CENTERS FOR DISEASE CONTROL AND PREVENTION

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

ADVISORY BOARD ON RADIATION AND WORKER HEALTH

MEETING #155

THURSDAY, DECEMBER 7, 2023

The meeting convened at 11:00 a.m. EST

via teleconference/videoconference,

Henry Anderson, Chair, presiding.

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Members Present:

Henry Anderson, Chair

Josie Beach, Member

Bradley Clawson, Member

Frank Arthur, Member

David Kotelchuck, Member

James Lockey, Member

Nicole Martinez, Member

David Pompa, Member

Genevieve Roessler, Member

Loretta Valerio, Member

Paul L. Ziemer, Member

Registered and/or Public Comment Participants:

Rashaun Roberts, Designated Federal Official

Nancy Adams, NIOSH contractor

Bob Barton, SC&A

Kathy Behling, SC&A

Ron Buchanan, SC&A

Grady Calhoun, DCAS

Medeline Cook, SC&A

Denise DeGarmo, Petitioner representative

Joe Fitzgerald, SC&A

Rose Gogliotti, SC&A

Members Present continued:

Greg Lewis, DOE

Amy Mangel, SC&A

Chuck Nelson, DCAS

Steve Ostrow, SC&A

Michael Rafke, HHS

LaVon Rutherford, DCAS

Tim Taulbee, DCAS

Brant Ulsh, DCAS/ORAUT

John Vance, DOL

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PROCEEDINGS

(11:00 a.m.)

WELCOME AND ROLL CALL

DR. ROBERTS: -- to officially open the meeting. So, good morning, everyone and welcome. I'm Rashaun Roberts. I'm the designated federal official for the Advisory Board on Radiation Worker Health, and I'd like to welcome you to meeting 155.

Just a few preliminaries, all of the materials for the session, the agendas, presentations, other documents, are posted on the NIOSH website for this program under the schedule of public meetings. Go to calendar for year 2023 and click on the tab for December to find them. If you're participating by phone, you can go to the website to access all of the materials, and you can follow along with the presentations from there. The materials for this meeting were provided to the Board Members and staff prior to this meeting.

As you know, the meeting is being conducted by telephone and Zoom. On the website, there's the Zoom link, which will enable you to hear and watch the presentations through Zoom. If you've 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. And usually that's the lower left-hand corner of your screen. If you've dialed in, you'll only be able to hear and to speak and to see the presentations. Actually, you won't be able to see the presentations. So, you'll just be able to hear the presentations and to speak.

So, please make sure your phone stays muted unless you need to talk. If you don't have a mute button, press star six to mute. If you need to take yourself off, press star -- star six again. Also, if you're only participating by telephone, we're unable to see your name, so please identify yourself before providing your comments or questions.

So, I think we can go ahead and move into roll call now, and I'll start with Board Members in alphabetical order. Board Members and staff, as we go through the roll call, should state any conflicts of interests you might have as you register your attendance. I will note that there are work group updates and discussions of Metals and Controls and Pinellas today. And anyone who's conflicted for either of those sites should recuse themselves for those agenda items in rejoin for the next item. And I will note that we received the resignation from the Board from Dr. Cassano, so I won't be calling her during the roll call. So, I'm starting with Anderson.

CHAIR ANDERSON: Present, no conflicts.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here, and I have a conflict Hanford.

DR. ROBERTS: Clawson?

MEMBER CLAWSON: Here. I've got a conflict at INL.

DR. ROBERTS: Okay. Frank?

MEMBER FRANK: Here and conflict at Pantex.

DR. ROBERTS: Kotelchuck?

MEMBER KOTELCHUCK: Here. Sorry.

DR. ROBERTS: Okay. Conflicts?

MEMBER KOTELCHUCK: Oh, no conflicts.

DR. ROBERTS: Okay. Lockey?

MEMBER LOCKEY: I'm here. I have conflicts at Oak Ridge, Fernald, and Portsmouth.

DR. ROBERTS: Martinez?

MEMBER MARTINEZ: I'm here. I'm conflicted at Savannah River site, at Oak Ridge, and X-10. I also wanted to make a note that I have to drop off between 12:30 and 1:45. Eastern.

DR. ROBERTS: Thank you. Pompa?

MEMBER POMPA: Yes, ma'am, I'm here, and I have a conflict at Pantex.

DR. ROBERTS: Roessler?

MEMBER ROESSLER: Here, no conflicts.

DR. ROBERTS: Valerio? Loretta, are you on? Okay. Ziemer?

MEMBER ZIEMER: Here, conflict at Oak Ridge X-10.

DR. ROBERTS: Okay. All right. Thank you. Let's go on to NIOSH, DCAS, ORAUT.

MR. CALHOUN: This is Grady Calhoun; I'm conflicted at the Fernald site.

DR. TAULBEE: This is Tim Taulbee, I'm conflicted at Mound.

MR. RUTHERFORD: This is LaVon Rutherford, I'm conflicted at Fernald.

DR. ULSH: Brant Ulsh, I'm conflicted at Fernald and Argonne.

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

MS. COOK: Madeline Cook, no conflicts.

DR. ROBERTS: Anyone else DCAS, ORAUT? Hearing -- hearing none,

let's move on to SC&A.

MR. BARTON: Bob Barton, SC&A, no conflicts.

MS. BEHLING: Kathy Behling, no conflicts.

DR. BUCHANAN: Ron Buchanan, SC&A, conflicted at Los Alamos.

MR. FITZGERALD: Joe Fitzgerald, SC&A, no conflicts.

MS. GOGLIOTTI: Rose Gogliotti, SC&A, no conflicts.

MS. MANGEL: Amy Mangel, SC&A, conflicted at Pacific Northwest National Laboratory.

DR. OSTROW: Steve Ostrow, no conflicts.

DR. ROBERTS: Anyone else with SC&A? Okay. Let -- let's move on to HHS and contractors.

MR. RAFKEY: Michael Rafkey, HHS, no conflicts.

DR. ROBERTS: Any other folks from HHS or contractors?

MS. ADAMS: Nancy Adams, NIOSH contractor.

DR. ROBERTS: Is there anyone who'd like to register attendance from the departments, DOL, DOE, other departments?

MR. VANCE: No. This is John Vance with the Department of Labor. I'll be presenting for the program today.

MR. LEWIS: And this is Greg Lewis from DOE. I'll be presenting for DOE.

DR. ROBERTS: Okay. All right. Any members of the public who would like to register attendance?

DR. DEGARMO: Denise DeGarmo, authorized petition representative SEC-00256, Pinellas Plant.

DR. ROBERTS: Thank you. Anyone else? Okay.

So, thank you, and welcome again. Let's prepare to move further into the agenda. Again, please be sure, if you're on the telephone, to check your phone and to make sure you're on mute. Hit star six to mute. If you need to take yourself off, star six again. If you're on Zoom, make sure that you have the microphone muted.

I do want to remind everyone that there is a public comment period scheduled for today. It's scheduled for 5:00 pm Eastern Standard Time. So, if there are members of the public who plan to comment, please make sure that you're present at 5:00 p.m., because the comment period will close after the final comment to the Board.

So, with that, I will go ahead and turn the agenda over to Dr. Henry Anderson, who's the Board chair for the official welcome. Andy.

CHAIR ANDERSON: I want to welcome everybody. This is our 155th meeting of this Board, so there's a lot of history since the Board began. And we're continuing to move ahead. It's been a busy couple of past months, because we've come out of the COVID issue and are now beginning to address a variety of issues.

So, I want to welcome everybody. And I'll begin with Grady presenting NIOSH's program update.

NIOSH PROGRAM UPDATE

MR. CALHOUN: Okay, thank you. I'm gonna share my screen here and then I'll ask if you see it. All right. Does everybody see that?

CHAIR ANDERSON: Yes.

MR. CALHOUN: Okay. I don't know why there's something in the

center, but we're gonna go with this. Okay. Thank you, everybody. Good to be with you. Do you see my toolbar there? Is that --

MEMBER BEACH: We -- we don't see anything in the center, at least I don't, Grady.

MR. CALHOUN: Okay, good. Thank you. All right. Okay. Let's see if we can get this to go down. All right. Page down. Okay. There we go. All right.

As far as contracting and staffing go, I'm sad to report that our deputy Dave Sundin is leaving us. It's well deserved. He's been with us for 53 years --with NIOSH. And so that's very sad. He's -- he's a great resource and a good friend throughout this time. Kim Krause, who has been our -- she manages our project plan with ORAUT, she is leaving us too. So, she's also well deserved, been here for so long. It's going to be tough without them. So, the deputy director position has been posted. We have a certification in, and we're going to start interviewing to replace the irreplaceable Dave in the coming weeks.

IT update, this is -- I hope is good news. Some of it is typical. We continue to process all cases pretty much manually. Same story; we've achieved steady state. We're getting cases done at the same rate we're getting them in, so there's no lag time.

But the good news is, is that we performed a couple tests with the site research database. And we had two options to get this thing going. And basically, what happened here is the ORAUT team did the remediation necessary to, you know, resolve any significant vulnerabilities, and it is running on, what I'll call, their side. And so, we had to figure out a way to

access it from our side. And there were two options; one was to issue everybody else -- everybody, including all you-all, a second laptop. And that was not my favorite. But the other option is to access it via, what we call, CyberArk. It's an application. Bob Barton provided me a list of all of the folks on your side that could even remotely possibly need it, and I've got our list. I forwarded that to our IT folks. The next step that we know is going to be they you have to input your user names. And I -- I'm not sure if the exact details, but ultimately, you all will be contacted to establish a password and whatnot. So, that -- that's really good news. It's exactly the same for those of you who have missed it for two-and-a-half years, except for it actually has a couple of enhancements where you can look at more things at the same time. So, anyway, hopefully that's -- that comes to you in the next -- you know, it's a holiday, so hopefully in the next month, I would hope.

The next thing on their list will be the Board review system and the SEC viewer. It's going to happen the same way. And NOCTS, sadly, will be last, but that makes sense because it's -- it's the most complicated.

Workshops, town halls, and outreach. We completed an outreach event August 16th at Fernald. It was for -- it was at the Fernald area, but it was Fernald-Mound. We completed one out in Arvada, Colorado for Rocky Flats. I'm saying tentatively scheduled here because we don't have a venue booked or anything, but we're looking at going to Tampa area in March, Kansas City in May, Chicago in July, and then out to -- out west, Navajo Nation-type places again in September.

These outreach meetings are joint between NIOSH, Department of

Labor, and Department of Energy, and they are very informative. And it seems that the claimants get -- potential claimants get a lot of information out of those.

Just some of our statistics. We started keeping these just because we wanted to make sure we were getting back on track since the pause started, and we certainly are. So, basically this just shows the age of cases that -- of the -- the cases we have in house. We want all of those indices to go down. It is as close to the bottom as you can, but they are creeping around down there. And hopefully I -- not hopefully. That's good. Where they are right now is good. We're always gonna have some cases in house that we're processing and to try to get them out the door. Our goal has always been to get them out five months after the receipt of the last piece of information that we need to do a dose reconstruction. That could be something like additional data request for -- for -- for dosimetry, medical, confirmation, things like that. And we -- we probably -- we get more than 90 percent out the door within five months. So, we've been doing that for quite some time.

Just some of our normal stats. We have 219 outstanding requests. I always say that doesn't mean they're late; it's just that we've got that many requests out to the Department of Energy as of the -- pretty much the end of last month. Ten and six -- between 10 and 61 or 10 are between 61 and 120 days old. Only one between 121 and 180 days old. And we have no requests out there over 180 days, which is great.

Overall, we've received since inception 56,983 individual cases to NIOSH from DOL. This is individual cases. This does not include reworks. We've probably done 25 percent or more of those twice or three times or

four times. We've returned 49,299 to DOL with dose reconstruction, 952 of those have been administratively closed, 3657 have been pulled by DOL for special exposure cohort, 1881 had been pulled from dose reconstruction for a variety of potential reasons by Department of Labor. And right now, or at least as of November 24th, there was 1194 cases for dose reconstruction.

In case John's listening out there, just -- our numbers never agree, John, exactly. So, don't -- don't sweat that. That's just --

DR. CARDARELLI: I -- I -- Grady, I -- I was seeing that and chuckling, and I was gonna say something politically correct (indiscernible).

MR. CALHOUN: All right. Probability of causation summary. Of the forty -- 49,299 DRs sent for final adjudication, 36,257 are less than 50 percent, 13,042 are greater than 50 percent. These percentages have remained relatively consistent over time. However, in the last few years, the compensation percentage is going down a little bit, and that's just because of all the SEC's that have been issued. So, those cases are paid automatically, and you're left with just doing those reconstructions for prostate cancer and skin cancer, which in many cases are hard to compensate.

1,194 cases are active at NIOSH for dose reconstruction. 418 of those are actually in the DR -- dose reconstruction process. 212 of those are in the hands of claimants that are reviewing those and will be pending their -- their closeout interviews, and 564 are in the preparation phase where we're gathering information and getting ready to do those.

And that is all I've got right now, so I'm glad to take any questions before I switch to Mr. Vance's slides.

MEMBER BEACH: Grady, I'll start. Thank you for that update. The IT slide number three, good work, and thank you for not choosing the option of us having two laptops. That's a relief.

MR. CALHOUN: Well, I always say never say never until it's done, because it's not done. You don't have it your hand working yet, but that's -- that's what we think is going to happen.

MEMBER BEACH: Okay. Well, hopefully that's what happens. So, the SR --or the BRS system -- and I know this is a million-dollar question -- any ideas of how soon we might see that behind the SRDB?

MR. CALHOUN: No. But I don't -- you know, I'm guessing. This isn't -- this isn't ORAUT talking. This is just Grady talking. And I think it -- I think it'll probably be within the next six months.

MEMBER BEACH: Yeah. And I'm assuming working out the bugs with SRDB might help advance the other one. So, yeah, thanks for that bit of good news.

MR. CALHOUN: And the reason we're picking up his three is there a little bit -- they're not nearly as complicated as NOCTS and -- and honestly, I thought that I might get a little bit more goodwill from you guys if I got the SRDB and board review system and SEC viewer up, because I think you all use that more than -- than you do -- you use NOCTS. And so, you know, NOCTS is something we use more, but anyway, so that's --

MEMBER BEACH: Yeah, yeah.

MR. CALHOUN: -- that's the plan.

MEMBER BEACH: All right, thank you.

MR. CALHOUN: All right. Well, any --

MEMBER ZIEMER: Grady, this is -- this is Paul. Quick question about the one case that -- I think was from WIPP that's getting a little long. What's the status of that?

MR. CALHOUN: Uh-oh, hold a second. I don't know. I -- I don't know that that off the top of my head. I'll put Greg on the hook to figure that one --

MEMBER ZIEMER: Are we --

MR. CALHOUN: -- out, but --

MEMBER ZIEMER: Yeah. Are we waiting for more records? That's what I was getting at?

MR. CALHOUN: Not -- I don't know that. So, if any of my team can chime in if -- if -- it sounds like it's -- these are requests to DOE, so that would be something that I would imagine is in their report, but I -- I'm not sure.

MR. LEWIS: And this is Greg. I can look it up. I -- I -- I can look it up while we're talking, while we're on meeting, in our system and see what's going on. I know with WIPP in the past couple years, we've had the occasional case go longer than we would like. I don't know the status of this particular one, but I will look that up.

CHAIR ANDERSON: Grady, could you give us the numbers that -- the attendance numbers at the recent outreach programs?

MR. CALHOUN: Ah, you're killing me, Dr. Anderson. Yeah. I -- I want to say that the most -- the ones that I remember, we went out to Navajo Nation. We were there. We did three separate meetings, and the majority -- these are in person. And there was approximately 100 people each day at

these meetings. And they were in, like I said, three separate cities or towns. And I want to say the Arvada, Colorado one, it was very well attended, too. I want to say close to -- it was over 100 people there, too. And what people do there is, they have the opportunity not only to hear about our programs, but also to file claims. And inevitably, we get new claims filed at all of these outreach events. It may not be a ton, but we do get new claims filed, which is important. And it's just great to talk to people face to face, too.

CHAIR ANDERSON: Right. I know there were some concern, and maybe it's ones that there wasn't enough outreach, but sounds like it's been going really well. And I really think to promote to the community out there, that you can actually fill out your claim at the meeting, I think that's a real help on the draw.

