the 5th. It sounds like a lot of people are not really available. Let's see, we could try the week of the 24th.

MEMBER LOCKEY: That's good for me.

MEMBER ZIEMER: Good for me.

DR. ROBERTS: Okay. Wednesday or Thursday?

MEMBER FRANK: Thursday would be good.

CHAIR ANDERSON: Thursday, --

MEMBER CLAWSON: What date's that?

DR. ROBERTS: This is --

CHAIR ANDERSON: 27th.

DR. ROBERTS: -- February 27th, and it would be at 11:00 a.m. And again, these calls don't go more than an hour typically, because it's just an administrative meeting.

MEMBER LOCKEY: Right. That's fine with Jim Lockey.

DR. ROBERTS: Okay.

(Whereupon, multiple Members speak simultaneously.)

MEMBER MARTINEZ: -- 27th should be fine with Nicole.

CHAIR ANDERSON: -- four days that week is a meeting I'm at for National Biomonitoring Network, but for an hour I could probably call in.

DR. ROBERTS: Okay. All right.

MEMBER FRANK: What about -- what about Monday, the 24th? No, no, I can't do that I just realized.

MEMBER LOCKEY: No, that's not a good day.

MEMBER FRANK: That's fine.

DR. ROBERTS: Okay. Tuesday --

MEMBER FRANK: Yeah.

DR. ROBERTS: -- what about Tuesday, the 25th?

CHAIR ANDERSON: Tuesday, the 25th is a -- would be my travel day, so that's fine. We do it in the morning, I should be okay.

DR. ROBERTS: Okay. It would be 11:00 a.m. Eastern. Is that good for everybody?

MEMBER BEACH: Yes.

MEMBER ZIEMER: Yes.

MEMBER MARTINEZ: Yes.

MEMBER POMPA: That's fine --

MEMBER VALERIO: Yes.

MEMBER CLAWSON: Yes.

DR. ROBERTS: Okay. And thank you so much for understanding that.

Okay. So, then we've got --

CHAIR ANDERSON: The 25th.

DR. ROBERTS: -- yes, the 25th at 11:00 am Eastern for the teleconference. Okay. In terms of other dates, I think, you know, everything else seems okay. I do want to talk a little bit about the April face-to-face meeting.

(Whereupon, a Member has a conversation off the record while the meeting continues.)

DR. ROBERTS: If folks can, mute. I'm hearing a little bit of interference.

MEMBER LOCKEY: What's the dates again, in April, again? What was that?

DR. ROBERTS: This would be April 23rd and April 24th. And so, I think what we're hoping for is to be able to have that meeting face-to-face.

And barring any more unusual circumstances, we should be able to make that. We do need to identify a location for that face-to-face meeting, so I just want to ask your input on -- on what locations you think we should consider and then zero in on one.

MEMBER LOCKEY: Hey, Brad, yeah, I was thinking the same thing. There's always Pinellas, working on that, but that was also the last place that we -- we actually went, but that'll almost be two years. I'm open to Pinellas.

MEMBER LOCKEY: How about Savannah River?

MEMBER CLAWSON: Well, we've got to make sure when the Masters is because the last time we tried to schedule a hotel during the Masters tournament, so that didn't work too good. I'm up for either of those sites would be good. We're working on both of those sites, so.

DR. ROBERTS: I know in the past, Livermore was considered. Is -- is that something people want to think about, or is Pinellas or is SRS, Savannah River Site, the two that people want to consider?

MEMBER LOCKEY: I like those two sites because they're very active and ongoing, and that's why I think they're good.

DR. ROBERTS: Okay. Any other thoughts?

DR. ROBERTS: Okay. And I know that Dr. DeGarmo, in the past, has invited the Board back to Pinellas. So, you know, of --

(Whereupon, a Member has a conversation off the record while the meeting continues.)

DR. ROBERTS: -- the two sites is there a preference?

MEMBER CLAWSON: Well, I -- I'd -- I'd shoot for Pinellas because we

are actively shooting out after that. I'm --

CHAIR ANDERSON: Are we gonna -- are they gonna have the SC&A review done before then that we can handle it?

MEMBER CLAWSON: I hate to put words in Bob's mouth, but we can always shoot for that.

