Centers for Disease Control
National Institute for Occupational Safety and Health
Subcommittee for Dose Reconstruction Reviews
Thursday, February 25, 2021

The meeting convened at 10:30 a.m., Eastern Standard Time, via teleconference, David Kotelchuck, Chair, presiding.

Members Present:

David Kotelchuck, Chair
Josie Beach, Member
Bradley P. Clawson, Member
James E. Lockey, Member
David B. Richardson, Member
Loretta R. Valerio, Member

Also Present:

Rashaun Roberts, Designated Federal Official
Dave Allen, DCAS
Bob Barton, SC&A
Nicole Briggs, SC&A
Kathy Behling, SC&A
Ron Buchanan, SC&A
Grady Calhoun, DCAS
Duane DeMore, SC&A
Rose Gogliotti, SC&A
Beth Rolfes, DCAS
Lavon Rutherford, DCAS
Scott Siebert, ORAU Team
Mutty Sharfi, ORAU Team
Matthew Smith, ORAU Team
Tim Taulbee, DCAS
Diane Whitten

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Proceedings

(10:30 a.m.)

Welcome/Call to Order

Dr. Roberts: Good morning everybody. I'm Rashaun Roberts, the designated federal official for the Advisory Board on Radiation and Worker Health.

This, of course, is the meeting of the Board Subcommittee on Dose Reconstruction Review. There is an agenda for today. As per usual you can find it on the NIOSH DCAS website under scheduled meetings for today's date.

Let's go ahead and move into roll call. Now, since the Subcommittee will be discussing does reconstruction cases that pertain to specific sites today, Subcommittee members and others do need to acknowledge conflicts of interest and to recuse themselves from the discussion where their conflict of interest applies.

So as we move through the roll call, please state where you have a conflict of interest. And I am going to start with the Chair of this Subcommittee, Dave Kotelchuck.

(Roll call.)

Dr. Roberts: Hearing none. Thank you everyone and welcome again. Just a quick reminder; to keep everything running smoothly for this meeting and again, so that everyone speaking can be clearly understood, please make sure that you are on mute at all times unless you need to speak.

And I'm actually hearing someone right now. So please check your phone. If you don't have a mute button press *6 to mute. If you need to take yourself

off press it again.

And two, if Nancy or Zaida is on, if at any point you hear any background noise, if you could try to mute phones that would be very helpful to this process.

As I mentioned the agenda for the meeting can be found on the NIOSH website. Access to other materials was provided to the Board members or Subcommittee members prior to this meeting.

So with that let's go ahead and get started. And I will turn the meeting over to our Chair, Dave Kotelchuck.

B44 from LANL Review

Chair Kotelchuck: Okay. Fine. Welcome folks. And we have our basic, our most important discussion or the center of our discussion today will be the review of three blinds.

As I mentioned yesterday in our conference call, I would like to go in the order of the B44 from LANL, and then 43 from Hanford, and then 42 from Rocky Flats.

So quite a few of you are or a few of you are conflicted with B44, the LANL because the person visited a number and worked at a number of different sites, which are established on the record.

So let's see, if I am correct there are three of us, there are three of us who are conflicted on B44.

(Simultaneous speaking.)

Chair Kotelchuck: Hello? Jim Lockey.

Dr. Roberts: Hello. Please make --

Chair Kotelchuck: Hello? Can people hear me?

Member Clawson: Hello?

Member Beach: Yes, we can hear you.

Member Clawson: We can hear you. Yes, I --

Chair Kotelchuck: Okay good. The people who are conflicted on B44 are Jim Lockey, Josie Beach, and Loretta Valerio.

Three of us are not conflicted --

Member Beach: So --

Chair Kotelchuck: -- on that.

Member Beach: So Dave, wait --

Member Clawson: I see that.

Member Beach: -- I've got a question on that.

Chair Kotelchuck: Okay.

Member Beach: So I have a Hanford, I'm conflicted at Hanford, but there's a small percentage of this B44 that's Hanford, so does that preclude any discussion?

Chair Kotelchuck: Well, I thought about that too because the person visited and was documented at several sites. And some of them --

Member Beach: For one day.

Chair Kotelchuck: -- are for a day or two --

(Simultaneous speaking.)

Member Beach: Yeah, for one --

Chair Kotelchuck: -- some are a week. I think that to be appropriately, legally conservative that if there are, if we are considering any, if we are considering

people to be recused, it would better to have them, to have everyone who has any involvement with any of the sites that that person worked at to be recused.

Now, it seemed to me that if there were too many of us, if you will, that were conflicted, we could ask for a legal opinion and perhaps get permission for people to participate even if they were involved with something that involved a very small amount of the person's work.

However, just to be conservative appropriately, I think that I would prefer that we simply say everyone --

Sorry, are you getting an echo folks?

Dr. Roberts: Yes, we are.

Chair Kotelchuck: Okay. Now, I did not see on, let's see --

Dr. Roberts: Yes. Jim, did you just call in?

Chair Kotelchuck: No, I did not call in.

Member Beach: Loretta. Loretta, Skype that you're on --

(Simultaneous speaking.)

Member Valerio: Yes, I'm seeing if I can get out of it.

Chair Kotelchuck: How could I --

(Simultaneous speaking.)

Chair Kotelchuck: -- Skype audio, I'm on the phone right now.

Member Valerio: Is that better?

Chair Kotelchuck: Oh, yes. Certainly is.

Member Beach: That was it.

Chair Kotelchuck: How's that for everybody else?

Okay. Anyway. The bottom-line Josie, is that it would be absolutely fine if people who were involved in any one of the seven sites or eight sites total were to be recused.

We could get, we could get, possibly get permission for legally allowing people to come in who were involved in very small --

Member Beach: Dave, Dave, I'm fine with that. It's --

Chair Kotelchuck: Yes.

Member Beach: -- not a problem. I was just curious because it was such a small percentage, but that's fine as long as you have --

Chair Kotelchuck: Oh, yes.

Member Beach: -- folks on the phone.

Ms. Naylor: Hi. This is Jenny, this is Jenny with OGC.

Chair Kotelchuck: Yes, Jenny.

Ms. Naylor: I'm sorry, please let me clarify that. You know, waiver of conflict of interest is not what that was. It's not a yes or no question that could be given promptly in a telephone call.

Chair Kotelchuck: Right.

Ms. Naylor: That leads to that, you know, waiver. Whether someone's qualified for a waiver so that can participate in the conversations that involve the subject matters that implicate their financial interest.

It's a very in-depth analysis. So if so many people are conflicted for discussion of certain blind cases, then we would not be able to proceed with that portion from the event and a separate waiver we'll have to get, or exception would have to be obtained.

Chair Kotelchuck: Right.

Ms. Naylor: In this case, my understanding of the Committee's evaluation of these blind cases is primarily to see if the dose reconstructors, you know, faithfully follow the procedures that have already been reviewed and that the data from these facilities have also been reviewed.

And so I am not entirely -- if you're performing a QN/QC process, not directly reviewing the data that's being used, such as the quality and the sufficiency of the data, or you're not reviewing the validity of a certain dose reconstruction model.

I was not really understanding what is the conflict of interest here.

Chair Kotelchuck: Well, there's a blind and we're reviewing each of the dose reconstructions and comparing them.

And if we just simply exclude everyone who is involved in any one of the sites that this blind review isn't, any one of the sites that they're involved in then we are absolutely in compliance with what we should be doing.

And I have recognized if we wanted to ask for a waiver, if we needed to ask for a waiver, that would involve a long, something we could not review it right now.

And so my feeling was we could review it now. We have three people who are not conflicted of the six

who are on the call and that's sufficient.

Mr. Siebert: Well, if this --

Chair Kotelchuck: And we'll just go ahead with it.

Mr. Siebert: I'm sorry, this is Scott Seibert with the ORAU team. I want to jump in because --

Chair Kotelchuck: Sure. Sure.

Mr. Siebert: -- this is new. We have never done this this way in the past, which is okay, but I do have to point out I have a Mound conflict, which makes this blind audit, I cannot, I am part of the presenting what's going on and the claim has very little Mound employment and nothing in the -- the comparison has to do with Mound, so, I just want to throw that out.

Chair Kotelchuck: Okay. That's fair enough. I'm glad you did and my -- I actually --

Ms. Naylor: Dave --

Chair Kotelchuck: Yes? Rashaun, did you?

Ms. Naylor: No, this is Jenny Naylor --

Chair Kotelchuck: Jenny, okay.

Ms. Naylor: -- with OGC. Dave, what I'm trying to convey is that your constructions of how the conflicts is applied is much broader than what OGC has previously advised individual Board members.

So I am not entirely sure that your broad stroke of preventing every individual Board member from participating in these blind reviews is consistent with OGC's advice.

Chair Kotelchuck: I have always understood that

when a person had any involvement with the site that was being reviewed, that that person was recused. And since there are --

Ms. Naylor: Generally.

Chair Kotelchuck: -- eight. Generally, that's the case. There are eight sites here for one person.

Ms. Naylor: So generally speaking, that is correct. Because this is an open forum, I do not want to comment of individuals situations. But individual Board members have been issued specific guidelines about how to engage in these conversations.

And the basis of their conflicts is so -- also differ. Okay? It's a very fact-driven and it depends on how the potential conflicts arise.

So I'm going to stop there. I think I'm sort of giving you a sense of where OGC guidance is and, you know, I will defer to how you want to run the Subcommittee meeting.

Member Lockey: Well, I was going to say as soon as Scott talked about his conflict at Mound, I recognize. What I was doing, as Chairman of the Subcommittee, was looking at the members of the Subcommittee and their conflicts.

And three of us have no conflict with any of the sites and three of us have conflicts with a site or one or more sites.

But I did not consider, and I should say right off, I did not consider staff conflicts that may interfere. And there I would like to ask your advice.

If, in fact, we need to consider the staff conflicts as well and that they cannot participate because of their conflicts, then I think we need an advisory from you,

which would involve considerations beyond this meeting.

Mr. Calhoun: Dave, this is Grady. And Jenny, correct me if I'm wrong here, but number one, we're not going to be discussing the individual sites. We shouldn't even list their names. Okay?

I know there's a lot of sites associated with this.

Chair Kotelchuck: Right.

Mr. Calhoun: We're not discussing the individual dosimetry, whatever, can (telephonic interference) dose reconstructions. We're discussing the process.

So it seems to me that we can discuss that process because the dose reconstruction is done. It's already been adjudicated. It's been done according to all the conflict of interest protocols that we have in place.

And like Scott said, we've never done this before and just discussing the processes, I don't know how we would jump in conflict-of-interest territory here.

And it will kind of hinder us if we can't discuss the processes of the dose reconstruction, because we're not getting into the details of how the dose and what dose was available at each site. It's an overall process description and discussion, in my opinion.

Chair Kotelchuck: Which as I understand it certainly suggests that, in terms of the staff, whatever conflicts you have would not enter into our deliberations.

On the other hand, I think that for, the question is, what about the Subcommittee members? And it seemed to -- and I thought, and thought I was functioning in the way that we have always functioned, which is Subcommittee members who

have conflicts in the blind should not participate in evaluating that blind.

Or are you saying both would be appropriate? And Jenny, obviously you're here on the line and you will say what you believe or what is appropriate.

I just want to make sure that we're doing things properly. So Grady --

Ms. Naylor: I suppose -- I'm sorry that I think my ability is to comment on the specific conflict of interest situations is not appropriate on a public forum.