MR. CALHOUN: That's great. Department of Labor does a great job with that. And not only can they -- can they file new claims, they can also check on the status of claims. They can find out why -- you know, a lot of times somebody will file a claim and asked me why I don't have it. And it may be because it's a Part E claim versus a Part E -- B of the claim. So, you know, those are way more well attended than our nicer Board meetings have been. So, but yeah, it's a -- it's a good thing. DOL does a great job with that.

CHAIR ANDERSON: Okay. Thank you. Any other questions? Oh, Grady, just -- the total numbers of claims coming in, is that pretty steady?

MR. CALHOUN: Yeah, it's still -- we're still running about between 150 and 200 claims a month, and that includes new cases as well as cases that

are returned for rework because of something like an additional employment, additional survivor, additional cancer. So, we've been holding steady at somewhere between 150 to 200 a month for -- for years.

CHAIR ANDERSON: Yeah.

MR. CALHOUN: And I don't have to foresee that changing really, you know, because people are always gonna get cancer, unfortunately. And there's a lot of people that are potential claimants.

CHAIR ANDERSON: Any other questions? Okay, let's move on. Put the John with DOL slides up.

DOL PROGRAM UPDATE

MR. VANCE: All right.

MR. CALHOUN: Do you want me to put your up there, John?

MR. VANCE: We can do whatever you want, how's that sound? I actually have if I can --

MR. CALHOUN: All right. Go ahead. Go for it.

MR. VANCE: -- on the screen here. Just let me know that it comes up here, hopefully.

CHAIR ANDERSON: Yes.

MR. VANCE: All right.

MR. CALHOUN: I can see it. Good job.

MR. VANCE: All right. Yeah, it's -- with all these wonderful video platforms, I get to learn how to do it in Zoom, Google, Meets, and everything else that's out there, so. So, well, good -- good morning, everyone. My name is John Vance. I am the policy branch chief for the

program.

I guess I should have started my slides with the fact that all of my health physicists with the program have retired. So, Chris Crawford retired along with Jeff Coach (ph), who I'm assuming many of you would know. I am struggling to maintain some semblance of order without having any health physicists on our staff, but what we have done to replace their services is we've reached out to a service contract under Cataba (ph), who has been assisting us with some of the work that our health physicists in house. Right now, I'm waiting for some Department of Labor struggles to figure out how we can hire new employees based on either remote or telework agreement. And so, my vacancies are caught up in that -- in that dispute way above me.

So, for the time being, I'm going to be filling in for Chris who sat in on these meetings, and that's why you're getting to have me today go through the presentation. And so, you're gonna notice that the presentation was a little bit different than, I think, what Chris has to do. I put together just some different things that I thought folks would be interested in.

And one of the things that you guys were just talking about was our claim intake numbers. So, it sounds like NIOSH is getting 150 to 200 cases from the Department of Labor a month. This is our totals by week of our intake total for Part B and E across our resource centers. So, as you can see, our intake numbers are looking surprisingly high. You know, at this point in the program, I would have never suspected that we had these kinds of numbers, but we are.

Most of these cases are coming out -- the sites that we get the most

cases are coming out of New Mexico and Ohio, but you can see our numbers are being driven by a lot of refilings for new conditions on existing Part B cases, but there are a lot of new cancers being filed in these -- in these incoming claims. So, that's I think the genesis of a lot of the numbers that you're seeing coming through on the dose reconstruction side. So, you know, so a range of, you know, between 150 and 300 cases, and I'm not sure what the cycle is on that, but clearly something was going on in November where we just had a huge influx of cases.

So, this was a slide that I think Chris always had in his presentation. It had to do with the top four work sites where we're seeing the most claims. I think he just used to list out the sites. So, what I did was just sort of show the numbers as well with the Nevada Test site, you know, with 106 cases in July and 60 in August and 78 in September. Savannah River and Hanford following up with Y-12 at the end there. So, the numbers are pretty steady. I don't know that this has changed much. I went back and took a look at some of the prior presentations. It looks like these have been our top four for quite a while. So, I'm gonna assume that that's going to be the case moving forward.

Just a total status. This is a slide that -- that has always been presented on. I'm not going to read the whole thing, but I did notice that our numbers don't always match with NIOSH. Apparently, that's pretty common and they know that there's a continuing reconciliation effort to try to make sure our numbers match. And I am looking at the 1664 cases that the Department of Labor is saying is at NIOSH. That number is actually pretty close to what NIOSH is reporting out from Grady. So, I'm excited to see

that that was pretty close. And I'm not going to recount all the numbers, but clearly, we're busy. We've got lots of work. Currently going through the process, and a huge workload that has been completed over the year. So, that's a really positive outcome there.

Again, just a breakdown. The pie graph on Part B cases filed with regard to the total number of going into NIOSH at 30 percent. You can take a look at the SEC referred cases to NIOSH at 12 percent of our case population, and the SEC cases that have now gone on to NIOSH because they just qualified at 13 percent. I think that other category, based on what I'm looking at, is just all of our other Part B covered conditions, the beryllium sensitivity, chronic beryllium disease, and chronic silicosis. There's been some developments on that side of our program with regard to the expansion of some sites and clarification of some of our beryllium vendor sites, but that really probably isn't something that the NIOSH board is too concerned about.

I took some of our fiscal year to date -- or fiscal year from 2023 data. I thought this would be a little interesting to show people what it looked like for the past fiscal year broken down by different categories of compensation. The one thing you'll notice on this chart is just the sheer volume of our medical benefits being paid out for approved employee claims. It's one of the greatest expansion costs and resources of the program at the Department of Labor is expanding is just medical benefits covering costs of care for sick workers. A big chunk of that cost comes from the provision of home health care. So, a very robust amount of medical coverage for the program and for our workers. We have an expanded medical benefit

adjudication unit that's handling a lot of the costs for evaluating medical benefits, and I think they're up to about 50-plus medical benefit adjudicators. So, that is a very big growing aspect of our program is just managing those medical benefits for our covered employees.

Total payment data for the program. We're up to $6.5 billion total across the program. 1.74 billion paid on dose reconstructed cases that have been approved, and 191 million for SEC cases. So, pretty good numbers. Again, you know, we continue to pay at a pretty -- pretty significant clip based on the data and that last slide from the fiscal quarter -- or fiscal year for 2023.

Operational plan statistics. When we're talking about operational plan data, that is basically performance measures that the Department of Labor tracks internally for evaluating overall performance with particular metrics for case adjudication time lists and various other data that we record. And so, I thought this would be just something interesting. This is, again, for fiscal year 2023.

Total of 11,411 cases -- claims received. We referred 3654 to NIOSH. Four hundred -- 4366 returned to NIOSH, so there was probably a differential in the -- in the data about how we track those statistics. And I did put in there that once we receive a completed probability of causation and dose reconstruction proc -- you know, that process is complete, we're issuing the -- the recommended decision to the employee or the claimant within 40 days of the dose reconstruction receipt in 97 percent of our cases. So, I thought that was a pretty good metric to share with everybody.

There were questions about our outreach activities. Anything Grady

covered -- covered participant list. I was trying to get the participant numbers for all of them, but because I couldn't get them for all of them, I decided to put them in for none of them. But my understanding is that the outreach events, like Grady said, have been well attended by participants. We also sponsor a webinar series. It's a recurring series of webinars the program sponsors. These are publicly available. I think they are by invite, But anybody that requests an invitation, gets them. So, these webinars are generally talking about different program activities, subjects relating to case adjudication, medical benefits, or any other topic that relates to the adjudication of cases, either Part B or Part E. And so, they -- they cover quite the gamut of different topics. So, you can see here, we've talked about survivor eligibility in one of the webinars; medical benefits, which was very well attended if I recall; and then we did a -- I think it was an interagency discussion on hearing loss claims this past November. And I think Greg might be able to provide a little bit more background on that one.

And then because I'm the policy branch chief, I felt it was really important to share with everybody that we do have a -- an updated edition of our federal employee procedure manual. This is our staff manual that describes how we do the work of the program. I just thought it would be interesting to share with everybody some of the work that we do in conjunction with our procedures. This is a very important document that our staff utilizes in doing their job on a day-to-day basis. And it's just something that we make available to the public for reference and transparency, but the procedure manual was updated about twice a year. We just released our most recent one and past the month. We're up to

version 8.0. This process that we go through in publication of updates or procedures is something that really is a result of us interacting with our staff on issues that they're confronting or interacting with stakeholders that are asking us to take a look at different processes and how we should be handling different issues that have arisen during our administration of the program.

And so, just to list here, folks can take a look at -- at this. I'm not going to go through each one of these, but I was just going to highlight one. This follow-up actions for unreturned EN-20 form. Interestingly enough, the program has had experience where we have gone through our adjudication process, we have awarded benefits, we have issued a request for someone to identify where they want the money to be deposited, and that person never responds to our requests for where they want the money sent.

So, after encountering this more frequently, for some reason, it was decided that we really needed to take a more proactive approach in trying to figure out what are the reasons why people aren't -- aren't returning these payment deposit forms. So, we have come up with a new process to make sure that we are reaching out to those payees to figure out is there something that is causing them not to want to return it, maybe we have a bad address or somebody that doesn't understand what they need to do with regard to the form or whatever. So, we now have a new process that's going to require us to reach out to those payees to try to get them to return those forms in a more timely manner.

So that was just an experience that we encountered that resulted in an update to our procedure manual. And if anybody wants to actually take a

look at our manual, it is available online. And again, these updates occur fairly routinely on a -- on a -- on a biannual basis, but we can actually update the procedure manual as things occur.

So, with that, I'm going to ask if anyone has any questions or any comments.

CHAIR ANDERSON: Thank you. Quite a lot of work going on. It's always interesting to see. You added a few other things to the presentation. I think they were very good, so I thank you.

MR. VANCE: No problem.

CHAIR ANDERSON: So, let's move -- move on to -- if there's no other questions, DOE. Greg.

MR. CALHOUN: Greg, do you want me to do your slides, or are you gonna do them?

MR. LEWIS: Can you hear me?

MR. CALHOUN: I can hear you, sir.

MR. LEWIS: Yeah. It's up to you. I guess, if -- I guess it's -- actually, do you want -- do you mind doing it, that way --

MR. CALHOUN: No, I'll -- I'll do it. Just -- just tell me when to move, but I wanted ---

MR. LEWIS: Yeah, --

MR. CALHOUN: -- Dr. Ziemer, because of our crack staff, we got an answer for you already. And basically, that one WIPP case is a case for which we are waiting on visitor information. So, if during a CATI interview, the claimant states that hey, I either worked here or visited this site for some kind of official duty, then we make a request to those sites to see if

there's any dosimetry or even record of them being at that site. So that's -- that's why it's there. So, we're waiting for that a little bit of information. But I have just spoken to the team, and we may just put that out. We could possibly do that dose reconstruction and always revise it once we get the new information. But that's -- that's the deal with that one.

DOE PROGRAM UPDATE

MR. LEWIS: All right. Well, if you want to call it my presentation -- actually, while you're -- while you're doing that, I can add, I did look up at our system and I do see one outstanding for WIPP. It wasn't marked as a visitor request. I probably could have seen that if I went into the claim. But there is -- there is an outstanding request that's -- that's later than we would want for WIPP. I assume we're talking about the same gentleman because it was a NIOSH request. So, I've already emailed the site, and I'm following up with them after I get off this meeting today to make sure that we can get that expedited. I know the WIPP has -- you know, had some IT issues with their radiological controls information recently. I'm not sure if it was caught up in that, but we will make sure to get that response back to NIOSH as soon as possible.

So, I -- I'm not seeing a presentation. I don't know if that's just me. Oh, wait a minute. There we go. Okay. Next slide.

MR. CALHOUN: Hold on. Come on. Come on now. Let's see.

MR. LEWIS: And while we're waiting, I also --

MR. CALHOUN: There you go. You got it?

MR. LEWIS: Yeah. Yep, that's -- that's perfect. And I was -- in

preparing for this, I was gonna put up the outreach meetings, but for the last couple of meetings, I -- you know, both NIOSH and DOL have been covering the outreach meetings, so I thought folks didn't need to see it for a third time, but we are participating in those meetings. We have our own series of former worker program virtual outreach webinars talking about a specific topic, so if folks are interested in those, that you can now get access to those on our -- the DOE former worker program website, but.

So, just -- I'm Greg Lewis, the director of the office of worker screening and compensation support within DOE, and we handle the department's responsibilities for the EEOICPA program. And then we also administer the former worker medical screening program, which is not directly related to the EEOICPA program, but a lot of the same folks do participate in those. And it can be a precursor to participating in the compensation program, so I always make sure to mention it.

A couple of news items since the last meeting, actually just earlier this week, so a very recent news item. We -- we just rolled out an update to our SERT system, our secure electronic records transfer system. For the most part, the changes had to do with the interface between the Department of Labor and DOD, kind of adapting. A few years ago, DOL had gone to a model where claims went nationwide versus regionally being assigned to the district office. That -- it kind of caused some hiccups with our SERT system. And, you know, we had created work arounds, and it wasn't something that that we couldn't deal with, but the process was slightly more inefficient in our SERT system. So, we decided to kind of adjust some things and do a little bit of new development to make that work smoother. NIOSH did

participate in the process to make these changes. But I think that the -- the process -- the changes that we made, were mostly helping our -- our interaction with DOL. Anyways, that's rolled out earlier this week. So far, it's gone very well. This isn't something that the public would see, but we do believe that it will enhance our ability to respond quicker. It'll be more efficient communication between all three agencies to make sure that we're providing the right information or if there are questions on either end, we can go back and forth. So, we're looking forward to improved efficiency there.

And then the other item is our -- for our former worker medical screening program, we have a goal to increase the screenings in New Mexico area this year. Formerly the screenings in New Mexico were handled by a cooperative agreement holder, the Johns Hopkins University. They are still involved, but the Johns Hopkins University former worker program is merging or combining with our worker health protection program administered by Queens College, which is another of our cooperative agreement holders. Those two are merging with the additional resources and administrative capacity with Queens, along with the medical knowledge and the experience of screening workers in New Mexico with Johns Hopkins.

We believe we're going to be able to provide quality screenings to many more individuals. We're looking to up our screening from 100 to more like two or 300 per year down in the New Mexico area. So, we're -- we're going to be focusing on outreach. As you saw from -- from Grady's slide, I believe there's already tentatively some outreach planned in the New Mexico area, and we're going to be doing quite a bit of outreach on our own for the

former worker program. So, spread the word. We are really looking to let workers know there will be opportunities for screening, and we'd like to get them in.

Next slide.

And -- and this, my next slides are kind of my -- my -- my usual slides. I'm going to go through them fairly quickly because I know Board Members have -- have seen this. If there are members of the public or -- or new folks and -- and there's questions, please don't hesitate to stop me or ask me to slow down.

MR. CALHOUN: Is that the right one there, Greg?

MR. LEWIS: Yep, that is the right one.

MR. CALHOUN: All right.

MR. LEWIS: So -- so, DOE has three responsibilities with the EEOICPA program. We respond to DOL and NIOSH for individual records request to support -- to support individual claims. We also provide support to both agencies for large-scale records research or site characterization projects, like site exposure matrix updates for DOL and special exposure cohort research projects for NIOSH. And then the third responsibility, which is smaller but equally important, is to research covered facilities. And we almost always have a few covered facility research issues going on, either designating new facilities, removing facilities, or adjusting the -- the time frame or the description of those facilities.

Next slide.

And so, for individual records requests, claimants often worked at multiple sites. As you saw with -- with Grady's recent explanation about the

-- the claim that's overdue, they are site visitor. They -- someone could have worked in multiple sites. They also could have visited sites for special projects or collaboration between facilities. So, there is quite a bit of movement within the DOE complex, so that creates some challenges.

And then also, you know, these were good jobs in these areas typically. So, folks, you know, often stayed for 20 or 30 years on site, so they might have had many different job titles. They could have moved between facilities on site.

And the contractors at these sites changed. Sometimes they changed frequently, sometimes they didn't. But, you know, we can have records that are in different formats, different databases, you know, there were different ways to manage records. So, we often have to go to multiple different places for one worker's records.

Next slide.