CHAIR ANDERSON: Yeah. Well, that --

MR. CALHOUN: We'd --

CHAIR ANDERSON: -- would be something for more discussion there, so but in any case --

MEMBER CLAWSON: I've talked to --

CHAIR ANDERSON: -- we can still go --

MEMBER CLAWSON: Right. If we were to be doing April for Pinellas, I would like to try to go down there a couple of days early and actually see if we could do some worker interviews, but that's -- you know, that comes into a lot of different stuff going in there. If we decide to go with Pinellas, I'll address that from there. If we go with Savannah River or Lawrence Livermore, you know, it -- it's what -- what works best for the full Board.

MR. CALHOUN: Yeah, that is --

MEMBER POMPA: Would the meeting -- would the meeting be on the 23rd and the --

(Whereupon, a Member has a conversation off the record while the meeting continues.)

MEMBER POMPA: -- 24th, or travel on the 23rd and a meeting on the 24th?

DR. ROBERTS: Well, it's hard to know what the agenda would be at

this juncture, but, typically, we reserve those for the two meeting days.

And so, --

CHAIR ANDERSON: You would travel on the 22nd.

DR. ROBERTS: Yeah, so you would travel on the 22nd.

MEMBER POMPA: Thank you.

DR. ROBERTS: Uh-huh.

MR. CALHOUN: This is Grady. I'll try this again, Typically, like you mentioned, Savannah River Site, if -- if there's a -- if you're intending to vote, you usually don't go to the site we're voting on just because it puts pressure on both sides. So, just something to think about.

CHAIR ANDERSON: I'm not sure we'll have enough together for a vote on Pinellas. I think we would have enough to be able to talk about or have presented the new information received and summarize.

MEMBER ZIEMER: I think Grady was talking about Savannah River. We probably don't want to go there because --

CHAIR ANDERSON: Right. Yeah.

MEMBER ZIEMER: -- (indiscernible).

MR. CALHOUN: Yeah, that's correct, Paul.

CHAIR ANDERSON: Yeah. Okay. So, if we plan to do Pinellas, that would make sense.

DR. ROBERTS: Okay. So, would -- so, is anyone opposed to Pinellas, or are there other insights or input people want to have? Okay.

MEMBER FRANK: What's the -- what's the airport? If we do go to Pinellas, what would be the airport to get there? Tampa.

UNIDENTIFIED SPEAKER: Tampa.

MEMBER CLAWSON: Probably Tampa.

DR. ROBERTS: Yeah.

MEMBER FRANK: Thank you.

MS. ADAMS: Clearwater.

DR. ROBERTS: Okay. So, are we deciding on Pinellas then?

CHAIR ANDERSON: Yes.

MEMBER CLAWSON: Sounds good to me.

DR. ROBERTS: Okay. Great. So, we will put that down. In terms of additional dates that we need to schedule, and I just want to be mindful that we, you know, need to cut this at 5:00, but I know that we had discussed trying not to schedule a final meeting in December to travel -- because travel can be difficult, I guess, during that time is what people were raising. So, I do want to go ahead and schedule our last teleconference for 2025, and then come up with a tentative date for the last, what I assume will be, a face-to-face meeting.

So, if we do, you know, try to push up the time line a little, I would think that we need to have the teleconference in September versus October, and then the meeting, we could schedule for November. But, you know, what are people's thoughts about sort of --

MEMBER BEACH: Seems like --

MEMBER POMPA: November --

DR. ROBERTS: -- pushing up --

MEMBER BEACH: -- November --

DR. ROBERTS: -- the time?

MEMBER BEACH: -- would be just as complicated as December, but, I

guess, it depends on when in November it is.

DR. ROBERTS: Right. And really when in December. I mean, is early -- this time we're doing an early December, you know. So, how did this work? So, we could we keep October and just do early December.

MEMBER BEACH: That's fine with --

MEMBER CLAWSON: I don't -- I don't think early December would be bad. It's when we were trying to do it for the 20th and 19th of December. If it was earlier, I don't think it'd be such a problem.

DR. ROBERTS: Okay. Okay. Very well, then. Then let's try to find a meeting in -- date in October, and that, again, is just the teleconference. So, about an hour-long meeting is typically the case for those. How would, let's say, the week of October 5th be -- or the 6th, which is the Monday? So, we could do the 8th, Wednesday, or the 9th, Thursday.