So --

Chair Kotelchuck: Got it.

Ms. Naylor: -- you --

Chair Kotelchuck: Got it.

Ms. Naylor: -- you would just have to proceed with however you see fit. You're the Chair of the Subcommittee.

Chair Kotelchuck: So you would not -- if I decide to go ahead, you're leaving it to my judgment. I would defer to whether it's appropriate legally, in terms of what's proper.

Since we don't have lots of meetings, I would like to go ahead with this, with the three people who are not conflicted of the Subcommittee members, and have all of the staff members who have conflicts, since they're simply talking about processes, as Grady said, to participate.

Now, let me put it, let me ask you this. Does that seem, I don't want to say, I don't want to ask you for a legal opinion, but if I'm going ahead improperly in

your judgment and you request that you have a chance to review this then we will postpone it.

I'd rather not, obviously, since folks are prepared to go over this and we've all reviewed it.

Ms. Naylor: Dr. Kotelchuck, it's really not -- it's not my place to tell you whether you should close the meeting or to terminate a meeting.

If you determine that it is more appropriate for the three Board members who have no conflicts with the sites being discussed for the blind dose reconstruction, then please feel free to proceed.

And we can definitely have a more in-depth conversation offline so that we can actually discuss the sort of the individual conflicts of interest situation.

The conflict-of-interest analysis --

Chair Kotelchuck: Oh --

Ms. Naylor: -- is applied with much more nuance than what I'm able to discuss here.

Chair Kotelchuck: Right. Okay. I understand that. So then I would like to go ahead, given that we're all prepared. I would like to go ahead with the 44th blind.

And with the staff participating fully and the Subcommittee members, myself, Dr. Richardson, and Brad Clawson being part of the review. And the other folks being recused for the next probably, half to three-quarters of an hour.

Member Lockey: So David, Jim Lockey, do you want us to call back in or just go on mute or what?

Chair Kotelchuck: It would be easier, given that

there's more than one person if you folks were to come back in and it's five of 11 now.

So if you might come back in in about half or three-quarters of an hour. There may be some discussion on this one, a little lengthier.

I would prefer if you could just come back in. Of course, you can listen, it's just a matter of not participating.

Member Clawson: Dave, this is Brad. That's a biggest thing, they cannot just participate. They don't have to leave.

Chair Kotelchuck: Right. They could be on the phone --

(Simultaneous speaking.)

Chair Kotelchuck: -- listening to the --

Member Valerio: Hold --

Member Clawson: Right, they can --

Dr. Roberts: You know, in the past, in the past though when we've done recusing, we have had the member go ahead and disconnect and then call back.

Member Beach: But that --

Chair Kotelchuck: Okay.

Member Beach: -- that's new, Rashaun. We never have done that in the past. We were either, we could sit at the back of the room, we just couldn't participate, as Brad pointed out. So --

Chair Kotelchuck: When's the --

Member Clawson: There's another part to this you've

got to think about. And that is --

Chair Kotelchuck: Okay.

Member Clawson: -- these blinds, we are learning of how different processes work, how these things go in and stuff like that. And it's not pertaining to just a site. It's pertaining to all sites.

So it makes a person that's able to be able to listen to what the process has gone through, why this is come out the way that it has.

I've always sat at the back of the room, but I'm paying attention because this is what we're learning from these blinds of how they were done.

And each one of these sites has uniqueness's to them and how that they've dealt with it. So I've always felt it's been important for them to be able to still listen to it, they just cannot participate.

Chair Kotelchuck: Right. Well, that is, that has always been their option. When we were meeting in-person sometimes folks sat in the back of the room and I see the good reasons to doing that, but sometimes people left the room.

And that's up to them, it seems to me. So I would think that that would be true here if that people could listen in but not participate.

Or they can leave and just come back online in about, I would suggest checking back in about half an hour. We have time to finish.

Ms. Naylor: You can leave your Skype up and I'll post into chat also.

Chair Kotelchuck: Okay. Good.

Dr. Roberts: Okay. Let me just check in and have

some, you know, we have had just purely virtual meetings --

Chair Kotelchuck: Yes.

Dr. Roberts: -- and we haven't had in-person meetings, so we have used the disconnection before for recusal. But let me, Jenny, is it permissible for them to listen and not necessarily disconnect?

Ms. Naylor: So first of all I think my understanding of the review of the three blind cases actually doesn't give rise to a conflict of interest for any of the members here.

Since you're not specifically reviewing the dose reconstruction models or the dose reconstruction data, but you're reviewing how they're being applied as a quality control of the dose reconstructors process.

So, I mean, this is where Dr. Kotelchuck and I actually depart, diverge on our understanding of how the conflict of interest is applied, which respect to the three blind cases.

So that's the starting point. Secondly, you know, whether you want to, I mean, on the remote platform, we would prefer that people just leave the entire platform because they can still carry-on private chats.

And this really is to the benefit to the Advisory Board members who have financial conflict of interest that there is no questions that they have entirely left the platform, that they were not participating.

And as for telephone, if this is purely a telephone meeting, then you know, we can be sort of assured that they wouldn't participate in the conversations, we can say that they have fully recused.

So I think because there is actually a platform that provides for another avenue of communication between of the recused Board member or Board member who's not recused, or that there is a chat function that allows a recused Board member to communicate to those that who are making decisions.

I think it's actually, you know, just in terms of an abundance of caution, it's probably better for Board members to sign off the Skype platform itself.

If you decide to remain on the telephone, just, like you say, you know, you can listen but do not participate and don't make comments.

Chair Kotelchuck: Well, I think you're legal counsel and so I think that what you said says to me that Jim, folks should actually sign off and come back on in about an half an hour.

And if we're still going on that, signoff. I do not think it will take more than an hour. It probably will take somewhere between half an hour and three-quarters. And I'd check in at half an hour or three-quarters.

And if you come in in the very last moments, you know, that's okay if the conversation is clearly closing, but that you should leave now since that is our best legal advice at this point.

Okay? Jim, and Josie --

Member Lockey: I got you.

Chair Kotelchuck: Okay. And we'll get back together with you. And now I think we'll start with the presentation of B44.

Ms. Gogliotti: Okay. Can everyone see my screen?

Chair Kotelchuck: Not yet.

Member Clawson: I just see the agenda.

Ms. Gogliotti: Right. That's what I've got up --

Chair Kotelchuck: Right.

Ms. Gogliotti: Okay. I just wanted to make sure that --

Member Clawson: Okay.

Ms. Gogliotti: -- that was showing.

Chair Kotelchuck: Yes.

Ms. Gogliotti: Alright. We have three cases from the 28th set that we'll be presenting today. Just because of this, most of the case actually have some aspect of the case that we're going to be especially vague on.

As you know, with the blinds, any little bit of information that we reveal about the case lets you perhaps filter down into the individual that the claim was about.

So we're going to be necessarily vague while we discuss these cases. I have the case pulled up on the screen so if you have any questions on that it should be there.

If you have any more detailed questions we can, of course, have the conversation offline, but with that, I will turn this over to Kathy.

Ms. Behling: Okay. Let's get started.

Chair Kotelchuck: Alright.

Ms. Behling: Alright. I'm going to start on page 7 of

our review. And as we've been discussing this Energy Employee, this EE primarily worked at LANL and for a 30-year period.

But he also visited numerous sites. So to get started, we have our Table 1-1, which is the summary of the individuals diagnosed cancers.

And this is a unique case because SC&A interpreted the DOL records as showing six cancers and we believe what may have happened is NIOSH actually calculated doses for 12 cancers because they inadvertently added duplicates of the first six cancers.

The reason we've come to that conclusion is DOL initially, when the initial case and reported this to NIOSH, and they had incorrect cancer diagnosis dates.

And thereafter, they submitted a report to NIOSH, an amended referral, indicating that they needed to, they should have replaced the dates and disregarded the other cancers and replaced the correct diagnosis dates that they reported in this event and referral.

So what Table 1-1 shows is SC&A calculated doses for the first six cancers listed in that table and NIOSH calculated doses for 12 cancers.

The cancers that are listed there from seven to 12, I've put in a parenthetical number behind that because it's our interpretation that those are a duplicate of the number that is in parenthesis behind the seven through 12 cancers.

Okay? And if we move on then, we'll move on to Table 1-2, which is a comparison of doses that were calculated by SC&A and NIOSH. And the comparison shows for the first six cancers that NIOSH and SC&A calculated doses that were nearly identical or

identical.

There was one environmental dose that we'll discuss later that shows some differences. We'll discuss that as we move through.

And if we move on, pages -- let's see here, 13, actually pages 13 through 17 show the doses that were calculated by NIOSH for the remainder of the six cancers that SC&A did not consider.

Even though NIOSH and SC&A calculated doses for a different number of cancers, both resulted in PoCs that were less than 50 percent. And so this case was not compensated.

If we move on now to page 18, this is a comparison, or this is a table of the individuals employment history. And you can see it's a lengthy history and, as I said, the primary work location was LANL and then there were seven other sites that the individual visited.

For calculating these doses, both NIOSH and SC&A relied primarily on the Technical Basis Documents for these specific sites. They also used OTIB-5, which is to determine your IREP models.

OTIB-17 for the shallow dose, interpretation of the shallow dose. The implementation guide one, which is your external implementation guide.

And also OTIB-54, which is for calculating fission and activation products. We move on then to Table 2-2. This table shows us a comparison of the data that was used by both methods and the assumptions.

And in the last column, when there's just a little line there, that indicates there were no differences in the data or the assumptions used by NIOSH and SC&A.

And, as you can, by scanning down through Table 2-2, there were very few areas where NIOSH and SC&A had any significant differences.

And we will discuss those in more detail as we work through this dose reconstruction. Okay. We can move on now to page 24. And --

Member Clawson: Excuse me. Kathy --

Ms. Behling: Yes?

Member Clawson: Rose, is this supposed to be shown as she's going through this? Are you guys showing this on the screen, because I still just have the agenda.

Ms. Gogliotti: Oh. I apologize, I thought my screen was showing, but let me try this again.

Chair Kotelchuck: It is showing for me. The screen has been showing fine for me.

Member Beach: It's showing --

Member Clawson: Oh, has it? I've still got the agenda up. Maybe I need to log out and log back in. Because it's still just -- I just have the agenda --

Chair Kotelchuck: Okay.

Member Clawson: -- go ahead. I'll figure it out.

Ms. Behling: Okay, Brad? I can wait if you'd like.

Member Clawson: No. You go ahead. I've got paperwork here I can follow along too.

Ms. Behling: Okay.

Member Clawson: I am just going to --

Chair Kotelchuck: Okay. Good.

Member Clawson: -- use this. Thank you.

Chair Kotelchuck: Okay. Good.

Ms. Behling: Okay. Very good. Alright. We're going to start with the external doses. And unless I hear something to the contrary, I am going to, because we have a lot of ground to cover here, I am going to try to focus on the areas where there's differences.

I will mention when things are the same, but I'll try to move along. If there are any, at any time somebody wants to stop me, I'm moving too fast, please, you know, please don't hesitate to --

Mr. Calhoun: This is Grady. Do you want to cover the process of why there were 12 versus six? Or do you want to wait until after the individual doses are covered? Whichever way is fine with me.