And for the large-scale research projects, you know, we're essentially responding to DOL and NIOSH's needs. They're a customer, so we try to provide them with the records that they need as quickly as possible. You know, given their timelines. Sometimes we have to review for classification or sometimes it can -- can take a little bit of back and forth to identify the right records, but we try to do that as -- as quickly as we can. I had just gone back through my emails to see, you know, who we're working with recently. And I know we've -- we've recently responded to data capture request for Lawrence Livermore, the DOE Office of Legacy Management, the Y-12 National Security Complex, and the Hanford Site.

Next slide.

And so, many of these requests require a classification review. And also, final NIOSH reports and even some draft NIOSH reports will require a classification review. With the reports, we're typically able to get those back within a week or two. Now, with the actual source documents, you know, again, the NIOSH-generated reports tend to be much -- much shorter, whereas some of the source documents can be, you know, 50, 100, couple 100 pages long or, you know, NIOSH or DOL can be requesting an entire box of records or a few boxes of records.

So, classification review on those larger source-document requests can take, you know, weeks or months depending on the volume. But the reports are typically a couple of weeks. So, we really try to focus on the reports and get those out. Those larger requests, we work with the requester, whether it be NIOSH or DOL, to -- to come to an agreement on the time frame. We also sometimes can prioritize those. You know, this -- this section is what we need quickest, and we'll work on that first to try to get that out. And, you know, then we'll -- we'll break it up into different subgroups according to the priority of the requestor.

Next slide.

And facility research, there's over 300 facilities, and I think close to 350 facilities covered by the program. My office updates and manages the covered facility list, which if you can go to the EEOICPA website, you can find it. I think DOL and NIOSH also link to it.

Next slide.

And then I just always try to mention our former worker medical screening program. Again, it's not direct -- you do not have to participate in

the screening program to participate in a compensation program. And in fact, we really encourage folks, you know -- the -- the goal of a screening program is to catch conditions early before you have symptoms or before you're noticing something's wrong. So, you know, for those of you who are out there in the worker community or associated with -- with unions or -- or working with -- you know, with current or former workers, you know, please mention this program. You know, the best time to come in is before you feel sick. All former workers from all DOE sites are eligible, can participate in the program. We can find -- we can get them screened close to their home, either directly by our programs or by clinics that we contract with. And if they have a finding with the program, we can help guide them. We do not provide follow-up care, but we can maybe give them a recommendation, hey, you know, you really need to go -- you need to go see your primary care doctor or you need to go see a pulmonologist, you need to get, you know, this checked out.

And then our former worker programs are very familiar with the hazards someone might have faced on site. And so, when they can, they're going to be able to write a results letter that potentially can link the finding that they've had within the foreign worker program to the exposure that the individual has experienced in their work and at a site or DOE site. So, it can be -- the documentation we provide can be very useful for a compensation claim. So, I would encourage all of you to spread the word if you know folks that are former DOE workers that are eligible for this program.

It's a great program. And, you know, if they participate, the worst that can happen is they get some peace of mind and a clean bill of health.

And if there is something that we find, hopefully we're finding it early when it's more treatable and going to lead to a better medical outcome, so.

And I think that is the last slide. Are there any questions?

CHAIR ANDERSON: Okay. Any other questions -- any questions?

MEMBER ZIEMER: This is Ziemer. I have one question. The office called the "Legacy Office," what -- what's the name of that? National Legacy office?

MR. LEWIS: Yeah, so that's --

MEMBER ZIEMER: Where is that?

MR. LEWIS: -- the -- that's the Office of Legacy -- great question. And I should have explained that. Thank you for --

MEMBER ZIEMER: Where is that located?

MR. LEWIS: So, there are a few different locations. I think the primary office that handles records is in Morgantown, West Virginia. But the DOE Office a Legacy Management, or LM as we refer to it in DOE, is the office that handles responsibilities for the closure sites within DOE. A major responsibility is records, but they also kind of do some of the, you know, environmental monitoring. They have the people going out and pulling samples from, you know, say the -- the ground out at Rocky Flats. They handle the mills in mines, places like Mound, Fernald, Pinellas. But any DOE site that is closed, the records are gonna go to the Office of Legacy Management. So, in Morgantown, West Virginia, they have a large record storage facility, but they also have other offices in Denver, Grand Junction. They have staff and other places as well. But essentially for the purposes of the EEOICPA, they handle the records for the DOE sites that have closed.

MEMBER ZIEMER: Thank you.

CHAIR ANDERSON: Any other questions? Okay, let's move on.

MR. CALHOUN: I guess Brad's next, so I'm off the hook.

CHAIR ANDERSON: Okay. So, let's move on to Pinellas work group, Brad or Steve.

PINELLAS WORK GROUP

MEMBER CLAWSON: Thank you, Henry. I appreciate that. Just so the Board knows, we had Pinellas work group meeting here a little while ago and went over some paperwork, which has brought up -- one thing I want to make sure that people understand is, we have to take a section in time and do our report from there. Since that time, Dr. DeGarmo has given us an awful lot of information, more information that has come in that we're evaluating at this time. But I'll -- I'll turn the time over to Steve Ostrow and let him go through the presentation, and then we'll take questions after the end of it.

DR. OSTROW: Okay. Good morning. This is Steve. Let me begin the slides here, if I can share the screen. Ah, here it is. Okay. Can everybody see it?

UNIDENTIFIED SPEAKER: Yes.

MEMBER CLAWSON: Yes, Steve.

DR. OSTROW: Okay. I'm gonna go to full screen. So, it's a relief when this actually works, you know, to present the screen and all that. Okay.

As was just said, this is -- we did -- we had a work group meeting on

November 20th, which was only, you know, three weeks ago. And the purpose of that was to discuss the SEC-256 that's outstanding. And the meeting itself is (indiscernible) an update on the activities with that.

And the -- so, I'm going to present the same set of slides, but with some additional commentary. There wasn't any time between the work group meeting and now to do the update for production reasons and clearance reasons and all that. So, I'll try to do that -- that -- just a background. That meeting that we had on November 20th, there were -- there were actually three presentations that were done. NIOSH first presented their SEC petition evaluation report. I presented our review of that report. And then NIOSH responded to my review with their comments on our report. So, we actually had three things. And as we said before, all this material is available on the public NIOSH website if anybody wants to see the entire reports, transcripts, etc., etc., etc.

So, with that said, also -- while I'm updating today, I'm going to verbally summarize the last part of the meeting where NIOSH responded to my report, and I hope I get it all right. And I invite NIOSH people to make any corrections to anything I say if I got it wrong. Okay.

So, some background. The -- our report reviewed the -- the ER, and it also had three appendices that we put in that -- just for interest. I have good information. The first appendix, Appendix A, has DOE Tiger Team report. As a lot of the old timers remember, in the 1990s, early 1990s, DOE went ahead and did Tiger Team evaluation of a lot of the major labs at the weapons complex. So, the one that was for Pinellas was in 1990. And the Appendix A that I put here highlights the items in this Tiger Team report,

which is quite long, that appear relevant to the SEC.

The Appendix B we put in, also for interest, that -- we went ahead and summarized all the incident and health physics investigation reports that might have involved a radiological release or contamination or personal exposure. So, this is everything we could find about radiological incidents.

And finally, the Appendix C. We went through all the worker interview notes that we could find or we had, and we summarized them. This was also sort of background information and it's very useful.

The -- for those who aren't involved with Pinellas, I have -- I'll have to give a little background information. When we did our interim review -- and the reason we put the word interim, it wasn't like a weasel-type word. It's because this is an ongoing process. This is a snapshot in time. We reviewed a lot of stuff. NIOSH has done a lot of work. But new material is still coming in, and there's still some issues we have to deal with, so that's why it's called interim.

When we reviewed the SEC ER, we had no findings but 13 observations. The report summarizes the plant history, discusses the radiation sources and the types of radiation sources, examines radiation monitoring procedures, and the pre and post 1990 Tiger Team report. And we'll see a bit later that's -- that's a division point, because the Tiger Team report was basically operations up through 1989, and post Tiger Team report, Pinellas made significant improvements in various processes and procedures that they had. So, that was really a break point.

And finally, we were very concerned with this. It's -- and the Board was. Does the ER adequate -- adequately address all the petitioner

concerns. We've been -- there's a lot of petitioner concerns that have been articulated. And does it incorporate all the worker interview information, and does it account for all the relevant reported radiological incidents.

Some background for people who aren't familiar with it. It's -- it was located on about a 100-acre site in Clearwater, Florida. It doesn't -- it's not there anymore. Constructed in 1956 and operated through 1994 by GE, and originally it was intended to manufacture neutron generators, which are used in -- to trigger nuclear weapons. The -- after 10 years, they started making other things there, such as RTGs, which are radioisotope-powered thermoelectric generators. Since it's isotope powered, they're also a source of radiation. Peak operations, plant employed about 2000 people total. It went through D -- D&D activities from '94 through '97. And finally, it was remediated in 1999, 2008, 2009, and returned to general use after that, nonradiological anymore.

This is the background of the SEC. And this is intended mainly for people who are interested in digging deeper into it. The -- NIOSH received the SEC from the petitioners in 2019. Petitioners revised their class definition twice. NIOSH qualified the -- the last revision in October 2020. And 2021, October, NIOSH completed their SEC petition evaluation report. They presented the -- their evaluation at the December 8, 2021, Board meeting.

We issued our interim review report -- that's the one we're discussing now -- June 16, 2023. And just because of production issues and so forth and so on, our report is up to date through around March of 2023. Anything that happened after that, we didn't have yet -- we couldn't include. And as

I'll mention later in more detail, that subsequent to the -- to March 2023 when we closed out writing the report, we received more information from the petitioners' representative. And in fact, we've received several batches of new information that hadn't been formally evaluated yet. We've looked at them, but they haven't been evaluated.

The SEC itself. The -- I think the initial petition of August 17, 2020, proposed a period from January '57 when the plan began through December 1997. NIOSH determined the petition qualified based on two-step -- statements that are in the Tiger Team report, and they wrote them down there, quoted it, that General Electric, estimated at 20 percent of the personnel that terminated in 1988 did not provide a termination bioassay, so that's a deficiency. And 70 percent of the required monthly samples and 35 percent of the required weekly samples were not submitted. So, that was enough information for NIOSH to decide that this was qualified petition.

The -- since the -- since the Tiger Team report of 1990 had some findings, but Pinellas cleaned up its act. It was necessary. They adequately and promptly addressed the bioassay compliance issues, which was the main issue. So, NIOSH decided to terminate the class at December 1990, rather than the earlier petitioners' request for December 1997. So, that's the -- and at the bottom of the page, I have what -- the actual classes. It runs from January 1, 1957, through December 31, 1990.

What are the conclusions of the SEC petition evaluation report? Well, NIOSH asserted that they can reconstruct the doses during the proposed period. And using the language they concluded they had the access to sufficient information to estimate the maximum radiation dose for every type

of cancer, which radiation doses are reconstructed. Therefore, NIOSH does not recommend adding the class to the SEC. And this is one of the purposes that -- that SC&A is reviewing all this to see is this true, can NIOSH adequately reconstruct the -- the doses.

First statement: SC&A believes that it may be possible to bound doses. That was not the greatest statement that I made here. That's a little bit weak. That we -- when I say that we believe that we didn't find any showstoppers in the review, it's -- we're going to require some further review, analysis, looking at other things in the past forward. But we didn't see anything that obviously precludes bounding the doses.

And we had an issue -- well, find -- not really an issue -- that it is yet to be demonstrated that a suitable coexposure model can be developed for other soluble tritium compounds. NIOSH disagrees that they don't think a coexposure model is necessary.

The ER -- and our review rely in part on the technical basis documents, TBDs, because that has the -- the data and the history of the plant and so forth. So, we had to review the TBDs in the course of doing this. So, NIOSH produced the original set of TBDs in 2005 and 2016. SC&A assess the TBDs and identified 11 primary eight secondary issues. NIOSH revised the TBDs in 2011. Okay. The next statement -- this is a misstatement. I was corrected by NIOSH after I produced the slides, and they -- they're correct, and we agree. The -- as of the August 9, 2016, ABRWH meeting, all the issues were closed. So, just scratch out this bullet point. So, the TBDs have been reviewed by us. All issues have been closed by the Board.

And the final statement is correct. The bases for the -- for many of these assertions and methods in the ER have already been reviewed favorably by both SC&A and the Board. So, we're not starting this from scratch.

A little bit -- I'm not gonna spend a lot of time on this, but where does the radiation come from in Pinellas, what are you protecting against, where did the exposures come from. So, there's two different categories. You have radioactive material. Can be either sealed or unsealed. And these are radioactive materials that are always radioactive. And they're always emitting radiation versus radiation generators. They're -- for example, neutron generators don't produce radiation unless they're actually switched on. So, it's the two classes of radioactive materials we have to look at.

Neutron generators contain tritium targets in them. So, they're a radiation generator. The RTGs contain plutonium dioxide, so they're in the first category to radioactive material. Where else is there radiation? They have some borosilicate glass structures containing uranium with -- leak testing systems use Krypton-85. Tritium storage systems, which may also contain uranium beds. Very often they use uranium as a gather material to entrap the tritium and hold it, so that's radioactive. And they had various small check sources and analytical standards for lab analysis. So, what are the potentially dispersible radionuclides? And obviously tritium, Carbon-14, Nickel-31, Krypton-85, Plutonium-238 and 239, and the uranium isotopes. These are potentially.

Where could external exposures come from? Well, the usual photons, neutron generators, the RTG production area, chem labs, beta, it's electrons.

Tritium is the primary source of beta radiation, Krypton-85, Carbon-14 is used as a tracer and some of the solvents. I didn't know that. Neutrons from the neutron generators; makes sense, and the RTGs, which are a continuous source.

The ER claims that the majority of the workers of the work performed at Pinellas did not involve exposures to external sources of radiation. And this lack of external exposure potential is why the plant to not monitor many workers for external exposures, because there was only certain areas that could produce external exposures.

Going to internal exposures, and which way do the nuclides -- could give them an external exposure. And we'll go through these quickly. But these are the -- the sources. The ER asserts that tritium is the only source of internal exposure risk. The ER references the internal dosimetry TBD for guidance on reconstructing doses from tritium, particularly. And that can come in different forms. Gas, oxide, organically bound tritium, which you can pick up from bioassays. And the very claimant -- in a very claimant favorable approach, NIOSH calculates exposures to 100 percent tritium gas and 100 percent organically bound tritium and selects the most claimant favorable, and that's what's assigned. And the other class, which is a little bit different, we'll talk about in a minute. It also assumes that workers are exposed to insoluble tritium compounds that metal tritides, were also exposed to soluble tritium, which was monitored. So, if they found -- if they bought it took for soluble tritium and had any reading, positive reading on it, they also assume for dose reconstruction that metal tritides were present also. It's a very claimant favorable approach.

The tritium exposure and how to determine dose has been a subject of concern ever since SC&A's earliest TBD review. And the next bullet, as I stated before, is not applicable now, that we closed all the issues in our review. So, that's not -- the tritium is not an issue anymore.

These -- as I promised, stable metal tritides, this is the subject all on its own. ORAUT has an OTIB out, 066, (indiscernible) distributions 2020, that gives guidance on how to calculate doses from intake of special tritium compounds of which stable metal tritides are such. The -- what are they exactly? They are tritium compounds that can't be detected by urine bioassay -- assay as easily as tritium oxide. Stable -- they say stable. It's radioactive, obviously, but chemically it's pretty stable. It's used to indicate that tritium is not easily separated from the metal matrix in which it's bound. And this material is more strongly retained in the lung, which results in a much smaller fraction of the intake excreted in urine. Therefore, you can have a small urine analysis result but a -- but a much larger intake of a -- a special metal tritide.

We reviewed -- SC&A reviewed the OTIB-66, rev. 1, and all issues were closed, and the methodology was accepted by the subcommittee on procedure reviews in November 2021 meeting. So, this is -- we reviewed it and accepted NIOSH's methodology for handling the special material.

Just mention that the current internal dose TBD, which is up to rev. 3, was issued prior to the OTIB-66 revision 1, so the -- so, current one doesn't have the guidance in it, internal dose TBD. And we assume NIOSH will put it in the next time they revised internal dose TBD. Wherever NIOSH -- even if it's not in there, NIOSH is certainly aware of it and would use it for dose

reconstruction.