CHAIR ANDERSON: Either of those are good for me.

MEMBER FRANK: Either -- either works --

MEMBER MARTINEZ: Wednesday would be better for me in the fall.

DR. ROBERTS: I'm sorry?

MEMBER MARTINEZ: Wednesday will be better for me in the fall because I'll be teaching Tuesday, Thursdays in the fall. So, Wednesday would be better.

DR. ROBERTS: Okay. Does anyone have any objections to Wednesday, October 8th, at 11 a.m. Eastern?

MEMBER FRANK: No.

MEMBER BEACH: No.

DR. ROBERTS: Okay. Great. Okay. So, then let's move on to -- to

December. And then we'll --

MEMBER FRANK: How about the 3rd -- the 3rd --

DR. ROBERTS: -- early December --

MEMBER FRANK: -- and the 4th?

DR. ROBERTS: -- December --

MEMBER FRANK: Travel on the 2nd after --

DR. ROBERTS: -- 3rd and the 4th?

MEMBER BEACH: We usually don't --

DR. ROBERTS: Does anyone have any issue with December 3rd?

MEMBER MARTINEZ: I won't be able to travel in person those days because that's probably the last week of classes, but if we did it the next week, I'm going to look up -- I'll look up the final exam schedule and see what it is.

MEMBER LOCKEY: Rashaun, Jim Lockey. The first week in December in Ohio, that's deer hunting season, and we have a -- a tree farm here. I have to be here during that week because of all kinds of people. You know, there's a trespassing issue I run across when that happens here in Ohio.

DR. ROBERTS: Okay. How about --

MEMBER LOCKEY: (Indiscernible) --

DR. ROBERTS: -- moving it to the second week --

MEMBER LOCKEY: -- is fine. The second week is good.

DR. ROBERTS: Okay. So, how about the 10th and 11th?

MEMBER LOCKEY: That's good.

MEMBER FRANK: I can -- I can come virtually, but I can't travel the 10th or 11th.

MEMBER BEACH: What about later in the week?

CHAIR ANDERSON: That leaves the 12th.

DR. ROBERTS: Yeah, that would fall --

MEMBER FRANK: But I could do the --

DR. ROBERTS: -- on a Friday.

MEMBER FRANK: I could do -- I could -- yeah.

DR. ROBERTS: Okay.

CHAIR ANDERSON: This is -- this is a call?

MEMBER FRANK: No, this is a meeting.

MEMBER CLAWSON: This is in person.

DR. ROBERTS: Yeah. This would be in person. So, does anyone else -- would anyone else have an issue with coming face-to-face if we did the 10th and 11th?

CHAIR ANDERSON: The 10th is --

MEMBER BEACH: I don't have a problem with that.

CHAIR ANDERSON: The 10th --

MEMBER LOCKEY: (Indiscernible) --

CHAIR ANDERSON: -- is bad for me.

MEMBER LOCKEY: What's bad for you, Andy?

CHAIR ANDERSON: The 10th.

MEMBER LOCKEY: How about the 11th and the 12th?

DR. ROBERTS: Yeah, it's just that it's --

CHAIR ANDERSON: I have a problem on the 10th. That's the problem.

DR. ROBERTS: Yeah. Okay. Well, we have a minute left, so why

don't we just circle back to this conversation and finish the Board work session after the public comment period? It sounds like it's going to take a minute to -- to try to figure this out.

CHAIR ANDERSON: You want to go ahead and open it up for...?

DR. ROBERTS: Well, it's not -- we're right at 4:59.

CHAIR ANDERSON: Yeah.

PUBLIC COMMENT

DR. ROBERTS: But, yeah. Okay. So now, I have 5:00 p.m. Eastern.

Andy, if you want to open it up. We did have a request from Dr. DeGarmo to make a public comment and possibly Mike Elliott.

CHAIR ANDERSON: Okay. Let's open it up. Dr. DeGarmo, I see you're still here. You want to...?

DR. DEGARMO: I'm here. Do you want me to start? Can you hear me?

CHAIR ANDERSON: Go ahead and start.