Ms. Behling: Okay. Now, okay when you say it's a process, as to why there were six rather than --

Chair Kotelchuck: Well, the discussion of six versus 12, that would say, Grady, that's certainly a matter of concern to me and I was going to raise it at the end of her discussion in the discussion period.

Mr. Calhoun: I'll just --

Chair Kotelchuck: So why don't we --

Mr. Calhoun: -- just wait till the --

Chair Kotelchuck: -- hold that till later and then talk about it toward the end in the discussion toward the end?

Mr. Calhoun: Alright.

Chair Kotelchuck: Okay.

Ms. Behling: Okay. And I hope I've explained, I can go back if for just briefly to explain why SC&A or how SC&A interpreted the records differently than NIOSH perhaps.

But SC&A gave --

Chair Kotelchuck: Well --

Ms. Behling: Okay.

Chair Kotelchuck: Why don't you, why don't you finish what you have prepared and --

Ms. Behling: Okay.

Chair Kotelchuck: -- I thought you covered it briefly --

Ms. Behling: Okay.

Chair Kotelchuck: -- and clearly Grady was wanting more discussion. I would like more discussion about that point, but let's come back to it later --

Ms. Behling: Okay.

Chair Kotelchuck: -- and let you go on as you have been.

Ms. Behling: Okay. Very good. Again, we're now on page 24 for the external doses and I will start with the LANL photon doses.

There were some recorded photon doses while the individual worked at LANL. NIOSH and SC&A treated those the same. They assumed, they both interpreted the records the same, applied the same DCF values, entered the dose as 30-250 keV photon dose, and they calculated the same dose value, which is shown on the screen.

Again, for recorded dose, SC&A and NIOSH approached the calculation of this dose the same. And they calculated the same dose, used the same, interpreted the records the same, used the same DCF values.

However, the only difference in this particular dose is the way it was entered into IREP. SC&A assumed that the recorded shallow dose was less than 30 keV photons and NIOSH assigned that dose as greater than 15 keV electrons.

Moving on then to missed dose. There was a slight difference in the number of zeros that were counted for the missed photon dose. NIOSH counted 39 zeros and SC&A counted 40.

This resulted in a slight difference of 15 millirem total difference in the missed photon dose. And I show in Table 3-1 where that difference occurred.

There was one additional zero added in the 1991 timeframe that NIOSH did not include.

Chair Kotelchuck: Right.

Ms. Behling: And you can see your doses there in Table 3-1.

Chair Kotelchuck: Right.

Ms. Behling: Okay. Moving on to page 25, missed neutron doses. Again, there was a difference of one zeros counted by NIOSH and SC&A.

SC&A counted 41 zeros and NIOSH counted 40. This resulted in a 10 millirem difference between the total doses assigned for the neutrons.

Both NIOSH and SC&A assigned the doses as 100 keV to 2 meV neutrons with a log normal distribution GSD

of 1.52. We move on now to the visited case.

A visited site, can I say where he --

Chair Kotelchuck: No. I think not. I think --

Ms. Behling: Okay.

Chair Kotelchuck: I think because this --

Ms. Behling: Okay.

Chair Kotelchuck: -- is public. And that --

Ms. Behling: Okay. Okay. So as you see on the screen, this individual visited another site. There was recorded photons, the individual was monitored while he was at this facility.

Again, NIOSH and SC&A calculated the doses, they interpreted the records the same and calculated the doses the exact same doses. They were (telephonic interference) 30 keVs.

Okay. I'm hearing a little background noises --

Dr. Roberts: Yes. We need to mute.

Ms. Behling: Okay. And I'll move on. They were both entered at, both methods entered the doses as 30-250 keV photons. And they were entered, the annual doses were entered as a constant distribution.

There were monitoring periods where missed photon dose needed to be calculated. In this particular case I'm showing on Table 3-2 there was some difference in interpretation of the records.

SC&A counted ten missed doses and NIOSH counted five. And the other thing that was different in the calculation of the missed photon doses, SC&A used LOD values for the penetrating dose from OTIB-17,

touch and see.

And NIOSH used the non-penetrating LOD values. So you can see the difference there. And because there was a difference in the LOD values used even though SC&A counted twice as many zeros, the doses were only ten millirem different.

Dr. Roberts: Right.

Ms. Behling: Okay. We'll move on then to missed shallow dose. And again, SC&A and NIOSH calculated missed shallow doses in the same manner, interpreted the records the same, and calculated the exact same missed shallow dose.

It was entered into IREP as less than 30 keV photons with a log normal distribution and a GSD of 1.52. No differences there.

We'll move on to missed neutron doses. In this particular case, and I have to apologize and make a change to Table 3-3, NIOSH interpreted the record as, they counted five zeros for missed neutrons and SC&A counted eight, and I have ten listed in that table and that should be eight.

Page --

Chair Kotelchuck: You're right. You're right. Yes, adding up the column on your SC&A zeros, that's right.

Ms. Behling: Yes.

Chair Kotelchuck: Okay. So that's a --

Ms. Behling: My --

Chair Kotelchuck: -- if you will --

Ms. Behling: My apologies.

Chair Kotelchuck: -- typo.

Ms. Behling: Yes.

Chair Kotelchuck: But the numbers in the table, in fact, are correct.

Ms. Behling: Yes.

Chair Kotelchuck: The other numbers, the individual --

Ms. Behling: Correct.

Chair Kotelchuck: -- years.

Ms. Behling: Yes.

Chair Kotelchuck: Good.

Ms. Behling: All right. And both methods used the same LOD values and they applied the ICRP-60 correction factor of 1.91.

And so as you can see in the table, there was about 150 millirem difference in the doses calculated, and that was based on the fact that there were different number of zeros counted between the two methods.

All right. We will move on then in Section 3.3, the individual also visited another site. And there was monitoring. There was one recorded photon dose.

And NIOSH and SC&A calculated the same values for that, used the same assumptions, and those are listed in Section 3.3.1.

There was also one positive recorded shallow dose. And again, NIOSH and SC&A calculated the same dose, used the same assumptions.

Entered the data into IREP consistently as less than

30 keV photons with a constant distribution.

Okay. We'll move on then to missed photon dose. Here again, there was a slight difference in the number of zeros that were counted for the missed photon dose, and NIOSH assumed one zero and SC&A assumed three.

The other thing I'll point out at this particular site, when SC&A did their dose reconstruction there was a newer revision of the occupational external dose.

So NIOSH used a Revision 2, and SC&A used a Revision 3. Okay. NIOSH assigned a missed photon dose based on a beta LOD of 15 millirem and SC&A used the photon LOD of 10 millirem and this resulted in a very slight difference in dose, a 3 millirem difference in dose.

The data was entered in IREP. Consistently, between the two methods as photons between 30 and 250 keV, with a log normal distribution and GSD of 1.52.

Okay. And we'll move on to missed neutron dose. Again, there was a little bit of difference in the interpretation of the records.

NIOSH counted two zeros and SC&A counted three zeros for the neutron. NIOSH used an LOD value of 15 millirem, where SC&A used an LOD value of 10.

Both calculated a total dose that was the same because of the difference in LODs and number of zeros counted. And that dose was entered into IREP, split into the various energy distributions for the neutrons of less than 10 keV, 10-100 keV, .1 to 2 meV and 2-20 meV neutrons as specified in the sites Technical Basis Document.

Okay. Now we will move on to, I think we're on the fourth site that this individual visited. Here the

individual was again monitored while visiting this site. And all of the doses were zero.

So they were treated as missed photon dose. NIOSH and SC&A both counted five zeros. They used the same LOD and day and this resulted in the same total missed photon dose.

Missed neutron dose in Section 3.4.2, again, NIOSH and SC&A did most things the same here. Both counted five zeros. They used the same LOD values, applied the ICRP-60 correction factors and that resulted in the same total dose.

And again, that dose was entered as a log normal distribution with a GSD of 1.52.

Okay. We'll move on to page 28. This is an additional site that the individual was monitored at. Although he was monitored, the results of the monitoring were all zero.

And so again, there was just missed photon dose calculated. And both NIOSH and SC&A interpreted the records the same. Assumed two missed photon doses and calculated the same total dose.

And that was entered into IREP as 30-250 keV photons. Again, with a log normal distribution and GSD of 1.52.

Same thing with missed neutrons. NIOSH and SC&A made the same assumptions, they used the same LOD values, applied the appropriate ICR P-60 correction factors, and both calculated the same total dose.

Okay. We're going to move on into Section 3.6. This is another facility that the individual visited and was monitored. All the monitoring records were zero.

So there was missed dose calculated. And again, NIOSH and SC&A used OTIB-17, Attachment B to calculate this dose, and that resulted in them calculating the same missed photon dose.

And they entered it into IREP in the same fashion, 30-250 keV with a log normal distribution and GSD of 1.52.

Okay. We'll move on then into Section 3.7. Individual was also monitored at another site. Monitoring resulted in zero dose.

And so missed photon dose was calculated and again, NIOSH and SC&A used the same assumptions, the same approach and calculated the same dose.

Moving onto page 29, Section 3.8. Again, the individual visited another facility and was monitored on two occasions or at least, the missed photon dose was calculated by NIOSH and SC&A and NIOSH assumed two zeros and SC&A assumed one zero.

This resulted in a five millirem difference between the total dose calculated by the two methods.

Okay. We're going to move on now to onsite ambient dose. And this was calculated based on when there was partial monitoring. And again, some interpretation of the record.

In Section 3.9.1 both NIOSH and SC&A calculated onsite ambient dose for the LANL employment and they used the mean environmental dose values, partial years of employment, and monitoring, and also they calculated employment hours and applied a correction factor for the employment hours.

And although they approached it, the onsite ambient dose the same, there was a small difference in the total doses. Very small and it was, the result of that

was because of prorating for partial years of employment and periods of the EE was not monitored. There was a little bit of a difference there.

Okay. And moving to Section 3.9.2, this is another facility where NIOSH evaluated onsite ambient dose using the guidance in the Technical Basis Document for this facility.

The doses calculated were less than 1 millirem and SC&A did not assess doses for this, onsite ambient doses, for this particular facility.

Okay. We'll move on to 3.9.3 on page 30. Here again, SC&A interpreted the records that the individual was at one of the sites for a 20-year period off and on.

And so because of that they calculated onsite ambient dose for that time period. And that resulted in a dose of 285 millirem.

NIOSH did not calculate an onsite ambient dose for this facility because they assumed that the DOE records represented the entirety of the individual site visits.

Okay. Now we'll move on to occupational medical dose.

Chair Kotelchuck: If I may interrupt.

Ms. Behling: Okay.

Chair Kotelchuck: Let's just say this was, if you will, the home base of the person whose dose is being calculated. And that might --

Ms. Behling: The onsite ambient --

Chair Kotelchuck: -- that's the base, if you will, the home base.

Ms. Behling: No. No. This is a facility that the individual visited. However, if you look at the DOE records for that time period, it was listed for not, what was it, 17-year periods.

And we know --

Chair Kotelchuck: Oh, and then you are right and I am wrong. That's right. I'm looking at both what you have here and also my own notes in reviewing it and --

Ms. Behling: Okay.

Chair Kotelchuck: -- that was not the home base.

Ms. Behling: Right.

Chair Kotelchuck: That was another site that was extensively -- the person was extensively involved there. Okay. Good.

Ms. Behling: Okay.

Chair Kotelchuck: Sorry.