In going through the -- the different sources, okay. Where's uranium? Where do you get it? Depleted uranium was used the tritium storage beds that -- one of the issues from the original TBD review concerned the potential missed depleted uranium intakes from inhalation of loose DU from cuttings and machining of the beds, since it's uranium beds. But a NIOSH investigation and our review of it established that such activities were conducted offsite at a GE plant in Milwaukee, not at Pinellas. So, it's not a Pinellas issue.

Pinellas also borosilicate glass containing one-and-a-half percent by weight of naturally occurring uranium. And as part of plant operations, the glass was cut and chemically etched by the operators. The -- we have records of the site health physics people evaluated exposure risk -- risk and determined that minimal external, no internal hazards were presence from the -- present from this.

Going on to plutonium. This is also an issue that's been discussed since the initial review in 2006. Okay. Where's the plutonium? As part of manufacturing the RTGs, Pinellas received the triply encapsulated RTGs and didn't open them. They didn't manufacture the RTGs there. So, the only chance of exposure was from surface contamination, and the health physics' records show that the surface contamination levels of capsules were quite low. This was resolved at the October 2011 meeting by the work group, so no further consideration is necessary unless new information becomes available. As far as we know, the RTGs didn't leak. Nonetheless, for this particular ER review, we revisited the potential for plutonium exposure

beginning with more detailed look at the form, handling, and plant operations and concluded that the potential for plutonium intakes had been adequately addressed and resolved. So, we took a look at it again because it's -- it's an important issue.

Carbon-14, we have records from the State of Florida on how much -- approximately how many curies of Carbon-14 were released from the plant stacks. This was discussed by SC&A and the -- the work group in 2009 and concluded that the quality of materials released was determined to be negligible and contributed less than one millirem per year dose, and the work group considered the issue resolved. So, unless new information comes in, it doesn't look like Carbon-14 makes any significant contribution.

Krypton-85, we also have real records on that from the State of Florida. This was how many curies of Carbon-85 -- Krypton-85 went up the stack. And krypton is a mobile gas and doesn't react chemically within the body. So, when it's breathed in, it's soon breathed out again. And since it has a -- over a 10.8-year half-life, little decay occurs in the lungs. The ER asserts that Krypton-85 is not a significant internal exposure has -- hazard, and we concur with that.

Three of them here: Strontium-90, Cobalt-16, and Thallium-204. The petition originally requested that Pinellas be added to the FCC, partly based on the claim of incomplete radiological characterization of these three radioisotopes and beryllium. And beryllium, we don't consider since it's not a radionuclide. It's a hazard but not a radioactive hazard. That -- we didn't find -- we concluded that we didn't find the presence of the three radionuclides in the Pinellas inventory represents a significant internal

exposure risks that should have been monitored. And we give some reasons for that. So, we don't think that they -- they pose the hazard and didn't need monitoring.

So, after we looked at sources, we also looked on the radiation monitoring data itself. And we looked before and after the Tiger Team review. The SEC -- or the ER states for the SEC period that both external and internal dosimetry results are available. Claimant records provided by DOE generally include both internal and external dosimetry results -- results for potentially exposed workers. Pinellas did monitor potentially exposed personnel, and SC&A and NIOSH didn't find indications of lack of monitoring for the class under evaluation. So, NIOSH concludes it has sufficient data to perform dose reconstructions.

So, looking at the continuing radiation monitoring for the pre Tiger Team -- (indiscernible) one of the first presentations here, that Grady give -- gave today, he mentioned that the problem -- you know, we don't have NOCTS up and running and we don't -- we were hampered by other sort of database problems. So, we didn't have access to the searchable NOCTS database to analyze claimant the data. However, NIOSH did provide us as sort of a workaround about 2500 documents, and we manually reviewed them. And we base -- we reviewed the -- so, a little bit cursory -- it was based on the titles on the ones that could potentially contain bioassay or external dose data and found that the data contains tritium and some plutonium bioassay results, as well as external monitoring records. And at the end, based on this sort of screening, manual looking at it, we can't make a definitive judgment on the adequacy on the internal -- of the internal

dosimetry data during the SEC period at the time of the review. We didn't find anything necessarily wrong or any problems, just that we couldn't do a -- a -- a thorough enough search of the database. Hopefully in the future, we might be able to do so.

And for the post SEC period, 1991, after the Tiger Team, NIOSH ended the petitioner requested SEC period at December 1990 because Pinellas significantly improved its monitoring performance post Tiger Team. And post Tiger Team, on the right-hand side, looked at bioassay compliance tracking results from 1990 to 1995. And the annual ALARA report, which we reviewed also, says that the program improved the 1990 report, just right after Tiger Team, states at the bioassay program average participation was 78 percent. The target was 80 percent. That was a target value. This is pretty close, and it's -- it's definitely an improvement. So that gave justificate -- one of the things that gave justification for cutting off the SEC period in 1990 rather than letting it go longer.

Okay. We had observations related to bioassay data. The -- and I'm going to attempt to give a summary of how NIOSH responded to this at the work group meeting. It's not written down here. But we -- we observed lack of bioassay records from 1988 to 1990. There were only -- and the ER listed about three to 10 claimants per year available, approximately -- for approximately 1750 employees. That seemed like not much for us. NIOSH responded at the work group meeting: This is ER data, that NIOSH has access to a much more complete set of the dose reconstruction. So, that's -- so they -- when they do those who reconstruction, they use a much larger set than this. And their response -- the slides in their response had a table

that showed the available data.

Our observation -- whoops -- observation five that the bioassay schedule noncompliance -- that the -- it's -- it's documented that -- and this was one of the Tiger Team findings, that the -- although the plant had a procedure for doing bioassay -- bioassays, they didn't always follow it for one reason or another. The -- whether it's adequate or not adequate is subjective judgment that the Board has -- the Board has to decide on what's adequate and what's not adequate. And we've made a comment that they could use a coexposure model to address incompleteness and the tritium bioassay program. At the November 23rd work group meeting, NIOSH stated they believe that demonstrating a coexposure model is -- developing another coexposure model is needed. And there were various reasons on that, and we have to look at that later.

Going on, some Tiger Team findings. There are a bunch that -- I'm not gonna run all through it, but when we looked at it, the Tiger Team praised various things that NIOSH did. Like, they liked the overall radiological protection program of Pinellas. But that's sort of a programmatic comment, and it doesn't necessarily mean they follow it, and NIOSH concurred with that. Observation seven: The bioassay sampling frequency requirements weren't followed. So, they had good procedures but didn't necessarily follow them. That was a comment. NIOSH agreed with that also. They concurred. We found that contamination controls were genuinely good. NIOSH commented, yes. There were some transient conditions of contamination that means where they -- they had some contamination here and there, but they were transient and they don't affect

the actual dose reconstructions. Observation nine, bioassay sampling program of implementation inadequate -- inadequacies. NIOSH concurs. Then, deficiency root causes. I mean, why did they have these deficiencies? Tiger Team said was the mindset of production. That's one, that, you know, that they wanted to turn out product, and they didn't think there was any unusual risks in doing this. Then NIOSH agrees, but this is not a dose reconstruction issue. It's more of a mange -- it's a management issue. And 11, so, the transition year of 1990 after the assessment led to overall reduced exposures, and NIOSH concurred with that also.

And moving on. We looked at all the CATI reports that we could find. There were 490 available. And we looked through indications of internal and external monitoring in -- if there were any incidents, with their follow ups. We didn't have access to the individual claimant monitoring files to compare CATI statements to relevant dosimetry records. That would've be nice if we could see that, if they're consistent with each other.

And some statistics -- 16 percent of the CATIs indicated that the employee was involved in the radiological incident. This is to the best of their knowledge. Thirty-eight percent of the CATIs stated that the employee received urine analysis, after an incident, if they did have an incident. And I want to go -- so forth. The last statement though, the number of employees involved in incidents might be underestimated if using the CATI information alone, so we really have to get into the employee records to see what was treated.

We didn't have access to actual dose reconstructions at Pinellas, which would have been useful to see how the does recon -- the doses were

actually calculated by NIOSH and what information was there. But fortunately, we had a couple of cases in hand that, as part of our dose reconstruction effort, we reviewed a few of them ourselves. So, we had a few in hand. So, we -- we looked at the at the ones that we did, and we compared it with the CATI reports, and the NOCTS history of it. So, we couldn't use this comparison to tell if the records are complete, but we could use it more broadly to identify the presence or absence of records. And this limited sample that we did, the comparison shows that the internal monitoring records match the claimant record -- claimant recollections reported in the CATI. So, that's good that this shows that the records match what the employee actually thought about it.

The external monitoring results are less conclusive. Several claimants reported being externally monitored while the external data were not available at the time of the dose reconstruction. So, we don't know if that really holds up without looking at the NOCT files -- NOCTS files.

Record keeping, okay. This is how the -- this is between DOE and NIOSH. We reviewed the procedure used for obtaining claimant records and found out occasionally all the claimants' records and other information are not contained in the files that DOE sends to NIOSH following a record request from NIOSH. NIOSH follows up on these things, and they're -- have been placing -- they have placed and are still placing all the documents in the SRDB system. So -- and SC&A is behind them this a little bit because, while we were doing the report, there were still records being placed from data capture being placed in the system. And just following normal procedures, NIOSH reworks any cases when they get new information for

noncompensated DR that's been completed. They rework the case to find out if there's any impacts.

I mentioned before, we looked at all the interview summaries to determine if they contain information pertinent to the SEC evaluation. And Appendix C of our report summarizes all the interviews. And the -- the interviews are -- fortunately, reflect the total period Pinellas operated, from beginning to the end, and encompasses a broad range of professions and job categories. So, it's pretty broad. And our observation 12, which NIOSH concurs, that general -- the regulations -- recollections reported the interviews are consistent with those in the ER.

Petitioner concerns -- so this is important. Everybody's concerned about this. Did the ER address the petitioner concerns. The ER identifies and addresses nine different concerns, which are extracted from the petition. It's -- the petition itself. We looked at the petition and categorized the same set of concerns into 12 different issues, not that there were more issues or concerns, it's just we categorized them differently than NIOSH did. And we determined -- we went through every issue, it's in our report -- we determined that each of the 12 issues were addressed by NIOSH to various extents in the ER, although not always explicitly point by point. But the ER covered all the issues.

The -- and the last bullet that common practice employed by NIOSH is to assign job titles, work locations, and work processes for any given year or dosimetry exchange period based on the information provided by the claimant or in the employment records. And the last sentence is important. When in doubt, NIOSH assigns parameters that yield the highest doses.

We've seen this many times when we reviewed dose reconstructions.

The -- after the petition was received, up to and beyond the time SC&A was preparing their review, as I mentioned, there's a -- we've had a steady stream of petitioner representative communications -- so we took a preliminary look at submittals made after the December 20, 2022, Board meeting, which had a session on Pinellas up to the beginning of March 2023, actually when we had the cutoff date for this, for our report. And these -- so, we looked at his new concerns and submittals through March of 2023. Involved a bunch of subjects -- leaking plutonium. I put that in quotation marks because it's not -- we haven't ascerturned what -- ascertained if there was leaking plutonium; a multiple myeloma study, which might be relevant; history of incidents report; metal tritide issue; the occupational internal dose TBD; the Pinellas plant environmental baseline report; our request to investigative a report on cancer incidents in Pinellas County; and some nontechnical or not relevant communications. So, we've been reviewing this, as I mentioned, up to the -- up to the current time, but not a formal review yet.

So, observation overview -- and I discussed a lot of this -- with no findings but 13 observations. We're concerned with compliance in particular with bioassay program requirements for the Tiger Team assessment in 1990. And the -- this is summarized observations 2, 4, 5, 7, and 9 about compliance. And this -- I am hesitating to -- or I'm not going to read all this. It's a lot of material here.

I'll just say observation, one, the neutral -- we looked -- we have been trying to find out that actual production at the plant, and we only could find

one record that showed production over time. And we reviewed it, and we found that neutron generator production was fairly steady from 1974 to 1993. NIOSH concurs. One of the things for the path forward that we discussed at the work group meeting, we'd very much like to find out more information about how the plant actually operated day-to-day production, how much they produced, how do they produce it, more information would have -- it'd be good to have that.

Observation two has to do with potential tritium contamination that -- there should be after "is" probably a not. So, it may not have been adequately addressed. It's a question. NIOSH -- we discussed at the last meeting, NIOSH will update the internal dose TBD as necessary.

Observation three -- ER doesn't reference special -- the recent special tritium compound document. NIOSH will -- committed to reference OTIB-66 in the next revision of the TBD.

Four, we discussed the remedy that we thought that there was inadequate number of monitoring records, only three to 10 claimants per year from 1988 to 1990. And NIOSH said that they have a more complete data set, much more complete data set, they use for actual dose reconstruction. And in their presentation at the work group meeting, they had a table summarizing what sort of information they have. A lot has to do with the coexposure model. As I said before, NIOSH doesn't believe it's necessary to have a coexposure model. They're going to update -- when they revise the internal dosimetry TBD, they'll provide the guidance of what to do for tritium exposures for unmonitored personnel.

Observation six, NIOSH contour -- concurred with it. Seven and eight

and nine, NIOSH concurred also. These are Tiger Team report observations. Ten, this is a management issue, not a real radiological issue. The -- observation 11, the transition year of 1990 after the Tiger Team assessment -- assessment led to overall reduced exposures. And we looked into this in some detail, and we agree with it as the observation, and NIOSH agrees -- concurs also that there was a definite improvement. And it reduced the exposures.

Twelve, the ER is generally consistent with interview records. NIOSH concurs. Thirteen, that Pinellas Plant is diligent in following up with contamination-related issues. And NIOSH agrees and mentions that the contamination-related incidents were one-off type incidents. They were corrected.

And finally, getting near the end here, I have on the slide potential path forward as tasked by the work group. Well, at the work group meeting we had, like, three weeks ago, they did -- the work with the task SC&A. And there's three main areas: to evaluate all new data from data collection activities made available after this report was produced. There is a bunch of data collection activities, lots and lots of documents that we didn't have the opportunity to review yet. Because when we were doing the interim report, at some point, you have to say okay, enough; we're gonna go ahead and write a report, recognizing that this is a working document. So, we're gonna look at that, respond to any new reports, presentations. etc.

So, that includes really two things. The petitioner representative submittals, there's been a bunch done since our report, and we've -- we've taken a quick look at them, but we haven't formally reviewed them. And

we're going to, and the Board tasked us to do that. Eventually, to revise at some point -- we'll call a halt and revise our ER with all the information we have. The -- it was stressed at the -- also at the work group meeting, in addition to evaluating this, that issues -- any issues that exist can be reopened if it's warranted by new data. So, we're going to keep going on this. And one thing that we are start -- that we started working on already, that we -- requested by the Board to develop issues matrix to facilitate tracking the issues. That's commonly done on all the different sites that we work on.

And I've run out of steam, and I'd be happy to take any questions.

CHAIR ANDERSON: Brad, do you have any additions, or?

DR. OSTROW: Excuse me?

CHAIR ANDERSON: I'm just saying if Brad or the other committee members, if they have any questions or -- it's quite a thorough review of what's transpired and where we're -- where we're at.

MEMBER CLAWSON: Right. I -- Andy, this is Brad. I just wanted to bring forth since this port -- report was put out, we've got a significant dump of information from Dr. DeGarmo on a lot of different issues in there, a lot of them pertaining to the plutonium issue, the heather projects, some other things that we're trying to find out. We, as a work group, I'm -- I'm looking to be able to go back down and do some more worker interviews and be able to get to the bottom of some of these issues that we have evaluated.

But what Steve said was true. We have to stop. We have to make a point in time and deal with the information we have at that time and then move forward. But since that time, there has been an awful lot of

information that has come in, and I know that Steve and Bob Barton have been getting this information, and we're gonna be evaluating that. But I want to be able to bring this before the Board so that they could -- if they had any questions that -- at this time, that we can go forward and make sure that we have those questions in -- in mind as we go forward.

MEMBER ZIEMER: And Brad, this is Paul. I have a couple of questions. First of all, I'm -- all of this new information that's coming in, and I understand the work group's already been -- has tasked SC&A to look at that -- what's NIOSH doing on all this new information? Are they doing a parallel or -- or maybe someone from NIOSH would answer? Are they doing a parallel review of that? Did they begin --

MR. NELSON: This is Chuck --

MEMBER ZIEMER: (Indiscernible) --

MR. NELSON: -- Nelson from NIOSH. We're -- also is this information rolls in, we are evaluating it as well. So, we have documented a lot of this, and we can provide it when we're complete with it. But yeah, as it rolls in, we are certainly evaluating it.