DR. DEGARMO: Okay. One of the greatest privileges in my research career was being granted permission to conduct research in the hallowed halls of the University of Chicago's office of the vice president of special projects. In this very special place, this unending archive, one can discover not only the documents from the earliest days of the Manhattan Project, but documents detailing the years of notable events that followed.

These materials are preserved alongside the research documents and personal thoughts of the fathers of the atomic bomb. In one of the file folders I looked at, a yellowed file folder because of its age, I pulled a note

from [Identifying information redacted] collection and, of course, a man of great brilliance and insight. And in this note it appeared to contain what -- one of his regrets of his work on the first atomic sustained reaction and the Trinity bomb and all the other work he did in the area. And I'd like to quote, if I might: Providing context to numbers used in analyses is crucial because it helps interested parties better understand the significance and implications of the data. Context helps to interpret the numbers making the information more meaningful and actionable. Without context, numbers can be misinterpreted leading to potential misunderstandings and misinformed decisions. Part of (audio interruption) context can only be achieved through honest discussion with the workers, those responsible for procuring the materials, the research and development of technology and testing.

I'm sorry, to keep belaboring the point, but I feel as if you are ignoring this piece of advice from one of your atomic forefathers, because I feel as if you continue to ignore the context upon which you are proposing that you have the information necessary to conduct dose reconstructions regardless of having no bioassays in terms of the plutonium.

I will ignore my second comment given that you have decided to finally come to Pinellas, and I can't say enough that I appreciate that, and I will be sure to pass this information along from the meeting today to the claimants and to the petitioners. And I would like to offer instead any way that I can facilitate your meeting in a way that you think is appropriate for me as the authorized petition representative. Please feel free to ask.

I'd also like to say I'm really glad you're moving along so quickly with the review of the submittals I have made. Just so you're prepared, I will be

providing you with what I consider to be more significant or relevant plutonium information. I have received in several addition -- additional data dumps from claimant occupational histories, Department of Energy, CDC, Sandia, SRS, and Los Alamos.

Happy holidays to you all as I send you this new data. And to Mr. Calhoun and Dr. Taulbee, I congratulate you on your upcoming retirements, and I wish you both the best in the years to come. Thank you.

CHAIR ANDERSON: Thank you very much.

Do we have another one -- person who wants to speak?

MS. CARROLL: I would like to. Stephanie Carroll.

CHAIR ANDERSON: Okay. Go ahead, Stephanie.

MS. CARROLL: Thank you. Thank you for allowing me to present this --

CHAIR ANDERSON: Could you just identify yourself and --

MS. CARROLL: Yeah. My name is Stephanie Carroll. I'm an authorized representative under the EEOICPA. I helped with the Rocky Flats special exposure cohort, and I often do hearings for claimants related to the Administrative Procedures Act and the agencies not following the clear language of the Act, and that's what I'd like to present today --

CHAIR ANDERSON: Thank you.

MS. CARROLL: -- and the issues with decisions not being in accordance with the law.

CHAIR ANDERSON: Go ahead.

MS. CARROLL: Thank you. There has not been a satisfactory explanation for the often years-long delay in the evaluation of petitions for

special exposure cohorts. The Act is clear and unambiguous in providing guidance to the agencies in establishing a special exposure cohort. When an agency fails to consider the guidance of the Act and regulations, the courts have found this to be arbitrary and capricious, an abuse of discretion and authority, and in violation of the Administrative Procedures Act. The APA is 5 U.S.C. 551 through 559.

Under 42 U.S.C. 7384d of the Act, purpose of the program -- the purpose of the compensation program is to provide for timely, uniform, and adequate compensation of covered employees and where applicable survivors of such employees suffering from illnesses incurred by such employees in the performance of duty for the Department of Energy and certain of its contractors and subcontractors. From the executive order 13179 -- this order sets out agency responsibilities to accomplish these goals. Building on the administration's articulated principles and the framework set forth in the Energy Employees Occupational Illness Compensation Program Act of 2000. The Departments of Labor, Health and Human Services, and Energy shall be responsible for developing and implementing actions under the Act to compensate these workers -- to compensate these workers and their families in a manner that is compassionate, fair, and timely. Other federal agencies, as appropriate, shall assist in this effort.