Ms. Behling: All right. Then we'll move on to the occupational medical dose. And both SC&A and NIOSH calculated doses based on the records. And both used information from the Technical Basis Document.

There was a very slight difference in one or two of the cancers and this was the result of just mathematical rounding. It was a 3 millirem difference and it only had to do with a mathematical rounding issue.

So virtually, they calculated the same doses. Okay. We will move on to page 31 and this is occupational internal doses. And the EE was monitored for internal dose by a whole-body count and chest counts.

And all of those results were left in the minimum detectable activity. So for the individual's home base location, both SC&A and NIOSH chose to calculate doses based on coworker intakes.

NIOSH assumed that the internal dose occurred in one quarter of one of the years, and SC&A assumed a full potential for exposure for that year.

In calculating that dose, they used default values from the WebCAD program, and both calculated doses that were less than one millirem.

For this home base location, both NIOSH and SC&A also calculated environmental internal dose for the entire employment period. They used the same approach, used the WebCAD program, and calculated the same doses.

And if we move on to Section 4.2, one of the internal monitoring records seemed to be associated with a visit at one of the sites, and so again, NIOSH and SC&A assumed coworker intakes at the 50th percentile assuming cesium-137 Type S.

And additional radio nuclides were based on .15 times that cesium-137 value.

They compared the solubility types of M, S, and Super S and found that type M resulted in the most claimant-favorable dose. And they calculated small doses, but they were very similar.

In addition, both considered fission and activation products with this facility, and they used the OTIB-54 workbook and assumed a 50th percentile values and used strontium-90 as their indicator radial-nuclide.

And this resulted in both of them calculating a dose of less than one millirem. Moving on to Section 4.3.

There was also internal dose calculated for another site visit.

Let me see here, both calculated again, internal dose based on a 50th percentile coworker mixture of weapons-grade plutonium, and they compared solubility types and type Super S was the highest, but the doses that resulted from these assumptions were less than one millirem.

Okay. That sums up the internal and external doses. And I'll move on to Section 5. And Section 5 we recently added, and it's those areas there was professional judgment impacted this particular case.

And as you can gather, based on my description of these two dose reconstructions, because the individual visited many sites and there were a lot of DOE records and some of these records were difficult to interpret.

There were duplicates of the same dosimetry cycles and overlapping data and some inconsistencies. This led to professional judgments being used in areas such as missed photon dose, missed neutron dose, and whether to assign onsite ambient dose.

So if we move on then to our summary conclusions in Section 6, page 35 lists differences and, as we talked about, we started out with the assessment of the number of diagnosed skin cancers.

And there was obviously a difference between SC&A and NIOSH in that regard. Again, missed photon doses, NIOSH assumed five zeros, SC&A assumed ten.

Again, this is interpretation of the records. For missed neutron dose, again, a difference between NIOSH assuming five zeros, SC&A assuming eight.

And just going back to that interpretation of the record. And for the environmental external dose, NIOSH assigned environmental dose to one particular facility that the individual visited and SC&A did not and vice versa.

There was one facility where SC&A assigned dose, environmental internal dose or external dose and SC&A did not, or I'm sorry, NIOSH did not.

And again, this is just a lot of interpretation of some maybe confusing records. So that sums up my review, my comparison, and I'll try to answer questions.

Chair Kotelchuck: Okay. So this was I would argue a difficult case for NIOSH and SC&A to try and do the dose reconstruction because the person worked at many different sites.

And there was good agreement for the six cases where they both reviewed them, but SC&A looked at 12, excuse me, SC&A did calculations for the other, excuse me, NIOSH did calculations for the other six sites, and both agreed that the combined PoC was less than 50 percent, but the PoCs were significantly different, both below 50 percent.

Comments or concerns, and certainly the issue of calculating six versus 12 cancer sites is certainly on the table. And Grady, you had some thoughts about that before and I would be interested in those.

Mr. Calhoun: Okay. Yes, this is Grady. And I have looked at the whole process pretty in depth here. And so basically what happened is the case was originally referred to us with six cancers.

They were all diagnosed on the same date. A little bit later, DOL issued a clarification. And so they had six cancers all with different diagnosis dates.

The crux of the issue started when rather than replacing the existing six cancer dates, we added the six cancers. And so those were added to NOCTS and at the time the dose reconstruction was done there were 12 cancers in there.

And that's what the dose reconstruction was based on. And so we didn't catch that, we probably should have. Ultimately it was caught, and it was caught during the close-out interview with the claimant.

So before the dose reconstruction was final, it's still considered a draft at that point, we discussed this with the claimant and we, you know, we came to the conclusion, well both of us said, oh, well, this is not correct.

We have six cancers not 12. And so then what I believe was a relatively poor decision on our part, we said, well, it's still less than 50 percent. Delaying it is not going to change the outcome because it's still less than 50 percent. So we let it go like that.

We won't do that anymore. I've talked to my staff and especially something that's in the best estimate realm, if something comes up in a close-out interview, we could've went back to DOL, verified that there were truly just six and then revised the dose reconstruction and sent it back out.

So that's the details and that's exactly how it happened. So it's not pretty, but that's where it is. And you know, luckily for us it was caught at the end.

I wish it would have been caught a little earlier, but I also think we probably should have gone back and changed it at the close-out interview process and issued a new dose reconstruction with, you know, probably close to half of that PoC number.

Chair Kotelchuck: Okay. Okay. Thank you, because

that really answers an important question and I'm very glad to hear that, first, that the process involved you actually had a close-out interview, and the answer is there were six cancer sites.

And certainly there is agreement on the decision of NIOSH and SC&A, right? That is that the PoC, the combined PoC for the person was less than 50 percent.

So in terms of the decision, the decision was correct or the decision, as the blind reviewers with a blind review, both the groups got the same compensation result.

And I'm pleased to hear that there was a follow-up -- there wasn't a follow-up, there was a discussion at the conclusion and that this was found.

So that satisfies my primary concern about this. Brad and David, would you want to weigh in on things and ask questions, concerns?

Member Clawson: Well, no, I think it was explained well and stuff. It's still an issue and it's a Finding, but that's why we're going through these dose reconstructions is to be able to find out when we are making issues, being able to make it better, be able to go from there.

And I do agree with Grady that we probably should have taken care of this before then, but I can also understand why we didn't, but this is why we're here and I'm good with what we've got.

Chair Kotelchuck: David?

Member Richardson: All right, this is David. Yes, David Richardson. I've got a question. Prior to a close-out interview, so there's a dose reconstruction and then there's a secondary review where a second

person had signed off on it.

Does that secondary review not include sort of the assessments at the endpoints or the outcomes, you know, the cancers, the sites? Is that sort of outside of that secondary review?

Mr. Calhoun: I think generally what happens -- this is Grady again. I think generally what happens and I'm not sure what level review.

We've got a ton of reviews in there and it should have probably been caught somewhere in those reviews, but typically what happens in the review is you get a split screen that pops up and you get one that has NOCTS data that has verified cancers, and verified employment and whatnot, and you compare what's written in the dose reconstruction to what's written in NOCTS.

At that time the 12 were still in there. That's since been fixed. So I'd imagine that's why it was sent out through that.

Member Richardson: Yes. I just, you know, and I appreciate the explanation and it makes complete sense how it ended up like that.

I mean I'm just thinking we don't want a process that relies upon the claimant for catching kind of errors that we could catch through a process of checks.

And this one was a situation where, regardless of that, it didn't change the decision. If it had, the claimant would have been put into the uncomfortable position of saying yes, let's say it was a positive decision, but yes, it was a positive decision, but no, you've made a mistake and so reverse that.

We don't want the claimant to be in that position either. So I'm trying to think about where those other

checks failed. And it wasn't an error, which agency? Is this a Department of Labor issue? Should they have corrected it or was it a NIOSH issue?

Mr. Calhoun: Based on what I have looked at in the last couple of days, I believe that we should have caught, we, NIOSH, should have caught the referral from DOL said that these were revisions to the cancer diagnosis states and not additional cancers. I think that's where the whole problem started.

Chair Kotelchuck: I also understand that, at the point, as you move to the exit interview and realize that, in fact, there really were only six cancers, at that point you also had the option of delaying compensation, delaying the decision and reevaluating the numbers and coming back with the same decision.

So you understood that, although there was an error, the decision was going to stand. And therefore --

Mr. Calhoun: I think that --

Chair Kotelchuck: -- let the decision go through with 12.

Mr. Calhoun: I do but I don't like that.

Chair Kotelchuck: Me neither.

Mr. Calhoun: And --

Chair Kotelchuck: Me neither.

Mr. Calhoun: -- we won't be doing that again.

Chair Kotelchuck: Right.

Mr. Calhoun: Yes.

Chair Kotelchuck: And so that's a proper, that's a

proper change of procedure to deal with something that came up as it did there.

And certainly, looking at the six cases where both NIOSH and SC&A did the evaluation, your numbers are quite similar. There really is, they really were pretty much the same.

So --

Ms. Gogliotti: I have a question.

Chair Kotelchuck: Sure.

Ms. Gogliotti: With this particular case, obviously we do it blind, but once we uncover the blind, once we submit our memo blocking out all of our numbers, we obviously went and looked to see what NIOSH came up with right away because we were interested --

Chair Kotelchuck: Right.

Ms. Gogliotti: And --

Chair Kotelchuck: Of course.

Ms. Gogliotti: -- at that point in time, NOCTS still had 12 cancers listed, which would imply that when NIOSH became aware of the change, they didn't update NOCTS?

I'm just kind of curious why they didn't make that change --

Mr. Calhoun: I'd have to come back and find out when NOCTS was changed. I don't know that one.

Ms. Gogliotti: I know that it was fixed now. It just, at the time, did not.

Chair Kotelchuck: So I am, yes, I am comfortable now with approving this blind with the explanation

that Grady gave. And certainly satisfies my concerns.

I would, in approving this, I think I would like almost to append the statement or have something in the record that of what you basically said, Grady.

And I don't know where to put that. Whether we should append it to our decision. Our decision has to be, the most important one is are the compensation results the same?

And the answer is yes. So on that basis, we approve. It would be, I think it would be nice somehow to put in the record that there is an understanding that there, in fact, there were only six cancers and that the procedure will be changed, the procedure will be improved in the future.

Ms. Gogliotti: Can I suggest adding it to our comparison report table? I got it pulled up here on the screen, where we always --

Chair Kotelchuck: How would you do that? And --

Ms. Gogliotti: Well we typically explain the cause for the differences. Here you see, I've done it for the cases we've already discussed.

Chair Kotelchuck: Okay.

Ms. Gogliotti: I could add a statement in the comment section explaining that.

Chair Kotelchuck: On page --

Ms. Gogliotti: With this particular one --

Chair Kotelchuck: -- like 36 or 35, 36.

Ms. Gogliotti: Oh, no. The Comparison Report that I have, I'm sorry, we're calling multiple things Comparison Reports.

Chair Kotelchuck: Okay.

Ms. Gogliotti: We do these summary tables where we compare the PoCs. It's just a short-hand way of looking at what was discussed in the case and where the differences lie that we summarize that the Board puts out.

This particular one though, I don't think we would be able to PA-clear just because of the number of cancers might be too, reveal too much about a claimant.

But we could certainly put it here and we might have to add the comment in the next secretary letter also explaining what happened because that's going to throw off your statistics.