MEMBER ZIEMER: Thank you. My second question has to do -- and -- and I think, maybe Steve, you can answer to this. But you mentioned other soluble tritium compounds and aside from tritiated water or tritiated -- tritium dioxide, are there other soluble tritium compounds on site, or is this only the organically bound tritium in the urine bioassay.

DR. OSTROW: Well, the -- we haven't found, and I don't think NIOSH has found, any others. But this was a question were -- were there any others, you know, so this is more something we were looking to see. We

haven't found any, and I don't think NIOSH has indicated either that they found any.

MEMBER ZIEMER: So, when you refer to other soluble tritium compounds, it did mention something about the organically bound tritium. Was that in the urine --

DR. OSTROW: Yes.

MEMBER ZIEMER: -- bioassay samples, --

DR. OSTROW: Yes.

MEMBER ZIEMER: -- which --

DR. OSTROW: That's picked up by the bioassay samples.

MEMBER ZIEMER: Yeah. But it's hard to think of that as a source of worker exposure. Perhaps only to a few bioassay people who are pipetting small amounts of urine into a scintillation counter, something like that, but certainly that assorts to most workers.

DR. OSTROW: Agreed. Agreed. I think NIOSH, as part of their normal operating procedures, looks at that, and they -- they see if it's significant or not.

MEMBER ZIEMER: Okay. Thank you.

DR. OSTROW: You're welcome.

MEMBER POMPA: Steve, this is David Pompa. I have a -- I have a question. How often after an incident was a bioassay taken?

DR. OSTROW: As far as we saw, the -- well, as far as we saw, the records, like the employee interviews, they claimed that after there was an incident, it was bioassays taken. And looking at the procedures prestigious at Pinellas, the health physics procedures, they were supposed to have been

taken. It's a little bit difficult to find out the actual rate of compliance though, because that was one of the things that the Tiger Team complained about, that they had -- Pinellas had great procedures, but they didn't always follow them. We did take a look at our -- in the appendix -- at different incidents that occurred and couldn't really make a conclusion to what extent follow ups is done. Have anecdotal information that they will take, that they did have a follow up, but unless --

MS. COOK: Yeah.

DR. OSTROW: -- the actual employee records, we can't really tell that.

MS. COOK: This is Madeline Cook with DCAS. I'd also like to add that the noncompliance issue was with employees who were scheduled to have weekly or monthly sampling frequencies, and there were no issues with employees who were asked to submit samples on an incident basis.

MEMBER POMPA: Okay, thank you.

CHAIR ANDERSON: Questions or comments? Okay. I want to thank Brad and Steve for putting this together and getting us up to speed, and we'll look forward to getting the new documents coming in reviewed and see if they make any impact on their findings to date.

MEMBER CLAWSON: Right. And part of the thing that the work group is doing is, we want to set up a -- another worker interviews down there. We'll be asking Dr. DeGarmo to be able to help with some of that, be able to set us up to be able to interview with some of these people. Part of the problem with this site is -- is it was completely gone by the time we kind of got into it. So, we were able to look at the other end it at the Sandia, which

a lot of the processes had changed and so forth. But with this new information coming in, I think that we need to take the time to be able to look at this fully and evaluate this in a little bit better manner. So, I appreciate that, and if there's got any other comments, I'm good.

DR. OSTROW: This is Steve again. I just forgot -- damn. My phone's ringing. At the very beginning of the meeting, I just wanted to do a shout out to Bob Barton, Nicole Briggs (ph), Ron Buchanan, and Rose Gogliotti, who did a lot of the work. I certainly didn't do it all myself.

CHAIR ANDERSON: Okay. Thank you. And with that, we're now reaching our break period. Any other questions or comments people have on what we have gone through so far today?

So, Rashaun, we want to come back at 1:40 Eastern?

DR. ROBERTS: Yes.

CHAIR ANDERSON: A little over an hour?

DR. ROBERTS: Yes.

CHAIR ANDERSON: For some it's lunch, for others it's breakfast.

DR. ROBERTS: Yeah. It's actually a little less than an hour, but yes, we can break now.

(Whereupon, a break was taken from 12:53 p.m. EST until 1:41 p.m. EST.)

DR. ROBERTS: I'm a little late. I'll do a quick roll call. I'll start with Anderson.

CHAIR ANDERSON: Present.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: Clawson?

MEMBER CLAWSON: Here.

DR. ROBERTS: Frank?

MEMBER FRANK: Here.

DR. ROBERTS: Kotelchuck? Dave, are you on? Kotelchuck?

DR. ROBERTS: Lockey?

MEMBER LOCKEY: Here.

DR. ROBERTS: Martinez? Pompa?

MEMBER POMPA: Yes, ma'am.

DR. ROBERTS: Roessler?

MEMBER ROESSLER: Here.

DR. ROBERTS: Valerio?

MEMBER VALERIO: I'm here.

DR. ROBERTS: And Ziemer?

MEMBER ZIEMER: Here.

DR. ROBERTS: Okay. Let me ask again for Kotelchuck? Okay. I don't hear him. Martinez? I think we do have a quorum, so Andy if you want to start, you can.

CHAIR ANDERSON: Okay. So, next up is the subcommittee report on procedures review activities. Josie and Kathleen Behling is going to give us an update and a nice historic perspective as well, so take it away, Kathy.

MEMBER BEACH: Thanks, Henry. Kathy, are you on mute?

CHAIR ANDERSON: We can see your slide.

MEMBER BEACH: I'll just tell you while Kathy is coming on, we decided as the subcommittee to go ahead and give a review of what's been

happening in the subcommittee for the last several years instead of going through and closing out more documents. We'll get back to that at the next meeting. But we wanted to give the board an opportunity to see all the work in the background and a chance to ask any questions on what Kathy's presenting today.

And Kathy, are you on?

MS. BEHLING: (Indiscernible) hear me?

MEMBER BEACH: No, but just barely. Is any (indiscernible) --

MS. BEHLING: (Indiscernible) again.

MEMBER BEACH: Yeah, you're -- you kind of sound like you're in the background talking. How about others?

MS. BEHLING: (Indiscernible) better?

MEMBER BEACH: No, (indiscernible). That seems better, yeah.

MS. BEHLING: Okay. A little bit. Would you prefer that I call in if you can't hear?

MEMBER CLAWSON: Yeah, you might try that. How about others? I -- it's still pretty faint for me, Kathy.

CHAIR ANDERSON: Yes, it --

(Whereupon, multiple members speak simultaneously.)

DR. TAULBEE: It sounds like you're coming in through the computer microphone.

MS. BEHLING: Okay.

MEMBER BEACH: I'm not sure -- that's actually (indiscernible).

MS. BEHLING: I'm not sure how to correct that. Is everybody okay? Can you hear me, or do you want me to call in?

MEMBER BEACH: No, I think you're fine now, if it stays like that, if not, I'll break in and let you know.

MS. BEHLING: (Indiscernible) --

DR. ROBERTS: Excuse me, it's not clear enough for the court reporter.

MS. BEHLING: Okay. (Indiscernible) call in. Hold on just one second. I apologize.

MEMBER KOTELCHUCK: By the way, while she's -- while she's doing that, I just got in. I was a few moments late. I think I missed the roll call.

DR. ROBERTS: Okay. Thanks, Dave. Is Nicole on?

CHAIR ANDERSON: I think she said for a period she was going to be off.

DR. ROBERTS: Yeah, that's right.

MS. BEHLING: Okay. Let me try this again (indiscernible) apologize (indiscernible) this. Can you hear me now?

MEMBER BEACH: You you're echoing a bit, but your slides are back up. I don't know if you need to turn your computer volume off or down. No, you're talking but we can't hear you at all. Nope. No, Kathy, you're muted and if you called in, we can't hear you. All right. Let's see how that --

MS. BEHLING: All right. How about now?

CHAIR ANDERSON: That sounds better.

MS. BEHLING: Can you hear me at all?

MEMBER BEACH: Yes, you're still --

MS. BEHLING: (Indiscernible) --

MEMBER BEACH: -- echoey though.

MS. BEHLING: Okay. I'm afraid this is the only thing I know to do, unless someone has something that I (indiscernible) can recommend.

MEMBER BEACH: Rashaun, can we try to get started and see how it goes?

MS. BEHLING: Yes. I'm gonna have slides that we (indiscernible) read from if that's gonna help.

DR. ROBERTS: Okay. Let me ask if the court reporter can hear.

THE COURT REPORTER: It's gonna be very difficult to get a verbatim transcript with that audio.

DR. ROBERTS: Thank you.

MS. BEHLING: Okay. (Indiscernible) --

CHAIR ANDERSON: Do we want to -- do we want to move on and have Chuck present and you try to work it out, or?

MS. BEHLING: I can try. I'm not sure if anybody has any recommendation as to what I can do, but (indiscernible)

CHAIR ANDERSON: (Indiscernible) --

MS. BEHLING: -- you do? What about the court reporter?

MS. ADAMS: Kathy, this is Nancy Adams. You just might want to get out all together and come back in. Sometimes it's just a connection issue.

(Whereupon, multiple participants speak simultaneously.)

MS. BEHLING: And I do apologize. If you prefer to move on and then I'll come back in in fact, maybe I'll pull it up on a different computer.

MR. NELSON: Yes, Doctor, this is Chuck Nelson. I'm ready to proceed with the SEC update, if you want to do that.

MEMBER BEACH: I have a suggestion. Kathy, can -- are you a -- able

to call in on a on a different phone and then somebody else put your slides up, or?

MS. BEHLING: Yeah, (indiscernible) do that. Let me switch to a different computer and see if --

MEMBER BEACH: Okay. Thanks.

MS. BEHLING: Thank you, and I'm sorry about this.

CHAIR ANDERSON: Should we go on to Chuck?

SEC PETITION STATUS UPDATE

MR. NELSON: Yes, I'm pulling up my presentation right now. Let me know if you can see it here.

CHAIR ANDERSON: This is the SEC petition status update. There we go.

MR. NELSON: Okay. Can everybody hear me okay?

CHAIR ANDERSON: You sound good.

MR. NELSON: Okay. All right. Well, I will be doing the SEC update today. As you know, we do that every SE -- at every Advisory Board meeting. I'm the DCAS SEC team lead. We do it at every meeting with the purpose of updating the petitioners, the general public, and the Advisory Board on where we are with the SEC petitions.

And this update should help let you know how many SEC petitions we have in qualification, and for those qualifying, how many are under evaluation by DCAS, and how many petitions are currently with the Advisory Board for review. And finally, if we have any potential NIOSH-initiated SEC petitions, then we'll discuss those.

Okay. So, I have some numbers for you here. Let me get it lined up here. Okay. So, to date, we have 263 petitions received. We have two in the qualification review process. We've talked about these two some in the past meetings. One of them is SEC-261, which is -- you may remember that's related to a B-52 plane crash that occurred in 1968 and some associated cleanup efforts near Thule Air Force Base in Greenland. That one's on hold. It's currently being evaluated to determine if it's a covered facility or activity, so that is on hold. The other one is SEC petition 263, and that one's for Weldon Spring plant. And it's during the remediation period, and it's also under review. And right now, we're working with the petitioner to help resolve some deficiencies in the submittal that was provided to us.

Thus far, we have received 153 SEC petitions that qualified for further review. And as you know, those result in evaluation reports, and we send us to the Advisory Board for review. So, there are no new SEC petitions that are qualified. We're evaluating -- evaluations that are currently in process. All the 153 SEC submissions that did qualify, we have performed evaluation reports and provided those to the Advisory Board for review. As of now, there are two evaluations with Advisory Board that are undergoing review and evaluation. And to date we have 108 petitions that we did not qualify for further evaluation.

Okay. First up to talk about is Lawrence Livermore National Lab. That's for the period of 1990 to 1995. And this is an addendum to address the remaining years. Currently, we're working with Lawrence Livermore at the site in order to have a site visit there and likely perform an interview or -- one or more. And I know -- Brad, I know you were interested in going on

that trip, so as soon as we get something set up with the site, we'll let you know about that.

Okay. Then we have Hanford, that's SEC-57. Now, all the SEC issues are closed, except those related to the ongoing effort for internal coexposure, and as currently underway. It's quite a big effort.

Next, we have Savannah River Site, SEC-103. NIOSH is responding to findings and observations raised by SC&A in the workgroup. And we're waiting to see the results of SC&A's assessment of the TRAC database. There's no acronym stands -- that stands for nothing, I found out. I was trying to define the acronym, and we couldn't find any related acronym. So, it's called the TRAC database.

Okay. Next up is Lawrence Livermore (sic) National Lab, that's SEC-109. And again, we're responding to findings and observations. We have provided the following documents to the work group for review: That's LANL weight of the evidence memo that was sent on August 28, '23. We also sent over revision report 101, and it was sent to the work group on 9/26/93 (sic). And there's also report 107, that's rev. zero, and that's it estimation for intakes of exotic radionuclides at the Los Alamos Neutron Science Center. That's from 1996 to 2005. And that again was sent over to the work group on 10/2/23. So, we're waiting for any responses for those. Also, we have a report 102 and 103 over for review.

Next up we'll talk about Idaho National Lab. That's SEC-219. Again, we're responding to findings and observations raised by SC&A in the work group. We've been working with a site to obtain some access to some electronic records. And we were actually -- from December of 2022, and we

had some pretty good luck with that recently and were able to do some electronic transfer of those records. So, that was a success. We returned to INL the week of 8/27/23 to scan some documents from a June 23 data capture. And currently waiting for release of documents from an I -- INL classification review from June of 2023 data capture and of an August 2023 document scanning trip.

Currently we're working on report 100 and that review's the remainder of the high-priority reactors with respect to the application of OTIB-54 for dose reconstructions.

We have Argonne National Lab. Again, we're responding to findings and observations raised by SC&A in a work group. We have sent Report 89, which is evaluation of issues in the use of general area air sampling at Argonne National Lab West for internal dose assessment. That was sent over June 8th of '22.

Then we have Area IV Santa Susana Field Laboratory, that's SEC-235. We're working on providing clarification on remaining issues, and we're still working with the records center at EMCBC. They've been digitizing records and providing those of us electronically. That -- a numerous amount of records, and we're going to go through each of those as we look to resolve any remaining work group issues. As we get those, we are uploading them to our sites research database, so hopefully we'll get access to that before long according to Grady.

Next up, we have Metals and Controls as SEC-236. Again, that's with the Metals and Controls work group. And there's going to be an update later this afternoon by Josie Beach.

We have SEC-246, that's DeSoto Avenue facility. And same as SSFL in that we're working with the records center to get the electronic documents sent over to -- to us from them.

Finally, we have Y-12 SEC-250. And that's an addendum to the ER. It was presented at the August '21 Advisory Board meeting, and it was -- SC&A was tasked with review of that evaluation report.

And earlier, we talked about SEC-256, Pinellas. And we did our presentations and -- at an Advisory Board -- well, at a work group meeting on 11/20/23. And of course, we did that. Steve did the NIOSH update earlier today, and Brad, on Pinellas work group.

This slide here is -- just shows the sites, the SEC number, and the dates of the periods awaiting action. So, we have Hanford, it's '84 to 1990 for prime contractors; Savannah River, 1972 to 2007 for prime contractors. We also had the Savannah River Site during the '91 to 2007 for subcontractors. We have Los Alamos National Lab, 1996 to 2005; Idaho National Lab 1949 to 1970. We have Argonne National Lab West, which is SEC-224. It's 1958 to 1979. We have Area IV Santa Susana from 1991 to 1993. Metals and Controls, it's from 1968 to 1997. That's the residual period. DeSoto Avenue facility is 1965 to 1995. We have Y-12, SEC-250 is 1979 to 1994. And finally, Pinellas Plant, which is SEC-256 from '57 to 1990.

Potential SEC petition, we have West Valley Demonstration Product -- Project. There was an SEC issued after 1969, so we're looking at a pretty good amount of data for the time period of 1966 through 1968 to see if there's any other potential feasibility. So, that's in our house for work.

And with that, I will take any questions that anybody might have.

CHAIR ANDERSON: Thanks a lot, Chuck. Any questions? Comments?