Spending years in the evaluation of petitions against the clear language of the Act -- is against the clear language of the Act. This is supportive of disproportionate sanctions against workers with cancers that do not qualify for the SEC. Indefinite delays by NIOSH to evaluate petitions

is not in accordance with the law. The Act is clear and unambiguous in addressing deadlines. The Act 42 U.S.C. 7384 and 7385 and the executive order 13179 require timely and compassionate adjudication and evaluation of these petitions.

Under 42 U.S.C. 7384q(c), deadlines for designation of additional members to a special exposure cohort -- under deadlines -- not later than 180 days after the date on which the president receives a petition for designation as members of the special exposure cohort, the director of NIOSH shall submit to the Advisory Board on Radiation and Worker Health a recommendation on that petition including all supporting documentation. So, all the supporting documentation on that evaluation must be provided to the Board within 180 days. The implementing regulations support a timely evaluation of these -- of these petitions.

42 U.S.C. 8313 -- the NIOSH report under paragraph d of this section, which is referring to the evaluation report, shall be completed within 180 days of the receipt of the petition by NIOSH. So, as soon as they receive that petition, they have 180 days to come back and tell us if they can reconstruct dose. The procedure for computing these -- this time period is specified in 83.5c. In addition the computing of 180 calendar days shall not include any days during which the petitioner may be revising the petition to remedy deficiencies identified by NIOSH under 83.11a or b, nor shall it include any days during which the petitioner may request a review of a proposed finding under 83.11c. So if the petitioner requests a review of that, then, of course, the time period tolls.

But then it goes on to say, or during the conduct of such a review

under 83.11d. So, the only time that NIOSH can continue to delay the final evaluation report, the evaluation report on if they can reconstruct dose, is only if the petitioner comes back and says I want a review of the proposed findings by NIOSH. Only during that review and only if it's requested by the petitioner is that review to go on and to toll that 180 days.

So, if more time is required to collect records and a timely evaluation cannot be accomplished, the regulations clearly speak to this. And here's where they speak to it: The director of OCAS may determine that records and/or information requested from the DOE, an AWE, or another source to evaluate a petition is not or will not be available in a -- on a timely basis -- that's not 12 years, that's 180 days. It's been determined 180 days is timely. So, if they cannot get those records, such a determination will be treated for the purposes of the petition evaluation as equivalent to a finding that the records and/or information requested is not available. That means reconstruction cannot be done.

If they are not available then it must be determined that a dose reconstruction cannot be done and an SEC must be recommended. The agency does have the option to reopen the petition when the documentation is received, but I am asserting that these years-long delays are not in accordance with the law. The reason for the delays is seriously flawed and not in accordance with the law, and it's also giving disproportionate sanctions to anybody who has cancer, who possibly could qualify for the SEC, and it is absolutely improper for these SEC petitions to be evaluated for years on end while nuclear workers and their families are suffering. Nuclear workers are dying.

The Act is very clear, and so is the executive order that all of this adjudication and decisions on any of these claims, including SECs needs to be done in a timely and compassionate manner. It is not compassionate -- I think anyone on the street would know this -- it is not compassionate to let somebody die of cancer thinking that their family is not going to be taken care of and then find out 10 years later, they actually qualified for the SEC. It is not compassionate to let these workers die not knowing that their families are going to be taken care of.

And you can reach me at AtomicWorkerAdvocacy@gmail.com or Stephanie@EEOICPAadvocacy.com. And I'd appreciate any questions anybody has for me, and I want to keep that on the public record, please. Thank you. I appreciate all the work that you do.

CHAIR ANDERSON: Thank you very much, Ms. Carroll.

Any other comments people want to make?

MR. FROIS (ph): Yes, yes.

CHAIR ANDERSON: Go --

MR. FROIS: This is --

CHAIR ANDERSON: -- ahead.

MR. FROIS: -- Al Frois, Sr., --

CHAIR ANDERSON: Yes.

MR. FROIS: -- -- in California.

CHAIR ANDERSON: Go ahead.

MR. FROIS: I'm the petitioner on -- I'm the petitioner on the Lawrence Livermore petition, and I filed it in 2014, and I'm waiting 10 years now to get some action. We got action quickly on the first 16 years. It was

approved in 2016 by your Board. Thank you. But in the meantime, we've had eight years of a lot of excuses and sequestration and delays for all kinds of reasons, but we're still sitting here waiting and people dying of cancer and more and more flowing in every day. And I certainly second the comments of Stephanie Carroll that were just made.