Chair Kotelchuck: Well but I would say we are looking for -- they might, but the most important number is the comparison of the decisions in the blinds that we review. And there we will approve, at least I will suggest we approve and apparently the others will too.

So Grady, what do you think in terms of how, if you might give us advice on how you would feel about Rose's suggestion of putting it in that comparison or --

Mr. Calhoun: I mean, I don't --

Chair Kotelchuck: -- whether we might --

Mr. Calhoun: I don't know what it would buy us or not buy us. If it's a matter of, you know, we know where the mistake was made, we're going to do what we can to fix that mistake.

Had it been over 50 percent and we found that out, we would have changed it. Now, you there, there still

is another piece of the pie that I need to look at and see about the final decision and what DOL said about that.

Because if they included the 12 cancers in their final decision and didn't find that as a mistake, then they accepted it as 12 cancers as well.

So that's another piece of the puzzle, but I do agree with you. Regardless, it wasn't pretty, but it still came up on the right side of 50 percent.

And we're all aware of that now. So I'm not sure adding it would do anything good or bad.

Chair Kotelchuck: You know --

Mr. Calhoun: You know, there certainly are findings there and we accept those as findings, didn't change the comp decision. I'm not proud of it --

Chair Kotelchuck: Yes.

Mr. Calhoun: -- but, you know, that's where it is.

Chair Kotelchuck: I wonder if that's something we should not allow you to look into? Perhaps discuss with Rose and think about what would be an appropriate place and recommend to us next time.

So I would say we will approve with perhaps an added statement or we could hold approval until we clear up that. I recognize you can't, it's hard to make a decision like that right now. There are things you have to consider that the Subcommittee doesn't have to, the Subcommittee doesn't have to consider.

So --

Mr. Calhoun: I mean what was Rose considering adding? Just, you know, more details to the Finding or what? I'm not sure.

Ms. Gogliotti: We don't have --

Chair Kotelchuck: I'm not exactly sure --

Ms. Gogliotti: -- Findings with blinds.

Chair Kotelchuck: -- either. Huh?

Ms. Gogliotti: We do not have Findings with blinds. That --

Mr. Calhoun: Right.

Ms. Gogliotti: -- policy --

Mr. Calhoun: That's all right. Well --

Ms. Gogliotti: These are just --

Mr. Calhoun: -- yes --

Mr. Buchanan: -- just a way of documenting the reason for the differences.

Mr. Calhoun: Well if I find out, even if I don't find out anymore, I'll just send you what my look into this has found.

But that we may go back and ask to see the final determination from DOL. We typically don't get those. So I can take a look at that.

Chair Kotelchuck: Okay. In a way it's clear that the approval on the compensation decision or at least I'd like to recommend that we approve the compensation decision from the Subcommittee.

And then we can either say we will approve and get a report at the next, our next meeting about how to modify the statement to take into account what Grady explained on the six versus the 12.

Would you, would other Subcommittee --

Ms. Gogliotti: How about we let Grady --

Chair Kotelchuck: -- members --

Ms. Gogliotti: -- investigate what the final compensation decision was as determined by DOL because neither one of us have access to that.

Chair Kotelchuck: Correct.

Ms. Gogliotti: And if there was a problem, perhaps DOL also needs to investigate how that happened. That's somewhat outside of our purview though.

Chair Kotelchuck: Right. Right. And actually, I would like there to be a statement somewhere.

The question only is do we approve and then look at a statement, look at what Grady suggests and with consultation with you if need be, or do we simply say that it's in progress and actually formally make the decision later?

I would like --

Member Clawson: I suggest that we --

Mr. Calhoun: I don't --

Member Clawson: -- table it.

Mr. Calhoun: -- I don't think if there's a reason not to close this out because this is basically just going to be FYI at this point, there's not going to be any additional actions.

Chair Kotelchuck: That's correct. That's correct. So I would agree that we should approve and just the FYI, if you would report to us at the next meeting.

(Simultaneous speaking.)

Member Richardson: This is David Richardson --

Member Clawson: Sorry, David.

Chair Kotelchuck: So I think -- go ahead.

Member Richardson: We don't do that many blinds, and I feel like we've encountered a qualitatively different type of error then we are typically looking at.

Chair Kotelchuck: Right.

Member Richardson: So for me, given that the sample of blinds is so small, you know, it just raises a concern in my mind about was there a process in place where as information was updated on cancer outcomes, it was generating redundant records?

I mean, that seems like -- and that's not something which, you know, many of our, the kind of, the procedures we had in place for selecting cases, weren't targeting, you know, that flavor of problem --

Chair Kotelchuck: Mm-hmm.

Member Richardson: It's not like we attempted to oversample where there's, you know, multiple of, you know, large numbers of cancers in a single claim.

So we don't really have a good handle on it, I think. I think it's, you know, if you want to close this one out, but that's fine, but I'm, I think it's worth putting this on the table as a different category of problem which we haven't encountered before.

Chair Kotelchuck: Right.

Member Richardson: So it's one of these sort of black swan things. Once you see it it's unnerving a little bit.

Chair Kotelchuck: It is. It is. Should we, perhaps, as we for a Subcommittee, just put in in our professional judgments table, which we're going to be talking about at the end of this meeting?

Ms. Gogliotti: Well I'm not sure that this was a professional judgment. This was an error that got propagated through.

Chair Kotelchuck: Right.

Member Clawson: This is Brad. Well one of the things that bothers me about it is missing six cancers. That's pretty big. You know, I can understand a little bit there.

I do have to agree with Grady though. Nothing's going to change on this. Everything is what it is, but I do agree with David that this kind of does make us -- well it makes me feel uneasy that we could honestly miss this big of an issue there.

But it's not going to change anything with this and I think that we need to, I think that we ought to push forward with it. This one's not going to change, but I also agree that we need to look at what DOL, because this is not just problem with us now because it's how does it come out in DOL, everything else like this?

We need to look at each one of these cases as in 15 or 20 years they're going to come back and we'll have to be to understand how we did it.

Chair Kotelchuck: Yes.

Member Clawson: And this one will be, this one would be a little bit different.

Chair Kotelchuck: Right.

Member Clawson: We've got to cover our bases on

this to make sure that everything is clear of what happened, what we did with it, and that things were corrected with it.

Chair Kotelchuck: Well, you know I'm thinking as you're talking, this discussion will be in the transcript. And therefore, in the public record for anybody --

Member Clawson: That, that --

Chair Kotelchuck: -- reviewing what we did.

Member Clawson: -- that's true, but I do not know if years down the road if there was a question with this that they would be able to come back into the transcripts.

There has to be something put into this file to help understand what went on with it. And I'm not, see this is a blind, this is one pick that we've taken out of how many thousands --

Chair Kotelchuck: Right.

Member Clawson: -- to be able to review. It's got to go into the NIOSH's original dose reconstruction so that people will be able to see that we realized that there was an issue there, we took corrective actions, we corrected the problem and went forward.

But there's got to be something, somewhere that addresses this to make sure that people know that this has been handled right.

Chair Kotelchuck: So --

Member Clawson: And that has nothing to do with what we're doing here today. Today we are taking, we are comparing that we've got a dose reconstruction here.

We have found a problem with it. It's not going to

change any of the compensation or anything else like that, but somehow as this group we need to be assured that the information is going to be put into this file. It's going to be taken care of.

And also too, you know, just like what Grady says, this is one of them that bothers me a little bit is what is DOL showing? Are they showing six cancers or 12 cancers?

But that is, in my opinion, that is not the purview of this group.

Chair Kotelchuck: It is.

Member Clawson: But we need to make sure that this looks and that this is taken care of correctly.

So my suggestion would be we accept it, but that Grady reports back to us what they've done to be able to assure that people down the road would be able to see this and be able to understand what went on with it.

Chair Kotelchuck: Okay. Grady, would that be acceptable to you? To report back to --

Mr. Calhoun: Sure. I'm going to give you the information I got as soon as I get it.

Chair Kotelchuck: Very good. Okay. So I think Brad, what you said, I agree with you.

So I'd like to formally move that we approve and also with the understanding that Grady will provide us with the discussion, will report back to us at the next meeting.

Member Clawson: Right and that, I guess, I would like something in Rose's report because, you know, this is a big difference between NIOSH and them.

And help them understand why there was a difference. I just want to cover our bases as a Work Group that we have evaluated, yes, there's a problem here, it was taken care of, this is how, you know, this is why and maybe later on we can take the information from Grady's report and even put into SC&A's.

Chair Kotelchuck: I suggest that when Grady checks out and makes a decision about how he would like to handle it, he will transmit that to Rose, I'm sure, to SC&A, and then SC&A people can tell us also at the next meeting how they would like to address, if at all, a change in our report.

Or how they would like to address this issue. And the Subcommittee can consider it.

Ms. Behling: And this is Kathy Behling, if could just make a comment or just a --

Chair Kotelchuck: All right.

Ms. Behling: -- suggestion. I believe in our Comparison Report in Section 1 we attempted to explain, you know, we took an entire paragraph to explain what we think, what we thought happened and we also looked at all of the records obviously, and --

Chair Kotelchuck: Right.

Ms. Behling: -- the DOL records clearly state in there that this is to replace information that we provided to you previously.

So that from my perspective, just as a suggestion, we have included that, I think, in our background information.

But I agree with Rose, with regard to the way the

Subcommittee has chosen to document what, especially for these blinds, is that Summary Comparison Report that Rose was referring to.

And I think that is consistent by putting a statement in that comment section, that was the design of that report. It was to, at a glance, be able to see the differences, put in a comments section that says, this is why there were differences.

And so I strongly agree with Rose that that's the place to document this, and that is consistent with what we have done in the past. That's just my opinion.

Chair Kotelchuck: Okay. But let me understand exactly. The Summary Report. Are you talking about the table in which we give the PoCs for both of the NIOSH and SC&A, the table, which is now 44 blinds --

Ms. Behling: Yes. It is.

Chair Kotelchuck: -- long?

Ms. Behling: Yes.

Chair Kotelchuck: Is that what you're referring to as the --

Ms. Gogliotti: Well, this is --

Ms. Behling: Yes. Rose --

Ms. Gogliotti: -- just for the 28 set. But yes.

Chair Kotelchuck: Yes.

Ms. Behling: Yes.

Chair Kotelchuck: Okay. That's fine. I think that may be appropriate. I would like to move on though, and

we've got three other people --

Member Clawson: Right.

Chair Kotelchuck: -- I mean if we're going to approve, let's approve and then we can go on and have reports on this.

And you can perhaps fill in the Subcommittee folks a little bit before the next meeting or for the next meeting about how you're going to insert it.

And I think what you say sounds appropriate. And Grady will --

Member Clawson: Hey, Dave?

Chair Kotelchuck: Yes.

Member Clawson: Dave, this is Brad. I just want to make one thing clear in this. The biggest concern that I have with this one, and I know that Grady has acknowledged it and everything else like that, but that they saw that there was a problem there and I just want to go on the record with this, that they saw that there was a problem there and they did not correct it.

That is what my total issue with this one is. Because if we take a look at this, this is a ripple effect through the whole process from NIOSH, DOL, everything.

By correcting this, I think that we'll be good. I think that we will be able to proceed on, but my number one concern with this is that it wasn't fixed.

Grady has acknowledged that. We understand that, but that is my only real issue that we have here. Plus documenting our findings. And I think that we're doing that right now.