MEMBER CLAWSON: Chuck, could you -- could you kind of let me know what's going on -- on Hanford? I got an email from you and said that you were doing some data capture, but --

MR. NELSON: Well, right now --

MEMBER CLAWSON: -- at?

MR. NELSON: Well, we did the -- the monitoring completion portion of the coexposure study. ORAUT is done with it, and they're providing it to us. They provided us an early version of the monitor completeness portion. Those are the two big chunks of the coexposure model. And we had some issues with it. So, we're going back and forth with them. We're going to have a big meeting to get on the same page. And, I mean, the goal here is to provide you with a good, quality product the first time. So, you know, as you know, coexposure studies take a lot of time, and it's a lot of effort. And Hanford, you know, the focus for us is '84 to 2001. That's the most important part. The other stuff, you know, there's already SECs for it. So, there's a lot of contractors involved in that time period. So, you know, you had P&L who was implementing that internal -- well, they were respond -- they were -- they had internal the dosimetry program. You had all these contractors that fell within it. So, we have to look at each of those contractors and see if they implemented what they said they were going to implement. And so, we want to get to that level of detail so that we can give you the right product in the end and not a partial product. So, we're having a lot of back and forth with ORAUT with that right now, to be honest.

MEMBER CLAWSON: Okay. Thank you for the update.

CHAIR ANDERSON: Okay. Kathy, did we get it figured out? I see a smile, so that's a good sign.

SUBCOMMITTEE ON PROCEDURES REVIEW ACTIVITIES

MS. BEHLING: I don't know. Can you hear me?

CHAIR ANDERSON: Yes.

MEMBER BEACH: Yes. Yes.

CHAIR ANDERSON: (Indiscernible) hear --

MEMBER BEACH: Much clearer.

MS. BEHLING: What a way to start, huh? Okay. Let me share my screen here. We can do that. Okay. And are you seeing that?

CHAIR ANDERSON: Yes.

MS. BEHLING: Great. All right. As Josie mentioned, rather than me going through a lot of technical procedures that had been reviewed by the procedures subcommittee, we're going to talk about their accomplishments over the last many years. So, this first slide, it gives you a perspective of just the variety of technical guidance documents that the subcommittee on procedures review is responsible for. The reviews include technical information bulletins, implementation guidelines, reports, procedures, and program evaluation reports. And both DCAS and ORAUT issue TIBs and reports and procedures and DCAS also issues implementation guidelines and PERs.

So, I've listed the current number of active documents under each of these document types. And just to clarify, when I mentioned -- what I list

currently active, that means that the documents are currently being used to perform those dose constructions or administer the program. And I -- I just will make note that I tallied up these numbers by going into the virtual volume and going under the control document list. And I just took notice that under the reports, although there were 61 documents listed, if anyone goes there, there are actually 12 of those early reports that when you open them up, they're not really reports. They were slide presentations. So, I wanted to make mention of that.

The only other technical documents that are primarily used in this program are site-specific technical basis documents, TBDs. The TBDs are typically reviewed under site-specific work groups; however, I will mention that the procedure subcommittee has reviewed some site TBDs when perhaps a work group has not been established. And in addition, under the PER reviews were all -- which are often issued because of TBD revisions, our subtask two review includes an evaluation of any changes that were not previously review -- reviewed.

Okay. And to give you just a time line, SC&A began reviewing these technical documents back in 2005. And at the beginning of the program, we were tasked with reviewing a set of procedures like dose reconstruction subcommittee does. Set one included 37 documents. And then in 2007, we submitted set two, which included 30 documents. And in set three, we reviewed 45 documents. And thereafter, we issued individual procedure documents -- document reviews, and they were submitted to the subcommittee as individual reports.

Now, starting in March of 2013, the subcommittee began presenting

an overview of specific document reviews to the Board. Then in April of 2021, we began sharing the reviews and issues resolution process by presenting the information using a matrix-style approach, which you hear me do quite often. Nope, I went too far.

Okay. So, I wanted to get a little more specific with the subcommittee's reviews. And so, I've collated some details about each of the types of technical document. First, we'll look at the TIBs. And for the DCAS Battelle TIBs, there are a total of 15. Now, I just want to point out that these totals that are you're going to see on this slide and -- and several of the next slides, they're not going to match the currently active document -- number of documents that I showed on slide two. That's because this subcommittee has review documents that have since been cancelled. So, for the DCAS Battelle, there are 15 TIBs -- yeah, TIBs, and the subcommittee has reviewed 10 or 67 percent. Five have not been reviewed, four have been approved by the subcommittee, one has been cancelled, and none of these reviews have been presented to the Board yet.

Now, for the ORAUT TIBs, there are -- 60 of the 64 have been reviewed, and that represents 94 percent. Twenty of the reviewed OTIBs have been cancelled, and 10 TIBs reviewed under the -- or and 10 TIBs have been actually reviewed under site-specific work groups. Thirty-two have been approved, and 14 have already been presented to the Board.

Okay. Implementation guidelines under the purview of the subcommittee, there are five total IGs. Sixty percent have been reviewed, and two of the three reviewed IGs have been approved by the subcommittee, one has been presented to the Board. The one that's not on

this list, I'll just make mention of, that review was included under, I believe, a combined Savannah River Site SEC work group, and this was IG-006, which is the evaluation of coexposure data sets.

Okay, PERs. Now, a PER is a document that's issued due to revisions to -- that -- to some technical basis document or some guidance document that has the potential to increase dose. So, PERs do not get cancelled, and they are not revised. So, there are currently 90 PERs. The previous subcommittee chair determined that 14 of the PERs did not really warrant a review. However, at our last subcommittee meeting, Josie did ask that we, perhaps, you know, look at that, again. She wants an understanding of which PERs they are and why they were listed as not necessary to review, so we will likely revisit those at the next procedures subcommittee meeting.

So, the subcommittee has reviewed 63 percent of the current total requiring a review. Thirty-three of the 48 have been approved by the subcommittee, and 23 of those approved reviews have been presented to the Board.

Okay. For reports, the subcommittee has reviewed and approved 36 percent of the 11 total DCAS reports. It should be noted that most of the unreviewed reports are administrative in nature rather than technical, so we tried to pick the more technical ones to start with. Three of those reports have been canceled, and one has already been presented to the Board. For the ORAUT reports, there are currently 22 reports under the purview of the procedures subcommittee. Twenty-nine were reviewed under site-specific work groups, and 13, or 59 percent, of the 22 reports have been reviewed by the subcommittee of which two have been approved. One report has

since been cancelled, and one of those reports has been presented to the full Board.

Okay. And finally, procedures. There are 11 DCAS procedures on the procedures of -- procedure subcommittee list for review. Thirty-six have been reviewed -- 36 percent has -- have been reviewed, and the remaining seven are, again, mostly administrative documents. All four reviewed procedures have been approved, three of the four have been cancelled, and one of those procedures has been presented to the Board. There are 38 ORAUT procedures under the subcommittee's review list. Sixty-six percent have been reviewed and 21 of the 25 procedures have been approved by the subcommittee. Twelve of those review procedures have been cancelled, and seven have been -- been presented to the Board.

And so, if you've been counting, there are currently 256 total documents under the review of the procedure subcommittee. And in preparing for this presentation -- I repeat, I apologize -- but I realized I should have added an additional slide here for tallying up those totals and presenting this information and which I didn't, so. And so, but of those 260 -- 256 total documents, the subcommittee has reviewed 65 percent of the total documents. Forty-six percent of those have been -- of the reviewed documents have been approved by the subcommittee, and we have presented 40 document reviews, I believe, to the Board. And when you subtract out the number of canceled documents, which will not be presented to the Board, we -- that -- that represents the number that -- that we have already presented, about 28 percent. So, more to come.

All right. Okay. Now we're going to move on to some new type of

document reviews that the subcommittee is undertaking. And I first want to just thank Tim Taulbee for allowing me to use some of his words in these slides from the presentation that he made to the subcommittee on these document -- DR methodologies that I'll be discussing here.

So, to give you some background, TBDs, in the beginning of the program, were initially, obviously, developed for the large DOE sites that had many claims. And then to balance the claim processing, Battelle developed TBDs for the smaller AWE sites, primarily uranium metals facilities. And these TBDs have generally been reviewed by site-specific or AWE-specific work groups. Now, for the smaller DOE and AWE sites, NIOSH has been using, something we call, DR guidance and a DR template instead of using the TBDs. This guidance and templates have not been reviewed by the Board. There's been maybe one done under the subcommittee, but this guidance has been developed using two site-specific documents, and namely that's a DR methodology document and a DR template. So, the subcommittee has just begun reviewing these documents using similar a review process but made somewhat less intense than the larger DOE sites.

To start with the DR methodology guidance document is not formally published, and it is not posted on the NIOSH website. Initially, this document was used to process a small number of claims from a particular site. And it contains information that's similar to a TBD and the guidance, and it includes items such as the facility description, external and internal dose assessments, occupational medical assessments, and environmental dose assessments.

Okay. The second document is what we call a DR template. And

again, this document is not published or available on the NIOSH website. The template is actually a dose reconstruction report with color coded text to indicate the information that the dose reconstructor should include, and it also provides direction to the dose reconstructor. The report is generated specifically for claims being evaluated, and it uses as much site-specific data that are available and provides an explanation of how the energy employees radiation doses were reconstructed.

Okay. So, how many sites fall under this reconstruction process? Well, there are currently 25 sites where this dose reconstruction guidance document, slash, template is being -- are being used. Thirteen of the sites are AWE sites and 12 are small DOE sites. NIOSH has also noted that there are nine sites that have not been included under this reconstruction process because there's just a lack of data. There was not enough data available for them. And because of the cyber security initiative, NIOSH only has a total number of cases associated with these 25 sites as of December 2019, and that includes 2508 cases. Now, there are seven sites that have between 119 and 476 claims, and while the remaining 18 sites have claims that range from as little as two claims to 85. Now, NIOSH has decided for four of these 25 sites with the largest number of claims, they will be developing a site-specific TBD.

SC&A in preparation to do these reviews has created a review template for consistency in our evaluation process. And our review consists of evaluating the cleat -- completeness of the data now that we have some access to this -- the SRDB. We also reviewed consistency between the DR guidance and the data sources, the technical accuracy of the guidance, and

the scientific basis and adequacy of data. In addition, we make a comparison between the dose reconstruction guidance document and the DR template to ensure they're consistent. And we are also, as part of this review process, planning on reviewing about four to five cases where the dose reconstruction used this DR methodology template approach.

Now, in addition, we are considering venturing into a collaborative effort between the procedures subcommittee and the dose reconstruction review methods work group. Recently, Dr. Kotelchuck met with Rose and me regarding planning a dose reconstruction review methods meeting. And it occurred to me that since the work groups' focus is to assess the consistency of -- one of their focuses is to assess the consistency of professional judgments, and one of the previous recommendations that came out of that work group was to include assessing small AWE sites that had no TBD. And so, it prompted me to suggest that perhaps our review under the sub -- procedures subcommittee, we could include in our report of these four to five cases, a professional judgment section and that data. Hopefully, we could make a comparison between those cases and look for consistency and professional judgment, and that data could ultimately be shared with the DRR methods work group.

And it just so happens that Josie is also a member of that work group. So, I'm -- I'm not sure if this effort will be fruitful, but it seems like since the subcommittee is in the beginning stages of this -- these reviews, I thought it might be worth exploring. Both Dr. Kotelchuck and the members of the procedure subcommittee are in favor of this approach. However, I think Josie will want to hear from the other Board Members at the end of this

presentation.

Okay. So lastly, how is the subcommittee tracking their progress without access to the BRS? Well, we -- we developed a temporary BRS, which consists of maintaining two tables to track document reviews. The first is a temporary BRS tracking summary, which shows the sub -- the subcommittee just an overview of the findings and their -- the finding status. And the second is a more detailed tracking matrix, which provides details of the resolution process.

So, the temporary BRS tracking matrix summary is actually a table that includes a number of findings along with the status of each of the observations and findings. The status is -- the status includes whether the finding is open, in progress, in abeyance, transferred, or closed by the subcommittee, and we also have a column for any Advisory Board action after the document is presented to the full Board. This -- this summary is similar to report generation function that was available to us when we had access to the BRS. And in fact, you'll see the last one that we had access to in your Board coordination report.

So, the details, as I said, are maintained in the temporary BRS tracking matrix. And they include the number and date of the finding and observation, a description, any SC&A follow up, NIOSH response and follow up, any S -- yeah, procedures subcommittee actions and resolution, and the finding and observation status, and ultimately, the Board action and resolution. And the subcommittee believes that when we get the BRS access -- when the BRS access is restored, which hopefully is going to happen soon, this will allow us to relatively easily repopulate that database.

That's it for me. And I'm so glad you could hear me.

MEMBER KOTELCHUCK: Yes.

MEMBER BEACH: Kathy, this is Josie. I'm sorry, Dave, I'll give you the floor. I just wanted to thank you on behalf of the subcommittee. We couldn't do this without you. And it's very much appreciated, your reporting. Thank you.

MS. BEHLING: Thank you.

MEMBER BEACH: And Dave, were you?

MEMBER KOTELCHUCK: No, I wasn't, other than to say that I'm really happy that we're collecting additional professional judgment information. It's not clear to me how -- as Kathy said, how much -- how many things we will find that will be useful, but with -- since we're already doing these reviews anyway, or she is, and this is wonderful to see what we can find from that. So, I'm delighted to cooperate on that. Sorry.

MEMBER BEACH: We -- since it was your idea, we are happy to cooperate as well. Other -- other board members, thoughts on that? Plus, pros or cons?

CHAIR ANDERSON: Okay. I don't see any hands.

MEMBER KOTELCHUCK: No, we're not -- we're not doing any -- any additional tasking. Basically, it's tasking that's already going on and looking at one -- putting one additional aspect in it. So, you know, I think it's -- it's an easy -- a relatively easy change to adopt and to see where it takes us.

CHAIR BEACH: Yep, I agree, Dave.

CHAIR ANDERSON: (Indiscernible) --

MEMBER BEACH: (Indiscernible) --

CHAIR ANDERSON: I had a question. I mean, you're -- you're mostly working with documents that have been developed that are being used in the past. Are -- are there -- do you have any sense of how many new documents are coming online?

MS. BEHLING: I'm not sure.

MEMBER BEACH: That would be a Tim question I would think --

CHAIR ANDERSON: Or NIOSH.

DR. TAULBEE: I will say that things have slowed down some, but we are continuously revising documents, reviewing documents. And so, it is I -- I don't have a great feel for that. I would say on order probably three or four per month type of scenario.

CHAIR ANDERSON: Okay. Yeah. I was just hoping we're getting to catch up, not getting further behind.

DR. TAULBEE: We have caught up. I mean, the subcommittee has been very active over the past couple of years here. And so, I feel like they have made great head -- a lot of headway from that standpoint. I don't feel like you're falling behind from that standpoint at all. So, yeah, I think -- I think things are progressing very well.

CHAIR ANDERSON: Okay. Thank you. That's -- that's what my sense was, but I really didn't know. A good review. It's helpful to see the extent of the progress being made. Other comments or questions?

MEMBER ZIEMER: Well, this -- this is Ziemer. Right, but it's almost like this has left us all speechless, but I'm not -- I'm on the subcommittee -- the procedures review subcommittee, and I think our subcommittee certainly all supports it. And I think, Dave, your subcommittee does as well.

We were hoping to hear from those for whom this is, maybe, a new idea. I -- I know a good fraction of our Board is on one or the other subcommittee, so maybe everybody feels like they've had input already.

MEMBER KOTELCHUCK: Right. And Paul, you're on both of those subcommittees.

MEMBER ZIEMER: Yeah.

MEMBER KOTELCHUCK: Or working -- one subcommittee, one working group.

MEMBER ZIEMER: Right.

MEMBER MARTINEZ: This is Nicole. I'm happy with this approach.

MEMBER BEACH: Great. Thanks, Nicole. Anybody else before we wrap up? Okay. Thanks again, Kathy. We appreciate your updates. And we'll get back to reviewing documents for the next meeting.

MS. BEHLING: Very good. Thank you. I apologize again for the audio issue.

MEMBER BEACH: Don't even worry about it. It happens. And you fixed it and thank you.

Rashaun, do we need to wait the 10 minutes to start on the next one, the M&C update?