CHAIR ANDERSON: Thank you.

Other commenters?

MR. ELLIOTT: This is Mike Elliott from M and C.

CHAIR ANDERSON: Go ahead, Mike.

MR. ELLIOTT: Thank you. Thank you, everyone. I'd like to address this to -- if Grady Calhoun is still on the line, to Grady Calhoun and perhaps if there's anyone from the Department of Labor that can shed some light on this question. I read in DOL Circular 25-01 there's a letter that NIOSH has prepared to send to M and C claimants indicating that their claims have been returned to -- to the Department of Labor for evaluation under the new SEC designation. And I'm just curious if those -- I'm not a claimant, so I don't receive one of those letters. Have those letters gone out yet and when -- and more importantly, when will the Department of Labor start evaluating claims for existing claimants?

MR. CALHOUN: This is Grady, and the public comment period is usually not a time for discussion. So, we'll have to get back with you.

MR. ELLIOTT: Okay. Thank you. Should I reach out to you, Grady, directly?

MR. CALHOUN: Labor would be better, but you can go here to reach out to me, that's fine.

MR. ELLIOTT: Very well. Thanks very much, and good luck in your retirement, whenever that happens.

CHAIR ANDERSON: Anything else, Mr. Elliott?

MR. ELLIOTT: No, no. That's it.

CHAIR ANDERSON: Okay.

MR. ELLIOTT: Thank you.

CHAIR ANDERSON: Okay. Any other commenters? I don't see anybody try. If you're trying, you may be on mute.

MS. WALKER: Hello.

CHAIR ANDERSON: Yes, go ahead.

MS. WALKER: Yeah. This is Carolyn Walker from Kansas City Plant. I have a question on the SEC process. I've noticed that a lot of the conditions under the PACT Act, which I'm very glad the veterans have gotten, mirror a lot of the conditions that the workers have, but where the veterans are covered automatically and don't have to jump through all the hoops, the workers still do have to jump through all the hoops. Is there a -- is there a rationale behind that? Especially since some of the exposures were the same exposures, for example, to uranium and to other toxins.

CHAIR ANDERSON: I think we'll probably have to have someone from NIOSH or Labor get back to you about that. We can't really answer that -- that's kind of a legal question, so we'll have to have other people look at it, but we will get back to you. I don't know if -- maybe you --

(Whereupon, a Member has a conversation off the record while the meeting continues.)

CHAIR ANDERSON: -- what we can do. We've probably have -- we

probably have gotten your email address anyway, so we just need to be able to contact you again.

Rashaun?

DR. ROBERTS: Andy, it's probably best if she consult the address on the website, the OCAS email address, and submit the question through --

CHAIR ANDERSON: Okay. Thank you.

Did you hear that?

MS. WALKER: Yes. And can you spell that email address, since it -- I think it's not spelled correctly when it comes across the transcript.

CHAIR ANDERSON: Rashaun, do you have that, or Grady?

MR. CALHOUN: I'm looking.

CHAIR ANDERSON: Yeah.

MEMBER CLAWSON: It sounds like there are some -- people are talking in the background that need to mute, too.

MR. CALHOUN: On the website it says DCAS, D-C-A-S, at CDC.gov.

MS. WALKER: Thank you.

CHAIR ANDERSON: Okay. Any other commenters? If you're trying to comment, you may be muted. Give you a little bit of time to... Seeing nobody else -- we didn't have anybody else on the list, so if you want to speak, do so now. If not, I'm going to close the public session.

We have one more activity here that I'm -- Grady is still on --

DR. ROBERTS: Well, actually, --

CHAIR ANDERSON: -- the phone.

DR. ROBERTS: -- Andy, can we circle back to the Board work session?

CHAIR ANDERSON: Before we close out, read my letter?

DR. ROBERTS: Yes.

CHAIR ANDERSON: Oh, okay. Go back.

DR. ROBERTS: Okay.

CHAIR ANDERSON: Don't leave, Grady, don't leave.

BOARD WORK SESSION (RESUMING)

DR. ROBERTS: Yeah. Yeah, this should not take long, but there were a couple of things from the Board work session to -- to cover. So, we need to identify that face-to-face meeting time for December 2025, and it sounds like there's some issues with the two weeks that we've looked at. Is getting into December 15th -- the week of December 15th a possibility?