Chair Kotelchuck: Yes.

Member Clawson: I just wanted to go on the record of what my issue is with this. It's because it was not fixed.

Chair Kotelchuck: Okay. And I would like to -- well the discussion about this, the broader discussion, I would like to hold off for the next meeting and approve this at this point.

What you suggested before as the resolution, approve now, have a report back from Grady and SC&A at the next as to how they would like to document the concerns that we're raising.

Member Clawson: That's fine.

Chair Kotelchuck: Yes. Okay. Is that okay with you, David?

Member Richardson: Yes.

Chair Kotelchuck: Okay. So let's consider that taken care of and approved. I agree as well.

And I will ask, I will ask Jenny to clarify for me when we have the follow-up discussion, the issue of the folks who had been recused from this discussion.

And also discuss with her the overall procedure if this were to come up again.

Okay. Now we need to, it's noon, five after 12. I would like to go on a little bit and start, if we could, start the next B43.

If that -- what do you, can we do that for half an hour, maybe three-quarters of an hour and then break for lunch?

Member Clawson: Sure. I'm good with it.

Chair Kotelchuck: Okay. Does anybody need a --

Dr. Roberts: Dave, for --

Chair Kotelchuck: Go ahead.

Dr. Roberts: -- for this one, do we need the folks that signed off back?

Chair Kotelchuck: That's right. We need Jim Lockey and Loretta Valerio.

Member Lockey: David, I'm back.

Chair Kotelchuck: Okay. Wonderful. Glad to hear it.

Member Valerio: I'm back too.

Dr. Roberts: Okay.

Chair Kotelchuck: Oh, wonderful. Okay.

Dr. Roberts: Okay. Great.

B43 from Hanford Review

Chair Kotelchuck: So folks, is that okay if we go ahead and begin on B43?

Member Clawson: Yes. I'm good with it.

Chair Kotelchuck: SC&A folks? Okay. Do people need a comfort break right now for five minutes? Anybody? Do I hear a call for a break for five minutes?

Member Clawson: Sure. Why don't we take a quick five-minute break, come back? We'll --

Chair Kotelchuck: Okay. And it's --

Member Clawson: -- we'll hit this one.

Chair Kotelchuck: -- 12:09. We'll be back at 12:15 and we'll start on B43. Okay?

Member Clawson: Okay. Sounds good.

(Whereupon, the above-entitled matter went off the record at 12:09 p.m. and resumed at 12:17 p.m.)

Chair Kotelchuck: Terrific. Okay. So, we're ready. Rose, are you ready?

Ms. Gogliotti: Yes. Oh, sorry. My screen isn't sharing anymore. Let me get that back up for you.

Chair Kotelchuck: Okay. Excellent.

Ms. Gogliotti: Okay. Can everyone see that?

Chair Kotelchuck: Yes, I can. I can't speak for everybody. I can see, yes. Everybody else okay?

Member Clawson: Yeah. This is Brad.

Chair Kotelchuck: Okay.

Ms. Gogliotti: Okay. Well, our next case --

Member Valerio: Dave, this is Loretta. We're having internet issues. So, I'm trying to get back into Skype. I'm logging back in now.

Chair Kotelchuck: Okay. Good. We'll wait for a moment, then.

Ms. Gogliotti: Okay. Is Nicole on the line still?

Ms. Briggs: Yes.

Ms. Gogliotti: Actually, I will hand things over to Nicole now while we wait.

Chair Kotelchuck: Okay.

Ms. Briggs: Okay. Should I start or should I wait for Loretta?

Chair Kotelchuck: Loretta, are you on the line on the phone?

Member Valerio: Yeah. Yeah, I'm here. Go ahead and start.

Chair Kotelchuck: Thanks.

Ms. Briggs: Okay. Okay, this is Case B43 for Hanford. We'll start on page seven, which Rose has already up on the screen.

So, this case involves multiple cancers, which are summarized there in Table 1-1. And both SC&A and NIOSH, the dose reconstructions resulted in a PoC of less than 50 percent for this case.

We'll move onto page eight. And that's where we have Table 1-2, which lists the individual dose assignments for each cancer. And for each cancer you'll see that the total dose that was assigned by SC&A and NIOSH, they're actually very close. I'll just sort of glaze over it, not to be too specific, and say they all were in the neighborhood of six rem. But you can see the exact value from the screen.

But, interestingly, the associated PoC values for each of the cancers do differ. So, although the combined PoCs were both below 50 percent, NIOSH calculated a combined PoC of 49.4 percent and SC&A's was 38.33.

I should also say that both NIOSH and SC&A used the enterprise edition of IREPs to calculate the PoCs with the 10,000 iterations and the 30 runs to determine their PoCs following all the protocols.

So, I think now we'll move down to page 10, where you can see Table 2-1, which lists the employment dates. So, I'll just generally describe this individual as a construction trade worker who worked all over

the Hanford for many, many years.

Now, I'm going to spend a little bit of time talking about the work locations, because that is an issue that's important to this case. In the CATI report, the EE lists numerous work locations, but the individual does emphasize some particular locations where there was exposure potential. They mention the waste handling area, and also the reactor area.

So, of the many years that the EE worked, there are actually only two where the work location is specified. And for that, one year was for waste handling and one year was for the reactor area.

Now, since it was not apparent where this EE worked for any of the other years, it's hard to pin down where they were at a specific time, NIOSH and SC&A used their judgment to assign work locations. So, NIOSH chose the plutonium production area for the majority of the employment. And also included the reactor area for one particular year, which was mentioned in the records and also in the CATI.

Now, SC&A chose a different approach. They split the employment between the reactor area and the waste handling area.

So, choosing a work location will affect the assigned energy fractions of photons, neutrons, and electrons that are used in the dose calculations. And then those energy types and fractions are put into IREP to calculate the PoC.

Now, for this case, those different choice of work locations sort of rippled through the dose and the IREP calculations, which resulted in that difference in the PoC values.

So, we'll, I guess, move down to Table 2-2 on page 11. So, this is the table of a comparison of all of the

data assumptions used by NIOSH and SC&A for each of those dose assignments. And I'm going to discuss each of those differences in detail as we move through the specific dose assignments.

So, let's start on page 13 with the external dose section. So, we'll start with the recorded photon dose. Both NIOSH and SC&A assigned a recorded photon dose, which were essentially identical. I'll say about in the neighborhood of one rem, but you can see the exact values on the screen. But, due to the different work locations, the assigned energy fractions differed slightly in terms of the assignment between low energy photons, 30 to 250 keV, and greater than 250 keV photons.

So, for the recorded shallow dose, which is on the same page, both NIOSH and SC&A assigned recorded shallow dose. This is the dose assignment that we think may have had the biggest impact on this PoC difference.

So, NIOSH assumed that the shallow dose was due to exposure from low energy photons, which is appropriate given the assumption that the EE worked in the plutonium facility. But SC&A assigned recorded shallow dose as electrons. And that assumption is appropriate given the assumption that EE worked in the reactor area and waste handling.

There were a couple of other differences in the shallow dose assignment. So, this is sort of gets into the details, but we found that it was possibly these little decisions that added up at the end. So, for the measurements that were positive but below one half the limit of detection, NIOSH assigned those as zero readings. But SC&A included those as recorded shallow dose. So, as a result, SC&A's recorded shallow dose values were slightly higher. SC&A also included a closing attenuation factor, which was

appropriate for electrons and for the particular cancer location.

All right. I'll move onto missed photon dose, on page 14. So, both NIOSH and SC&A used the same Hanford guidance for the assignment of missed photon dose. There's a lot of detail in these Tables 3-1 and 3-2. They explain the breakdown of the dose readings, and also the small differences in dose assignment.

So, the Hanford guidance states that if both the non-penetrating -- I'm sorry, I'm hearing a little back noise.

Okay. Can you hear me?

Member Clawson: Yes, we can hear you.

Ms. Briggs: Oh, okay. Let's see. The Hanford guidance states that if both the non-penetrating and the penetrating readings are zero in the records, then the non-penetrating limit of detection, which is often higher, is used to calculate the dose. Now, if only the penetrating dose reading is listed as zero, then the penetrating limits of detection is used.

Now, I wanted to explain this, because even though the missed photon dose totals were very close and the number of assigned zeros was very close, NIOSH and SC&A actually used slightly different methods to arrive at those values. You can see there's a different distribution of penetrating and non-penetrating zeros that were assigned. And the difference in the assigned dose, which you can see, is due to the different proportion of those doses from non-penetrating and penetrating assigned zero readings.

So, I'll move ahead to the missed shallow dose, on page 15. So, as I mentioned before, recorded shallow dose, as in the recorded shallow dose section, NIOSH

assigned shallow doses as low energy photons and SC&A assigned them as electrons.

So, for this assignment, NIOSH had two zero readings for missed shallow dose and SC&A assigned nine. These small differences require a little bit of explanation and can be confusing. Okay. When the dose records list a positive reading for the penetrating dose, and list a zero reading as the non-penetrating dose, SC&A assigned those as zero readings for missed shallow dose, which totaled nine in this case.

Now, NIOSH only assigned missed shallow dose for the instances that the non-penetrating dose reading was positive, but below the limit of detection provided by two. So, those low shallow dose readings, which are below the limit of detection divided by two, are therefore turned to zeros as a claimant-favorable assumption. And so NIOSH only assigned missed dose for those instances, of which there were two. So, in this case, it's a small difference, but it explains the small difference in the dose totals.

I'll move onto the missed neutron dose, on page 16. So, this EE was monitored for neutrons during employment, but all of the results were below the limit of detection. Both SC&A and NIOSH assigned missed neutron dose. Their dose totals happened to be nearly identical, but they arrived at those values using different methods. So, NIOSH assigned 62 zeros and SC&A assigned 79.

Let's see. So, you can see on page 16 that some of the dates of the assignment of neutron dose differ. From what we can tell from the records, NIOSH only assigned missed neutron dose for a certain time period. So, later during the employment, the EE appeared to have been issued a basic dosimeter, so

they were technically not monitored for neutron at that time. But SC&A assigned missed neutron dose throughout the employment period, which explains the higher number of assigned zeros.

And, let's see, as with the photon and shallow dose, the choice of work locations are going to affect the energy fractions that are used in the dose and the IREP calculations.

So, I'll go to the onsite ambient dose, which is on the same page here, 16. So, for several years at the end of employment the EE was not monitored for external exposures. And both NIOSH and SC&A assigned onsite ambient doses, which were nearly identical. The only small difference is that NIOSH assigned ambient dose for a portion of the last year of employment, and SC&A did not, presumably because they did assign missed dose for that year, as well. And as I said, that accounts for the very small difference in the assignment of the ambient dose.

Okay. Occupational medical dose on the same page 16. The EE had documented X-rays for several years, and both NIOSH and SC&A assigned nearly identical doses from these procedures. The small difference is attributed to the fact that, for one of the cancers, NIOSH and SC&A chose slightly different locations on the body as the target location to model the dose.

So, without going into too much detail, this was understandable given the description of the cancer locations, which I believe, as you can see in that paragraph, is described in the report. I don't want to go into too much detail about the cancer locations because that maybe a little too revealing in terms of Privacy Act issues.

Chair Kotelchuck: Right. Right.