DR. ROBERTS: No, I think it can just go.

METALS AND CONTROLS WORK GROUP UPDATE

MEMBER BEACH: Okay. I'm going to try to share my screen. See -- this was my first attempt. And oh, it was right there. Now... It...

Give me one second. Hopefully that's not sharing. For heaven's

sakes.

Okay. Bob, if you're online, would you mind sharing? I thought I had it figured out, but now when I went back, it's not there.

MR. BARTON: Sure thing, Josie.

MEMBER BEACH: The document -- thank you so much.

MR. BARTON: Okay. How we looking?

MEMBER BEACH: Looks good. It's there.

MR. BARTON: All right.

MEMBER BEACH: And thank you so much. I appreciate it.

I'll go ahead and start. We met yesterday and -- and that was a challenge. And I don't know that I would schedule a work group meeting the day before a Board meeting. That's an awful lot of documents to get through in a -- in a week prior. So, the -- I wanted to let you know, Loretta Valerio, Dave Kotelchuck, Henry Anderson, Nicole Martinez, and myself are on this work group meeting -- or on the work group.

I'm going to go ahead and skip, or have Bob skip, to the -- the slide presentation number 12. We -- I gave this, most of you will remember, last August, and the work group did meet yesterday, as I just said, and we voted to refer M&C as an SEC question to the full Board. That was a unanimous decision with one -- one abstention. So, I'm sure there'll be more questions on that. I'm not expecting a vote today. So, rest assured this will come before the Board in April. So, you'll have time. I just wanted to give a brief update to let you know where we were today.

So, on slide 12, the work groups' concerns, back in August and still today, is the bounding approach plausible for inside subsurface work. The

pre D&D survey measurements in 1995 of the pipe sediment, we didn't feel reflected exposures during the entire residual period, which is 1968 to 1997. There's additional uncertainties identified bearing on source term and exposure information, contaminated scale, and the presence of coagulants in drain pipes. NIOSH's use of the extreme conservatism to account for M&C's in -- intrusive activities, high exposure conditions, and certain facility activities or unknown contamination sources resulted in high bounding values, but we questioned whether it was plausible.

And the use of surrogate air monitoring data from a Mound excavation project for M&C, Metals and Control (sic), dust loading does not account for the confined space effects. A majority of the work group concluded that for this one bounding value, the back-application of the pre D&D samples may not be sufficiently accurate, and NIOSH does disagree with that judgment.

So, next slide. Thank you.

Unresolved source term question, the scale we had talked about. Metals and Control drain -- drainage piping -- pipes -- excuse me -- contain radioactive sediments and scale. Pre D&D surveys in 1995 found sediments up to 53,000 picocuries per gram and scale measurement up to 1 million dpm per centimeter squared. DOE in its Bridgeport Brass hazards assessment identified potential of airborne releases when cutting pipes containing scale. M&C maintenance workers potentially exposed to both sediments and scale when cutting and cleaning out the clogged pipes. NIOSH's inside subsurface bounding model only addressed the sediments. Claims on the scale at this survey level were also -- was isolated hot spots, excuse me, not systematic in drainage systems at M&C. That was out of

NIOSH's last paper, as you see there. NIOSH has not provided evidence that similar or higher levels may not have existed elsewhere in the drainage system. NIOSH did provide survey sample -- sampling data for the scale at Metals and Control, but the work group found it inadequate to support bounding exposures. And again, most -- we'll get into more detail when we prepare for our April meeting.

Unresolved source-term question on coagulants. Coagulants is potentially a vegetable-based and/or mineral oils that they used in a drawing wire in building 10 at Metals and Control during the operations, and that was up to about 1981. It had properties of coagulants. Workers found it would frequently plug up the drains. It has a known physical chemical concentration affects. Frequent discharges of coagulants may have consolidated and concentrated drain pipe sediments, including existing AWE uranium and thorium and potentially evaluate -- elevated sediment concentrations in the early years of the residual period due to active -- the coagulants ditch -- discharge and not -- and it has not been addressed satisfactorily.

There's a lack of information regarding how this may impact source term during the early residual period when building 10 operations were active. And the work group believes uncertainties involved raise questions about bounding the value proposed.

All right, next slide.

You will remember this three-legged stool approach. It's been brought up a couple of different times since our August meeting. NIOSH has modeled intake for indoor subsurface work is a function of one radiological

source term; two, resuspension factor/dust loading; and occupancy time. Two of the legs remain -- remain lacking. And we felt it was the source term is uncertain, may be higher, and dust loading does not reflect confined space effects.

That's -- and then we talked -- I talked about the Linde precedent. Most of you will remember that, I think. For the Linde Ceramics NIOSH proposed bounding approach that back-applied a high D&D airborne activity from jackhammer -- hammering to renovation -- the renovation period. The Board disagreed because of the uncertainty concerning what activities actually took place during renovation and the impact such activities might have had on the resulting dose levels. Suggest that dose reconstruction methods may not account for all the exposure scenarios during building renovation. That was right from HHS 2011.

The Board also noted that D&D activities were conducted with rad controls whereas no rad control measures were adopted for renovation. Therefore, the Board was not convinced the radiological data from the decontamination efforts were sufficiently informative about exposures in the renovation period. The US Department of Health and Human Services concluded that it is not feasible to reconstruct radiation doses with sufficient accuracy for the renovation period.

Next slide.

NIOSH finds that it is more relevant -- more relevant source-term information -- information from M&C than it has -- for had for Linde. NIOSH notes that the maximum annual dose levels for Linde greater than 5 rem committed effective dose from the jack hammering were much higher than

those modeled for M&C. That put M&C at 71 millirems, and that was in the -- in the sediments.

So, two relevant remarks by the Board chair at the time. If the absolute value of the exposure is relatively low, then we're willing to accept more variability in the dose if it's being calculated for an individual. And then the second, we may have a bounding dose, but is it plausible bounding dose given how little information we have and the fact that most of these people probably weren't engaged in the activity that we have done the dose reconstruction for. In our meeting yesterday we -- we expanded quite a bit on some of these -- some of these remarks and more extensively, you'll -- you'll see that in some of the newer white papers.

Next slide.

Interpretations of the Linde lesson. So, SC&A felt the use of high exposure or concentration values based on these D&D data to bound or represent that other workers in a facility or on a site for long periods of time would not be appropriate if their exposure potential could be higher, conditions were different, or if there was a lack of information upon which to make the judgment. NIOSH does disagree. Notes that the M&C dose estimates are relatively low, and NIOSH has a more complete data set to characterize M&C and a better understanding of M&C maintenance work than we had with Linde.

And in summary, here are some of our concerns for the inside subsurface model, bounding model. The intrusive work activities by maintenance workers at M&C during the residual period led to potential exposures for which there are no available monitoring data. Second, NIOSH

applies the 1995 D&D survey data as a basis for an upper bound for residual period exposures. For radiological data from one time period to be considered informative about exposure during another time period, there should be sufficient similarity of conditions and processes between those two periods. Although NIOSH has proposed to claimant favorable inside subsurface bounding concentration, the six -- 6897 picocuries per gram, there remains uncertainty about source terms and exposure pathways during the residual period, which was 1968 through 1997.

There is insufficient information available to account for exposure can do -- contribution of confined spaces, pipe scale releases, and released coagulants in the workplace, not controlled as a radiation environment unlike that of the labor D&D era at M&C from which NIOSH draws its data. The application of the extreme conservatism in formulating the proposed upper bound concentration to account for intrusive activities, high exposure conditions, and certain facility activities or unknown contamination sources may not be a plausible approach to compensate for inadequate or insufficient information.

I assume we will need to pick up on M&C, of course, at the next Board meeting, which I mentioned earlier, and you will hear more details from both NIOSH and SC&A. So, look forward to that, our concerns will be a little more formalized. They're here, but on one page. And I believe that ending year, we are talking 1995, not 1997. So, those -- those are two things.

With that, that's all I have. If there's other work group members that wish to make a comment, please feel free to do so.

MEMBER KOTELCHUCK: No, we had long discussions yesterday, and

we're going to have a Board dis -- Dave Kotelchuck -- and have a lengthy discussion when we formally introduce it to the Board. This is really to provide Board members with information as to what's happening. It's an update. And we will also consider -- we will also try to develop a list of materials that folks can read that would be helpful in trying to -- for Board members to make a judgement on how we should handle this SEC proposal.

MEMBER BEACH: Okay, thanks, Dave.

MEMBER MARTINEZ: This is Nicole. I'll echo that. And one of the things we talked about was, indeed, that there would -- would probably lead to a lot of discussion at the full Board. But I thought, Josie, that you did a really good job of setting the scene.

MEMBER BEACH: Thank you. Henry, anything or Loretta?

CHAIR ANDERSON: No, we don't have anything to -- again, I think committee's gone over all the information available. And we still had disagreements between NIOSH's approach and our comfort with that approach, and I think that's what we really need to present. It really isn't any sense for the committee to try to continue to churn on this. We've done what we can, and the -- come to conclusions are not consistent between NIOSH and the subcommittee. And so, that now needs to -- final decision as to how to move forward on this has to come from the Board, and we'll lay that all out put together the documents we need to move forward, if that's the decision, or if the decision is to deny the SEC.

MEMBER BEACH: No, not to deny the SEC, to add an SEC.

CHAIR ANDERSON: No, but I mean if the decision to the Board --

MEMBER BEACH: Oh, I'm sorry.

CHAIR ANDERSON: -- there will be a different letter that would go to the secretary.

MEMBER BEACH: Yes, sorry. Yes. Other Board members, any comments, questions?

MEMBER ZIEMER: Josie, this Ziemer. I have a question. If you could clarify, you used the terminology that the extreme conservatism of the NIOSH bonding -- bounding approach given a -- an unrealistic or -- I forget the wording there -- bounding, are you saying that it's too high to be realistic since it's so conservative? I -- I didn't understand. Is the work group saying that bounding approach gives a value that's unrealistically high?

MEMBER BEACH: Potentially. Well, and I think the -- and someone else can probably answer this way more eloquently than I can, but we -- we felt that throwing the extreme high number at something wasn't necessarily plausible in -- in the usage as it was for our -- for our work group here.

CHAIR ANDERSON: I think it was --

MEMBER ZIEMER: -- bound -- bounding is often close to implausible in most cases, but it is -- that's what it is, its bounding. So, if it's implausible, it means it's -- you -- there's no way it could be that high. Is that what we're saying?

MEMBER BEACH: I think -- Henry, were you trying to speak? I think someone's --

CHAIR ANDERSON: Yeah. I was gonna say the --

MEMBER BEACH: Yeah.

CHAIR ANDERSON: -- the -- it's not too high. It's not the high dose.

It's the -- the number that's generated by the model is outlined -- you know, is too high or could be very high or could be not high enough in the kind of instances that are occurring here. Because we don't have any data for those. It's the cutting of the pipe in the earlier years, because of the discharge --

MEMBER ZIEMER: Yeah.

CHAIR ANDERSON: -- of this other --

MEMBER ZIEMER: But you under --

CHAIR ANDERSON: -- material.

MEMBER ZIEMER: You understand the reason for doing a bounding approach is where you lack data. So, --

CHAIR ANDERSON: Right.

MEMBER ZIEMER: I -- I -- I'd like to hear maybe the next time -- at the next meeting to focus on what we mean by bounding. It sounds like, you know -- if you have enough data to cover everything you don't need it bound.

(Whereupon, multiple attendees spoke simultaneously.)

MR. CALHOUN: This is Grady Calhoun. Let me just throw in just a quick little summary there for you, Dr. Ziemer, and it's very quick. The bounding of the dose that we assigned is 71 millirem per year. And the thought on the Board is that is high enough for some people, but it's too high for others.

MEMBER ZIEMER: I know --

MEMBER MARTINEZ: This is Nicole. If -- if I could just offer, this was one of the pieces within the subgroup that there was disagreement, and I

suspect that this is a topic that would be one of those longer conversations. And I don't know, I mean, maybe that's something we could do now. But I would just offer that that was a point of disagreement that, obviously, is going to have to be revisited and -- and discussed in more detail that from -- from my perspective.

MEMBER KOTELCHUCK: Right.

MEMBER BEACH: Nicole, I agree with you. And I appreciate that, I think, Paul, with SC&A's report and NIOSH's report out on the table for -- for the next meeting, I think that will be answered conclusively, because it was a disagreement.

MEMBER ZIEMER: Yeah.

MEMBER ROESSLER: Josie, --

MEMBER BEACH: Yeah. Hi, Gen.

MEMBER ROESSLER: -- this is Gen. I think I caught your idea that you're going to be providing some helpful information to the rest of the Board on this taken from the Linde SEC, and from maybe another one or two. And I think that'll be very helpful. Because I remember one time being very involved in the Linde one, but I certainly don't remember anything about it. So, I think that your summaries will -- and probably coming from two different approaches will be very helpful.

MEMBER KOTELCHUCK: Yes.

MEMBER BEACH: Yeah. Thanks, Gen. You're right. And back on the conservatism, it's -- it's -- it's a really important question that we need -- we definitely need to broach with the full Board, the extreme conservatism. It's the first time we've actually heard it in those terms. And I agree with you,

Paul, we -- we do bound dose. And if there's no dose, sometimes you do throw a number at it. So, I think that it will be good to broach this with the full Board. It's -- it's a good pol -- it'll be a good policy discussion, I believe, moving forward. So, if you -- if -- if that helps for now.

MEMBER ZIEMER: Yeah, thank you.

MEMBER BEACH: And yeah, Gen, we ended up getting into the Linde because it so closely mirrors, M&C, and the discussions and the quotes started appearing in the white papers. And so, we ended up really getting into some quotes yesterday. So, you'll see all that when the -- the packet of M&C documents becomes available to everybody. I mean, I know they're available, but when you're more focused on them. Good to see any -- any --

MEMBER ROESSLER: You know where --

MEMBER BEACH: Thank you.

MEMBER ROESSLER: You know where to look. Also, I think what -- from what you've said, we have to keep in mind that between Linde and M&C, the dose levels are very different.

MEMBER BEACH: Yeah. Oh, yes, we -- we've -- definitely understand that. Any the others?

MEMBER POMPA: This is Pompa. Yesterday I heard comments on confined space and uranium. Do we know how much uranium (indiscernible) inside those confined space?

MEMBER BEACH: We have some samples from 1995. And -- and -- and we have -- yeah, so we have some samples. We have two -- I believe two scale samples and 20 sediment samples. So, we 00 yeah, we have some idea but not the full picture, which is, of course, why we're at the point

we are.

MEMBER POMPA: Okay, thank you, Josie.

MEMBER BEACH: Uh-huh, you bet.

CHAIR ANDERSON: Okay. So, any other questions? This is just laying the groundwork and just to remind everybody we're -- we're going to get you enough information. If you want to go through the whole record, you can, but I think there's some key documents that we can pull out and lay out the two positions, and then we can have a discussion on it. Being the committee has been working on this for seven years. So, it's really not -- we really can't expect you to go through everything that we did. But I think you need to know why we arrived at various conclusions that we did.

So, if there's no other comments, we're now for the --

MEMBER BEACH: Henry.

CHAIR ANDERSON: What?

MEMBER BEACH: Henry, I -- I just wanted to comment and I -- just so it's clear. Of all of the work group members, we all voted to move it forward as an SEC, so there -- and there was one abstention. So, that to me is an important part of this also.

MEMBER KOTELCHUCK: Okay.

MEMBER BEACH: Thank you. That's all I have.

BORK WORK SESSION

CHAIR ANDERSON: Rashaun, let's go to the Board work session. I don't know, do we have any? You had a couple of updates already on M&C and on Pinellas and the procedures committee. Other committees have any update things to provide?

MEMBER KOTELCHUCK: Well, yes. Hold it. One second. Pardon me. Dave. The -- there was -- we are having our first meeting of the DRR methods working group on March 11th. We have in the past -- this is not included in the list because we haven't met for -- we haven't met as a full committee for many years. About a year ago after -- last summer we started -- we have to either decide that that working group has a meaningful role and lay out that road or not have -- not have a working group. And we talked about it. We had some have some discussions this summer, and we have new members of the working group.