CHAIR ANDERSON: This is 2025?

DR. ROBERTS: 2025.

MEMBER MARTINEZ: This is Nicole. That works for me.

MEMBER LOCKEY: That works for Jim Lockey.

MEMBER BEACH: Works for me.

MEMBER POMPA: This is --

CHAIR ANDERSON: What were --

MEMBER POMPA: -- David Pompa, --

CHAIR ANDERSON: -- the dates again?

DR. ROBERTS: It's the week of the 15th. Travel would occur on the 16th, presumably. The meeting would be the 17th and 18th.

CHAIR ANDERSON: That's going to be --

MEMBER FRANK: That works for me, too.

DR. ROBERTS: Okay.

MEMBER FRANK: Frank.

DR. ROBERTS: Okay.

MEMBER CLAWSON: This is Brad. I'll make it work.

MEMBER ZIEMER: Okay here.

DR. ROBERTS: Okay. Great. Then we have the 17th and 18th of 2025. So, thank you all for that.

MEMBER FRANK: Any idea where that might be?

DR. ROBERTS: No. Not at this juncture.

MEMBER FRANK: Thank you.

DR. ROBERTS: Okay. I think we -- we skipped, Andy, the August public comments. I just wanted to --

CHAIR ANDERSON: Oh, yes. Okay.

DR. ROBERTS: -- talk a little briefly about --

CHAIR ANDERSON: Go ahead.

DR. ROBERTS: -- that. Really -- and these are the public comments from August the 7th and not April. I think that's a typo on the annotated agenda. But really there was only one public statement, and that was from Dr. DeGarmo in which she thanked the Board for the opportunity to allow her to present on August 8th. But there -- I do want to acknowledge that there were a few things from Dr. DeGarmo's presentation on the 8th and much of which I think has already been covered.

There was a -- you know, statement that Dr. DeGarmo's petitioners would like to see a rewrite of the Pinellas site profile and technical basis documents and also would like to see the -- the Pinellas work group conduct in-person interviews with the workers. And, I believe, that those things

were kind of covered. As Brad stated, we will be scheduling a Pinellas work group meeting so that these issues can be discussed in greater depth. But just wanted to acknowledge that those comments were made.

And Andy, that's it for me.

CHAIR ANDERSON: Okay. I'm just putting in my dates here. Okay. so, now we have a happy goodbye to Grady. Oh, you put your light on. We should have a hat for you. I was going to try to get AI to do a little something for you, but instead the Board -- we wrote a little letter here, a salute to Grady Calhoun.

The Advisory Board on Radiation and Worker Health (the "Advisory Board") extends its best wishes to Grady Calhoun upon his retirement as the director of the division of compensation analysis and support (DCAS), National Institute for Occupational Safety and Health (NIOSH). Since June of 2019, Grady Calhoun has provided leadership in administering the NIOSH portion of the Energy Employee Occupational Illness Program Act (EEOICPA) while maintaining and advancing a solid scientific and technical programmatic basis. Meeting the challenges of the COVID epidemic and the NIOSH's cybersecurity revision process, he has worked hard to administer the program as well as possible. He has shown a dedication to addressing the needs and the claimants that the program deserves.

In 1987 Grady began a health physics career after receiving his master's degree in health physics from the University of Cincinnati. He spent 10 years working for Westinghouse in Fernald before joining NIOSH in October 2001. He was one of the founding members of what was originally called the office of compensation analysis and support (OCAS), later

upgraded to a NIOSH division.

Grady has held many jobs in OCAS. Before -- before becoming the director of DCAS, he served as the technical program manager. He also served as the contracting officer's representative for the Oak Ridge affiliated University's ORAU radiation dose reconstruction contract. In all these activities, the Advisory Board observed Grady's dedication to the program, his work with members of the Board, the Board's technical contractor, and the program's claimants and representatives, and his understanding of the science and technology involved. He and his staff have been effective communicators of complex dose reconstruction concepts and issues for the program's stakeholders.