Ms. Briggs: So, let's see. In addition, the EE had a PA

and also lateral exams performed in the last year of employment. Now, NIOSH assigned dose from both of those exams. SC&A did not include the dose from the lateral exams because that was indicated as being performed at an offsite location. So, according to the guidance in OTIB-79, it does not need to be included in the dose reconstruction if it was performed offsite. So, we believe that's -- and that's why SC&A didn't include that one as part of the occupational medical. But, as I said, the doses were extremely close.

Alright. We can move onto the internal doses comparison, which begins on page 18. And we'll start with plutonium. The EE was monitored for plutonium exposure with urinalysis bioassays and chest counts, all of which were below the limits of detection. And both NIOSH and SC&A assigned missed plutonium dose by assessing both the urinalysis data and the chest count data.

So, NIOSH and SC&A doses were very close. The doses range between about 10 and 40 millirem, depending on the cancer location. The only issue -- not really an issue, the only difference -- NIOSH and SC&A used the same parameters, but they did use a slightly different approach.

So, they both chose to assign the doses calculated from the urinalysis data. But SC&A chose the Super S absorption type and NIOSH chose Type M absorption. So, NIOSH explained that they chose Type M intakes from the urinalysis data because they found it to be consistent with the chest count data that was all below the limit of detection. And also, since the Super S type is retained in the lung longer, they found doses from the Type M intakes to be higher for this particular cancer location.

But SC&A used the guidance in OTIB-49, and

explains their approach. They explain that for a Super S plutonium, it maybe released more slowly into the urine than Type S, which results in a larger dose after the last urinalysis measurement than is normally predicted. So they followed the guidance in OTIB-49 and applied the multiplier of four to the internal doses that were calculated after the last urinalysis measurement.

So we think it's this difference in choice in the absorption type that accounts for the small difference in the missed plutonium doses. But these differences wouldn't have that great of effect on the PoC.

So, I'll go to the uranium intake on page 19. So, the EE was monitored for uranium exposure with several urinalysis bioassays, one of which was above the detection limit. NIOSH and SC&A used nearly identical methods to assess dose from recycled uranium and its associated radionuclides. And they both calculated total doses that were below one millirem for all of the cancers. And both NIOSH and SC&A calculated doses from both the positive results and from results that were below the limits of detection.

So, NIOSH compared those doses and assigned the higher one for each year, whereas SC&A included doses both from the acute and the chronic exposures. Either way, though, they were so low that the doses totaled less than one millirem, as I had said.

Okay. We'll go to the fission product intakes on page 20. The EE had urinalysis bioassays for strontium-90 and whole body counts for cesium-137. All were below the detection limits. Both NIOSH and SC&A used the procedures in OTIB-54, which is specific for assignment of fission products. NIOSH calculated missed dose from fission products using the cesium as the indicator radionuclide.

Just a little description of OTIB-54. The OTIB-54 procedures and the workbook that's used calculate doses from numerous fission products and activation radionuclides for various types of facilities. And, in this case, it's in relation to the cesium intakes.

Now, SC&A assessed missed dose using both the urinalysis data and the whole body count data. They performed one assessment of the urinalysis data using strontium-90 as the indicator radionuclide, and another assessment of the whole body count data using cesium as the indicator. It was this difference in approach that accounted for the difference in the dose assignment, which is only about, I believe, about a 10 millirem difference.

Chair Kotelchuck: How much difference?

Ms. Briggs: About 10 millirem.

Chair Kotelchuck: Mm-hmm.

Ms. Briggs: Let's see. I'll move to the coworker intakes on page 21. At the beginning of the last employment period, the EE was monitored with urinalysis and whole body counts, which were specifically labeled as baseline measurements. And both NIOSH and SC&A acknowledge that it was a baseline and decided to assign internal dose for specific months during the last year of employment using the Hanford coworker intakes.

They both took into consideration the fact that the EE was in the construction trades and applied the appropriate correction factors from OTIB-52. And both came up with an identical dose of about one millirem for each cancer.

The environmental intakes, on the same page. Both NIOSH and SC&A assessed doses from environmental intakes for the years that the EE was not monitored

for internal exposure. NIOSH also included a dose from environmental intakes for the very last year of employment.

Now, SC&A did not include an environment dose for this year, presumably because coworker intakes were assigned for that year. But both NIOSH and SC&A ended up calculating doses that were less than one millirem per year anyway. NIOSH chose to include those small doses in the IREP calculations, but SC&A did not. Either way is appropriate here.

Okay, I'll go to, let's see, page 22 has SC&A section on decision points requiring professional judgment. So, here we featured the key issue that we believe impacted this case, which is the work assignment -- I'm sorry, the work location assignments.

So, you'll see Table 5-1 and 5-2 summarize all of those assignments and how they differed between NIOSH and SC&A and how they could have affected the assignment of energy fractions and their energy types. And this particularly illustrates how judgment is needed when the annual job locations are not known or are not clear. And, for this case, those choices affected the external photon, neutron, and the shallow dose calculations.

And we also mentioned here that some judgment was used when choosing the target locations for occupational medical dose for the one particular cancer.

Okay. I'll move to the -- to summarize, on page 24. This is where we summarize and reiterate all the differences in the dose reconstruction that we just discussed. And, as I mentioned before, I'll say that the same IREP addition was used, and the same methodology was used to run the IREP calculations for the PoCs for both of the dose reconstructions.

So, Table 6-1 summarizes the comparison of dose estimates for external and internal doses. And you can see how the dose estimates are all, like I said, in the neighborhood of about six rems for each --

(Telephonic interference.)

Chair Kotelchuck: Hello?

Member Clawson: Yes.

Chair Kotelchuck: Hello?

Member Clawson: Hello.

Dr. Roberts: Hello.

Chair Kotelchuck: I think the speaker got cut off.

(Telephonic interference.)

Chair Kotelchuck: Hello?

Ms. Gogliotti: Well, we may have lost Nicole.

Chair Kotelchuck: We did. We did lose her for a little bit. If she can go back. She's going over the Table 6.2.

(Simultaneous speaking.)

Ms. Gogliotti: Someone is definitely not on mute. And they may be giving away more information then they want on a public line. Thank you.

(Telephonic interference.)

Dr. Roberts: Hello. Please put your phone on mute. Thank you. Okay, hello?

Ms. Briggs: I'm sorry, can you hear me? I'm sorry. I got dropped from the call.

Ms. Gogliotti: Yes. That's all right.

Ms. Briggs: Oh, my goodness. That's never happened to me before.

Ms. Gogliotti: No, that's all right. We do this often, so you're fine.

Ms. Briggs: Oh, okay. Yeah, we're finishing up.

Chair Kotelchuck: Could you --

(Simultaneous speaking.)

Chair Kotelchuck: Sorry that person isn't off the line. Could you go back to Table 6-1?

Ms. Briggs: Yes. I'm sorry. Yeah, I really apologize for that.

(Simultaneous speaking.)

Chair Kotelchuck: Oh, that's all right. Those things happen. I'm not --

Ms. Briggs: Is it possible to get that line muted? Sorry.

(Simultaneous speaking.)

Chair Kotelchuck: So, back to Table 6-1.

Ms. Briggs: Okay. Are we good? Okay. Yes, I'm sorry. So, Table 6-1. So, as I said, you can see, as I said before, the individual dose assignments were very close. And then right below it you'll see the PoC values which differ. And the difference isn't necessarily proportional. And that ended up with a combined PoC different value of --

Participant: Hello?

Member Clawson: Hello.

Ms. Briggs: I'm sorry. I just --

Member Clawson: We still hear you.

Ms. Briggs: Oh, okay. I heard someone keep popping in and speaking, and I wasn't sure what was going on.

Chair Kotelchuck: That was Brad. That was Brad. But, we're listening.

Ms. Briggs: Oh, okay. I'm sorry. Let's see. Let's see, where did I end? So, NIOSH 49.4 percent, SC&A 38.3. And, from what we can tell, it appears that it was the job location assumptions and the accumulation of those small differences for energy types and energy ranges which caused that difference in the PoC.

So, that was actually pretty interesting results.

Chair Kotelchuck: Yes, it was. It was a little -- oh, and you haven't finished, perhaps. Let me --

Ms. Briggs: Well, actually, I'm done. That's pretty much --

Chair Kotelchuck: Okay.

Ms. Briggs: But, you know, any questions, I'll try to answer.

Chair Kotelchuck: Well, the difference -- I mean, it's interesting, because your total dose was really quite similar in all of them. And yet the difference in the PoCs was a little larger than we normally experience when there's basic agreement. So, here's a case where the --

Participant: Hello?

Chair Kotelchuck: If it looks -- ma'am, close off.

Dr. Roberts: Hello, please mute your phone, please.

Chair Kotelchuck: Here's a case where those small differences really did accumulate in the PoC. And that's -- but I think you did -- it seems to me you described them properly as to where the differences were. And this is just a little bit greater difference than we normally see. But the compensation decisions were identical.

Member Clawson: Dave, this is Brad. I would like to talk about that. I'd like to go back to that job location, because this has come up numerous times in different places, especially with sites like this where there's so many areas they can be. And, you know, this shows a substantial difference.

Chair Kotelchuck: Yes.

Member Clawson: And that's kind of what's worrying me. I'm wondering if we could go back to the energy -- what was it, work location 3.2, or something like that, I thought it was. Because I'd like to understand how come. And you said it was because of job locations.

Ms. Briggs: Right. We had -- there really wasn't any -- when we were doing this comparison, we couldn't find any, sort of what I'll all a smoking gun, to point it in one direction. So, we realized that the difference had to have come from -- particularly, we think it was the difference between assigning a shallow dose and part of the photon dose as low energy photons, versus the 30 to 250 and greater than 250 keV photons.

And that goes back to NIOSH's assignment of the work location as the plutonium area, which was correct. You know, so, if that person worked in the plutonium production, then some of the doses would be from a low energy photon. So, that was correct.

It really had to do with making that decision as to where you want to put the individual.

Now, SC&A's assignment was actually consistent with some of the information from the records and the CATI. It's tough, because I can't describe particular years and particular locations.

Chair Kotelchuck: Correct.

Member Clawson: I understand.

Ms. Briggs: Yeah. So, I'm not --

Chair Kotelchuck: I'm looking at Table 2-1, though.

Ms. Briggs: You're looking -- oh, okay. I'm sorry.

Chair Kotelchuck: That summarizes it for us here.

Ms. Briggs: Oh, okay. Rose, can you put that one up?

Ms. Gogliotti: I have 5-1 and 5-2 up, which I think does a really good job.

Chair Kotelchuck: Oh, that's okay. That's fine.

Ms. Briggs: Okay. There we go.

Chair Kotelchuck: Sure.

Ms. Briggs: So, yeah, there's the differences you can see on the tables, and the different assignments.

Member Clawson: Right. And I'm looking at the shallow. There's almost -- it's almost half versus NIOSH's. Okay, well, that's what was interesting to me on this.

Mr. Siebert: This is Scott.

Chair Kotelchuck: Go ahead.

Mr. Siebert: Let me just -- yeah. This is Scott Siebert. Yeah, basically, it came down to the dose reconstructor. As Nicole said, it's very hard to place this individual in a location. Even with the interview information, it was clear that they were in various places on the site. I'll just leave it at that.

The records also kind of give that indication also with plutonium monitoring, as well as neutron monitoring. So, once we see that information, and there wasn't enough to really hang our hat on, the dose reconstructor made the decision to go with the claimant-favorable assumption that they were working in the plutonium areas.