So, we -- so I've had discussions with staff members, with Kathy Behling and Rose Gogliotti, and we have developed an agenda to -- for March 11. And what we're going to do is go over the Griffin report, go over our -- for the new -- then particularly with new members, the -- with the blind -- with the blind -- the results on our blinds, and then we're going to discuss, particularly focusing around Rose Gogliotti's report by from SC&A, we're going to talk about (indiscernible), and I think there are some things that we will want to pursue in terms of consistency of professional judgment. And of course, we are now -- mentioned we have some additional ideas now coming from cooperation with the subcommittee on procedures review.

So, I'm pleased that we're moving ahead, and we'll lay out a plan for -- for this working group and meet as needed as we go into the future. Okay.

CHAIR ANDERSON: Any other committees or work --

MEMBER ROESSLER: Henry?

CHAIR ANDERSON: -- groups --

MEMBER ROESSLER: Henry?

CHAIR ANDERSON: -- (indiscernible)?

MEMBER ROESSLER: Henry, this is Gen. I'd like to make just a couple of comments on ORNL-X10 to let people know that work still is ongoing. NIOSH is continuing to work to develop a coexposure approach for exotic radionuclides for the site. And they are also working on revising the dose reconstruction approach for iodine. Those are the two main areas and actually, it's the same as we reported at the August 2023 Board meeting.

CHAIR ANDERSON: Thank you.

MEMBER ROESSLER: So, that's it.

CHAIR ANDERSON: Thanks. Any other reports or plans --

MEMBER BEACH: Andy, --

CHAIR ANDERSON: -- plans for the --

MEMBER BEACH: Andy, --

MEMBER ZIEMER: Andy, this is --

MEMBER BEACH: -- talking.

MEMBER ZIEMER: Oh. Sorry, Josie.

MEMBER BEACH: Oh, that's okay. Andy, we heard earlier from Chuck on LANL. And we -- the -- the work group has been delivered several reports; however, we're waiting for a report from SC&A. It's in their review process. It's a very lengthy report, as you can imagine, covering report 101, 102, and 103. So, once we have that and are able to work through it, it's probably six months out, but since we reported on documents delivered, I wanted to make mention of LANL. And we'll make -- we'll schedule a work group meeting when it's appropriate.

CHAIR ANDERSON: Paul, you had a...?

MEMBER ZIEMER: I want to give a quick update on TBD-6000 work group. That work group covers a number of AWE sites, one of which is Joslyn, which we have met on Joslyn for a while. We're awaiting a white paper from NIOSH or -- yeah, from NIOSH. And that white paper has now been posted, and we are planning to meet February 14, actually, Valentine's Day for some reason. And so, it won't be a heartless meeting.

CHAIR ANDERSON: (Indiscernible) you, Paul.

MEMBER ZIEMER: It goes over everybody's head. But it won't be a heartless meeting. Anyway, yeah, so we'll hopefully bring Joslyn up to date and come toward closure on that facility.

CHAIR ANDERSON: Good.

MEMBER KOTELCHUCK: And just to update the report that -- that's been printed on the subcommittee for dose reconstruction reviews, we -- the one-on-ones for set 32 are beginning. And I know some are coming ahead this week. So, we're -- we're actually -- we're -- we're actually moving ahead with that endeavor. It's not only planned, it's happening now. And we're pleased about it. And we're -- on the one in (sic) ones, we're having two -- we're having two board members who have been on the Board for some time and then having a third board member among the folks who have now become members of the Board joining us so that we'll have three people on each -- on each of the groups at one in ones.

CHAIR ANDERSON: Okay. Any other updates or questions or comments? You have -- if you've got your agenda, you can see our list of upcoming meetings. Next will be February 14 call. I think that's the same

time as one of the committee meetings too, isn't it?

Then we're going to have an in-person meeting April 17 and 18th is on the schedule.

DR. ROBERTS: Yes, and -- tentatively. Yes, we've got a meeting face to face, and I think this is a good time to talk about potential locations for that. So, I'll -- I'll open it up for suggestions.

MEMBER BEACH: Do we have any ideas of what will be ready to perhaps do some in-person interviews why we're in a location?

MEMBER ZIEMER: Are there enough people in the area Metals and Controls that they -- that we would want to be close to that site when we have the SEC discussion?

MEMBER BEACH: Yes, I believe there are, Paul, and I've made that suggestion before. And yeah, we'll be ready hopefully for that discussion. That is a great suggestion.

MR. CALHOUN: Hey, this -- this is Grady. And historically we've stayed away from the sites that -- where there may be actual vote with discussion because it's a little bit too much pressure potentially for the voters. That's -- that was adopted many, many, many years ago. It just doesn't seem like a good idea.

MEMBER BEACH: What about the Florida area for Pinellas?

MEMBER CLAWSON: We were -- we were just there though.

MEMBER BEACH: Well, that's true, we were.

MEMBER FRANK: That was gonna be my comment. This is Arthur.

MEMBER BEACH: Yeah, I just knew that we were going to maybe do some more interviews, so.

MEMBER FRANK: What about we were supposed to go potentially up to California? Is that still on the list potentially? Lawrence?

MEMBER BEACH: Yeah, that was supposed to be this meeting. You're right.

DR. ROBERTS: I know there was a report, if I recall, that -- that DCAS was working on. Where does that stand?

DR. TAULBEE: This was -- this is Tim. I believe this is the ER addendum, but there's going to be some interviews that are going to be conducted out there. So, that report won't be ready for the meeting. But that is a potential opportunity if there was an area where we could kind of coordinate those interviews, although I do hope those take place before the Board meeting. But we would not be ready with the report by then. But if the Board did want to hear more from workers around the area, not per se the interviews, that may be an opportunity for you-all. Although I believe in the past, there was some difficulty with getting people to come to the meeting. Like when we held it in Oakland, there was hardly anybody that came, and so that is something to consider as well.

MEMBER FRANK: Is it absolutely necessary that we travel somewhere, or can we just do it like we're doing it today again?

DR. ROBERTS: No, it can definitely be virtual. So, if we -- the Board is having difficulty identifying a physical space and there are concerns about whether, you know, there'll be much petitioner attendance, I would say we could do it virtually.

CHAIR ANDERSON: Any reason to go to Oak Ridge? Hanford?

DR. ROBERTS: It sounds like virtually might be the most appropriate

option at this point.

MEMBER KOTELCHUCK: Yeah.

CHAIR ANDERSON: Let's -- let's just hold the dates anyway.

DR. ROBERTS: Okay.

CHAIR ANDERSON: Then we can see as the program develops.

DR. ROBERTS: Okay. Well, --

MEMBER VALERIO: I'm sorry, Rashaun, this is Loretta.

DR. ROBERTS: Hey, Loretta.

MEMBER VALERIO: How much work do we have upcoming in the next couple of months for Santa Susana and/or Idaho?

MR. NELSON: This is Chuck Nelson. As far as Santa Susana, we're still waiting on a lot of documents to arrive that we're going through. So, I think the latest projection was sometime towards the summer before we'd even get all the documents. In Idaho, there's many documents that were sent over for review for SC&A, and we're working on a report.

MEMBER KOTELCHUCK: Uh-huh.

MEMBER VALERIO: Thank you.

DR. ROBERTS: So, virtually for that. We're already scheduled out to the rest of next year, so I don't know that we need to schedule beyond that point. We like to be about a year out, so I think we're good to go with the rest of the schedule.

CHAIR ANDERSON: And it seems at least of what would be there on the agenda for April, the one thing would be we haven't seen to analyze, I don't know if we have any pressing issue or (indiscernible) update things, so virtual might work.

DR. ROBERTS: Okay, good. I think I need to -- we need to back up a little bit unless there's -- Andy, you had any more with the scheduling of -- of the meetings?

CHAIR ANDERSON: No.

DR. ROBERTS: But, --

CHAIR ANDERSON: The public comments.

DR. ROBERTS: Yeah, yeah. We can circle back to that, and I can just offer a brief summary of the comments. Just give me one minute.

Okay, so most of the public comments in August were related to Pinellas and also medical -- Metals and Control. For Metals and Control there were concerns raised about the lack of monitoring and controls for workers during the residual period and also concerns about the accuracy of NIOSH models. During the public comment period also, I read a letter into the record from Senator Markey, which asked that NIOSH and -- the M&C work group and Advisory Board carefully review the SEC petition 236 and give fair consideration to the exposure and impacts of M&C employees employed outside of the existing SEC period. There are issues that have been relevant -- all of those are issues that have been relevant to the Metals and Controls work group discussions.

With regard to Pinellas, questions were raised about NIOSH as basis for dose construction, about the absence of employee records, the presence of plutonium inside and outside the plant, and there was a suggestion to consider taking the SEC period for Pinellas to 1997 instead of 1990. There were issues that are relevant -- these are issues that are, of course, relevant to the Pinellas work group, which met last month, as was stated, to start

reviewing NIOSH's evaluation report and other documentation.

There also were some general comments about access to employee records and questions about the length of time it takes to decide on an SEC petition. And then finally, there were some questions about IREP and the dose reconstruction process. And NIOSH clarified that any substantive changes to the NIOSH IREP will be sent to the Advisory Board for review, and the Board's recommendations will be considered before completing and implementing the changes.

And NIOSH also clarified that all technical basis documents can be revised as new information is identified and that those documents may be reviewed by the Advisory Board as a part of the ongoing process of the procedures review subcommittee. And any such reviews performed by the Advisory Board would be completed after the documents are -- are approved.

So, that's just a brief summary of those public comments.

Okay. And Andy, I think that wraps up the -- the board work session. We have quite a bit of time before the Savannah River Site -- well before the break, actually. We still have a fair bit of time there, but -- but let me hand it to you.

CHAIR ANDERSON: Yeah. We have break and then is there anything on Savannah River? I didn't see that on the agenda. I think it's just the public comment period.

DR. ROBERTS: No, I was looking at the wrong thing. I'm sorry. No, there's Savannah River.

CHAIR ANDERSON: So, we have -- we know of one public commenter.

Do we have any others?

DR. ROBERTS: There may be, but, you know, there -- there weren't any that I was made aware of beyond the one.

CHAIR ANDERSON: So, we need to take -- we need to come back at five o'clock Eastern?

MEMBER KOTELCHUCK: Sure.

DR. ROBERTS: Maybe a couple of minutes before just so I can do the roll call --

CHAIR ANDERSON: Yeah, okay.

DR. ROBERTS: -- and then we can be ready to go at 5:00.

MEMBER ZIEMER: Okay. We'll be back. Do we -- quick question, this is Ziemer. Do we know if the person who wanted to speak is online now, or do we not take them if they're before 5:00?

DR. ROBERTS: Yeah, we don't take them before 5:00.

MEMBER ZIEMER: Okay, thank you.

CHAIR ANDERSON: Yeah. Paul, I had the same thought.

MEMBER KOTELCHUCK: Yeah, but --

CHAIR ANDERSON: I've tried that before, but no. It's fixed in case somebody just comes on at the last minute.

MEMBER KOTELCHUCK: Exactly.

CHAIR ANDERSON: So, everybody's got to promise -- we need to be sure we've got a quorum when we go to the public session, so don't forget to come back.

MEMBER KOTELCHUCK: Okay.

MEMBER BEACH: I'll be back.

MEMBER KOTELCHUCK: Promise.

MEMBER MARTINEZ: I'll be back. I promise.

MEMBER ZIEMER: We'll be back.

CHAIR ANDERSON: We'll stand adjourned until, let's make it, 3:50.

MEMBER KOTELCHUCK: 4:50.

CHAIR ANDERSON: 4:50, 4:50.

(Whereupon, a break was taken from 3:16 p.m. until 4:58 p.m. EST.)

DR. ROBERTS: -- starting with Anderson.

CHAIR ANDERSON: Present.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: Clawson?

MEMBER CLAWSON: Still here.

DR. ROBERTS: Frank?

MEMBER FRANK: Here.

DR. ROBERTS: Kotelchuck?

MEMBER KOTELCHUCK: Here.

DR. ROBERTS: Lockey?

MEMBER LOCKEY: Here.

DR. ROBERTS: Martinez?

MEMBER MARTINEZ: I'm here.

DR. ROBERTS: Pompa?

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

DR. ROBERTS: Roessler?

MEMBER ROESSLER: Here.

DR. ROBERTS: Valerio?

MEMBER VALERIO: I'm here.

DR. ROBERTS: Okay. And Ziemer? Paul, have you made it back yet? Okay. All right. I'm not hearing him, but we have a minute to go. So, I have five o'clock exactly, Andy.

PUBLIC COMMENT

CHAIR ANDERSON: Okay. Let's open the Board meeting for the public comment period, I believe. Denise, Dr. DeGarmo, what to do make a presentation to us, and I see she's on the line. So, Denise, are you ready?

DR. DEGARMO: I'm ready if you-all are.

CHAIR ANDERSON: We're ready.

DR. DEGARMO: Okay. Good evening, everybody. And thank you for providing me this opportunity to speak to you briefly. The Department of Energy, Department of Labor, NIOSH, DCAS, SC&S, and the Board clearly have stated in the past and present that they honor the sacrifices made by tens of 1000s of nuclear weapons workers in the production of this country's nuclear weapons arsenal. They go on to recognize that without these particular workers, the National Defense of the US would have been compromised. But do you really honor those sacrifices?

I have to ask myself this question, because the Department of Energy knows full well that former and current nuclear weapons workers did not receive adequate protection from occupational hazards. The DOE also knows that workers were exposed to ionizing radiation and other hazards is unique to nuclear weapons production and testing. Many of these same

workers have developed serious illnesses, often disabling or even fatal.

Department of Labor, NIOSH, DCAS, SC&A, and the Board know this all too well. If honoring these heroes involves stall tactics, endless delays, a refusal to acknowledge evidence that challenges preexisting knowledge, then you have failed miserably in your attempt to honor these workers. Instead, you're reeking continued suffering upon them, leaving them to suffer in vain.

This brings me to the point regarding evidence. As the authorized petition representative for SEC-00256 Pinellas Plant, I have thoroughly demonstrated through my extensive research undertakings that you, yes, you DOE, DOL, DCAS, the Board, and SC&A have underestimated or miss characterized your knowledge of the Pinellas Plant. You have failed and continue to fail to understand the important contributions Pinellas made to defense production. You even question the risk of radioactive materials present on site. The lack of knowledge regarding this facility is just downright inexcusable. Sometimes you portray yourself as close-minded, which only serves to increase the mistrust of the program meant to help former workers.

While I appreciate being included in the workgroup discussion of Pinellas Plant last month, it was and is not enough. Given the extent of new evidence I have provided to you-all, I respectfully request the work group and their affiliations expand their knowledge of the Pinellas Plant through a comprehensive review of the new evidence. You need to conduct more employee interviews because too many questions that should have been asked by the interviewers remained unasked. I have done my due diligence; you need to do yours.

Better yet, based on the new evidence, DCAS should just go ahead and acknowledge it cannot reconstruct the doses of the former workers at the Pinellas Plant and allow SEC-00256 to move forward towards approval, but I suspect I will not be granted my Christmas wish today.

And on one last note, since I don't want you to walk away from my talking points thinking I'm a Grinch, I decided in the spirit of Christmas to give you all a present that keeps on giving. Be prepare to receive several additional data drops for the Pinellas Plant. Thank you so much for your time.

CHAIR ANDERSON: Thank you, Dr. DeGarmo.

Do we have any other public members who wish to speak? There's quite a number of individuals on the line here, so you'd like to say a few words, we would be happy to hear them and appreciate it.

Hey, Rashaun, how long do we want to keep it open?

DR. ROBERTS: Well, technically -- technically, if there are no other comments, that can end the comment period.

CHAIR ANDERSON: Will anybody who is trying to make a call comment, you may be on mute so please, just check that, and we don't want to leave anybody out to wishes to comment either on activity today or other activity that's going on that's important to the Board and the public.

Hearing nothing, I'll entertain a motion to adjourn the Board meeting. Are there any last comments, Rashaun, or others wish to make before we adjourn?

MEMBER FRANK: Motion to adjourn.

CHAIR ANDERSON: Okay.

MEMBER BEACH: Second.

CHAIR ANDERSON: All righty. So, I'm assuming everybody -- if anybody's not in favor of adjourning, please speak up, if not, the motion has passed and I hope everybody enjoys coming weekend as well as a holiday, and you'll be getting more information on the proposals for M&C for April and February is -- is a call, so be sure that's on your calendar.

(Whereupon, the meeting was adjourned at 5:08 p.m. EST.)