Throughout his time at NIOSH, Grady maintained the integrity of the program. As Grady retires from his years at NIOSH, the Advisory Board offers him its gratitude for all his contributions in developing and leading the efforts of DCAS. We wish him and his family the best in their future endeavors.

Thanks a lot, Grady.

Anyone else want to say a few words? Caught you all off guard.

(Whereupon, multiple Members speak simultaneously.)

MEMBER ZIEMER: Well, we'll be here a long time if we do that, but I'll --

CHAIR ANDERSON: Yeah. Go ahead.

MEMBER ZIEMER: -- start.

CHAIR ANDERSON: We'll go through a couple and -- yep. Go ahead.

MEMBER ZIEMER: Well, it's always -- it's always sad to see some of

our colleagues retire, particularly those colleagues who have been instrumental in getting the job done that we're involved in here as -- as a Board. And Grady, we are all thankful for your integrity, your input, and your professionalism in all that you've done all these years. And we wish you the best.

MEMBER LOCKEY: Hey, Grady, Jim Lockey. I hope I -- I hope I see you at the farm much more often now.

MR. CALHOUN: Well, I hope your salamanders do well for you.

MEMBER LOCKEY: Yeah, I want to start some more vernal pools, so when you get a chance.

MR. CALHOUN: I appreciate the good words, nice words from everybody. You know, I'll miss the people, but I don't think I'll miss the job so much. But so, but it's been a good ride, you know. Twenty-three years, so it's been -- it's been fun at times; not so fun other times. But --

MEMBER BEACH: Thanks --

MR. CALHOUN: -- I appreciate it.

MEMBER BEACH: Thanks, Grady, for leaving us in good hands, also with Lori.

MR. CALHOUN: Absolutely. Lori's the best, and Grant's going to do great. So, you're not going to miss a beat.

MEMBER POMPA: Grady, this is David Pompa. I wish you well, and I want to thank your staff. I've been up to Cincinnati, Ohio several times to your classes up in NIOSH, and I remember one day it was so cold, man. It was cold. But I wish you well, Grady, and I appreciate everything you do.

MR. CALHOUN: Well, thanks David I remember you picking me up

twice from the airport to come visit your site. That was -- that was nice of you.

MEMBER POMPA: All right. Thank you, sir.

MEMBER FRANK: Yeah, Grady, this is Arthur. And just -- you know, anybody who's getting ready to retire and move on, just want to wish them well for the new status in life and enjoy that more than some of the times that haven't been as much fun when you're working. So, enjoy the next set of days.

MEMBER VALERIO: Grady, this is Loretta. Thank you for all that you've done, you know, for the years that I've been on the Board. I appreciate the work with NIOSH, and I wish you well on your retirement.

Enjoy your family because that's the most important thing. And just have fun.

MR. CALHOUN: Thank you, I will. I've got six grandkids to wrangle, so that'll keep me busy.

Am I allowed to make a motion to adjourn the meeting?

CHAIR ANDERSON: Yeah, right. Okay.

MR. CALHOUN: That could be my final act.

CHAIR ANDERSON: It could be your final act, yeah.

MEMBER ZIEMER: No, no, you're already retired.

CHAIR ANDERSON: Yeah. Not yet. He hasn't gone. Not quite.

MR. CALHOUN: I still got until the end of January, so yeah.

CHAIR ANDERSON: He's probably retired for us at this point, yeah. We could draft you to come back, right? Okay. Well, if there's --

MEMBER CLAWSON: I second Grady's motion to adjourn the meeting.

CHAIR ANDERSON: Okay. If there's no other comments, it's been a busy day, and we had a good series of presentations and talks yesterday. So, everybody look forward to enjoying the last of the year. And we got a lot of new things to get going that both Rashaun and I will be working on. So, you can expect to hear from us in the not-too-distant future.

MEMBER BEACH: Sounds great.

MEMBER VALERIO: Before everyone hangs up, this is Loretta again. I want to wish everyone a safe, blessed holiday. Thank you for this year. I hope next year is better. It's good to see all your faces again. And one more time, just everyone have a safe, blessed Merry Christmas, and we'll be busy next year.

MEMBER ZIEMER: Well said, and for all of us.

MEMBER VALERIO: Take care everyone.

CHAIR ANDERSON: Bye-bye.

(Whereupon, the meeting was adjourned at 5:30 p.m. EST.)