That's really where they made their professional judgment. And you're right, the less than 30 keV and especially a larger proportion being the 30 to 250 keV DCFs, when it comes out of IREP that's going to be a very big PoC change.

Member Clawson: Well, and Scott, I give credit to NIOSH for the more claimant-favorable and stuff like this. I guess I'm really looking at this from a, not just this site, but other sites when we're dealing with this, of how we're placing people and how we're trying to give them a claim. It's above and beyond what we're doing in here, but it just brought a lot of questions to my mind, especially with the energies and how we're going to handle those.

So, that's what was interesting to me. I understand what you guys did there. I give you kudos for taking a more claimant-favorable position. I give SC&A kudos for, you know, trying to go through the CATI and do the best that they can in this. But it was just interesting to me that we had such a difference and it came down to just the energies. So, I appreciate it.

Mr. Siebert: Absolutely. There is one other thing that

Nicole mentioned, which I think is a wise thing to point out. We were talking about the whole less than the LOD over two, that I believe SC&A considered those as positive readings and NIOSH considered those as zeros. Actually, that process is outlined in OCAS-IG-1, where the decision was made originally that if a numerical result exists that is greater than zero, but less than the LOD over two, that it's counted as a missed dose zero and we assess missed dose accordingly.

So,- that will have an impact on these things as well.

Member Clawson: I understand.

Chair Kotelchuck: Any other comments by other Board Members?

Well, I certainly -- I also was, you know, concerned about the difference in PoCs, as I indicated before. And I hope as we identify in terms of professional judgment, the issue is not simply the lack of records as to where the person was working, because that person worked all over, you know, the large facility, but, really, the underlying problem was that this was a journeyman trades person, and that this problem occurs often when we're dealing with somebody who is a trades person at a site. At many sites this problem occurs. And I hope, as we record professional judgment, we also denote what the person's occupation was within the facility.

So, folks, well, are there any other -- again, any other comments?

Should we move to approve? I would like to move that we approve.

(Simultaneous speaking.)

Chair Kotelchuck: Go ahead.

Mr. Barton: Dr. Kotelchuck, yeah, this is Bob Barton. If I could just -- if I could ask just a quick clarifying question on what Scott just said.

Chair Kotelchuck: Sure.

Mr. Barton: Which, if I heard correctly, was that even if you have a numerical result, if it is less than the LOD over two, it is considered a missed dose for the dose reconstruction process.

Is that purely for the assessment of external doses? Or, I mean, does that apply generally for even internal doses where you might have a numerical result that is less than the MDA over two?

Mr. Siebert: That is only for external.

Mr. Barton: Okay. Just for external. Okay. Thank you.

Chair Kotelchuck: Okay. That's okay. Other questions, concerns, comments?

So, hearing none, I'd like to move approval by the Committee.

Member Clawson: I'll second that.

Chair Kotelchuck: Okay. Comments?

Okay. So the lack of comments suggest to me that we're all in agreement. Is that correct?

Member Clawson: It is for me, Dave. This is Brad.

Chair Kotelchuck: Okay.

Member Valerio: That's correct, Dave. This is Loretta.

Chair Kotelchuck: Okay. Very good. David?

Member Richardson: Yep.

Member Lockey: And Jim Lockey --

Chair Kotelchuck: In agreement.

Member Lockey: Jim Lockey, yes.

Chair Kotelchuck: Okay. Very good. Okay. We're in agreement, and it's so approved.

Now it's time to break. Of course, it's getting even a little late, a little later then I thought. It's 12:55. So, why don't we take a lunch break from now, consider it one o'clock. We'll take a lunch break until 2:00. And then resume at two o'clock with the last of the three blinds, in which all of us will participate.

(Whereupon, the above-entitled matter went off the record at 12:54 p.m. and resumed at 2:02 p.m.)

Chair Kotelchuck: Okay. I think we can go on.

B42 from Rocky Flats Review

Ms. Gogliotti: Okay. Sounds good. We only have one more blind case to go over today. And that is Blind 42, which is a Rocky Flats case. And Duane is going to present it.

Mr. DeMore: Alright. Hello, everybody. Yes, as Rose said, we'll go through this comparison here. This is for a Rocky Flats case, as she said. If you look at Table -- I guess we're going to start on Table 1.2 where we can talk about the -- well, yeah, we'll start on Table 1.2, the introduction information there. I don't think there's anything too important there. If you look at the table here, it outlines the doses for the multiple cancers as calculated by both NIOSH and SC&A. In general, NIOSH calculated about 14 rem per cancer. SC&A calculated doses, on average, say. 400 millirem higher per cancer. The combined PoC for these, on page 9, NIOSH calculated 47.87 percent

and SC&A, with the slightly higher doses, had a slightly higher PoC at 49.34 percent. But, as you all know, importantly, those are both below 50 percent, so this was a non-compensated case.

Going through the methodology, this employee worked at Rocky Flats in two different stints for about 25 years total. Again, there's two different periods of time there. All the dose assessments were done in accordance with all the listed TBDs, the normal references.

I'm on Table 2.1. We're comparing the data and assumptions used by NIOSH and SC&A. In most cases, they were the same. You can see everything is all outlined here. If you go down, there's -- and we'll talk about it more in detail -- there's some differences in the number of zeros assumed for missed photon and missed neutron doses. There's some slight differences with the standard deviations assumed for some log-normal distributions. And those are all very minor. And the big one we'll talk about later is some assumptions related to the internal plutonium missed dose and the absorption types.

Okay. So, now we're on the photon dose. They were generally -- this individual was generally monitored during their employment periods. They had some varying bad badge exchange frequencies, a fair number of zeros, but also recorded dose. Nothing too complicated or off-normal related to the reported photon dose.

There's a slight difference in that NIOSH assigned a total dose of 302 millirem and SC&A assigned a total recorded photon dose of 303 millirem due to a difference in one particular assumed year. And I'll lump that into the recorded shallow dose. We'll kind of talk about why that is off by one millirem.

Again, under 3.2, under the recorded shallow dose, again, all the same assumptions were there. Nothing too abnormal. NIOSH assigned a shallow dose of 160 millirem and SC&A assigned a total of 177 millirem. Now -- and these are related to differences, in this case, related some 1986 differences. So, the recorded deep dose was a difference in '85; shallow doses in '86.

The differences here is the approach to the neutron dose. The neutron dose should be separated out from the recorded deep or shallow dose to determine the deep or shallow dose. NIOSH -- in those cases, there was identified neutron dose, but it was below the LOD over two. NIOSH subtracted that out from the reading to get a value, whereas SC&A, because it was below LOD over two, considered it zero and did not subtract it out. That's the reason for those differences in both the recorded photon and the shallow dose.

Okay. And then neutron dose, again, we've got listed all of the assumptions, everything there. And there was no differences there between NIOSH and SC&A. And we assigned the total neutron dose of about 450 millirem.

Missed dose. Here's another case where there's some slight differences, but they're explained fundamentally in how the different groups counted the zeros. NIOSH assigned a missed photon dose of 995 millirem with the associated standard deviations. Their issue, the difference was of the number of zeros. NIOSH assumed 89.7 zeros. If you look right below that, SC&A counted 85 and a half, 85.5 zeros.

And that's just the difference in NIOSH uses the VOSE calculation, the VOSE methodology. So they get different zeros, if you're comparing these tables in 3.1 and 3.2, Tables 3.1 to 3.2, you can see where NIOSH has extra fractions of zeros in certain years.

That accounts for the difference in number of the number zeros when you have --

Chair Kotelchuck: Could you -- could I just ask -- I'll just interrupt. I'm sorry to interrupt a little bit.

Mr. DeMore: No, you're fine.

Chair Kotelchuck: But I don't -- I hadn't heard of the VOSE, the use of that, the VOSE methodology. Could you just say a word, or could somebody say a word, about that?

Mr. DeMore: Yeah, I'd need someone else to help me out on how the VOSE methodology -- the VOSE tool.

Mr. Smith: Hi, this is Matthew Smith with ORAU Team. And when you hear the term "VOSE," V-O-S-E, it is describing a software package that ORAU Team uses to do the Monte Carlo calculations. It is used to take the components of dose that have distributions associated with them, normal distributions, log-normal distributions, and then it's processing them arithmetically, as dictated by IG-001 and/or the site TBDs. So it is taking care of the uncertainty, would- probably the quick bottom-line way to describe it.

Chair Kotelchuck: Very good.

(Simultaneous speaking.)

Mr. Smith: -- using a Monte Carlo method.

Chair Kotelchuck: Very good. Okay. Thank you very much.

Mr. Smith: You bet.

Chair Kotelchuck: Okay, fine. Let's go on now.

Ms. Gogliotti: And SC&A doesn't use that technique.

That's why Duane had trouble explaining it.

(Laughter.)

Mr. DeMore: Yeah, I've never used it. But, regardless, depending on the number of zeros you have, the missed doses assigned based on the LOD over two methodology, and those methodologies are all the same. So SC&A has a dose of 935 millirem compared to NIOSH's 995.

Alright. Now, missed neutron dose. Here, again, they were all based on the zeros and the doses, again, some of those similar issues. NIOSH assigned a missed neutron dose of 1.681 rem, whereas -- 1.681 approximately for all the cancers. SC&A, because they have fewer zeros, SC&A had 79 and a half zeros compared to NIOSH's 83.4. SC&A assigned only 1.612 rem to the cancers. And, again, this goes to the -- just as we said before, the VOSE methodology versus just coming up with the zeros based on the frequencies. So, again, that's the reason for SC&A being lower there.

And on page 17, under the unmonitored photon dose, there was -- they were mostly monitored, but there were periods of without monitoring during this employee's employment. NIOSH assigned an unmonitored photon dose of 1.043 rem, whereas SC&A assigned 1.042. This is basically just some dose rounding and spreadsheet working. So, effectively, those are the same doses there.

The same can be said for the unmonitored shallow dose, where both SC&A and NIOSH assigned approximately 466 millirem. SC&A was 466, NIOSH was 467. Again, this is due to rounding errors in the calculations.

Section 3.8, unmonitored neutron dose, again, very close agreement here. They were periodically

monitored for neutrons, and that's why we had the issue with the recorded doses. SC&A derived a total dose of 8.382 rem, whereas NIOSH has 8.387. And, again, they had unmonitored periods. There were varying portions of their employment where they were unmonitored there for a few of the years of their employment.

Again, this is basically rounding. But really, in this case, it's about the time that they were unmonitored. As you can see, NIOSH assumed 6.9 months of unmonitored time in a given year, whereas SC&A had 6.87, or 4.08 by NIOSH versus 4 months by SC&A. So, basically, it's just the number of significant figures and assumed months without monitoring.

3.9, occupational medical dose, again, there was -- the individual did have medical examinations. SC&A and NIOSH handled these similarly and assigned, you know, depending on the different cancers, between 20 millirem to about 300 millirem, depending. Again, there was no differences in how those doses were calculated and assigned.

Under 3.10, onsite ambient dose. Again, the onsite ambient dose was assigned in a similar fashion for both SC&A and NIOSH. It was only 32 millirem for each cancer, and that was all in agreement.

So, that's it for the external doses, really nothing too significantly different there. Just a couple minor different assumptions.

Member Beach: Matt, can I ask a question before you move on to internal?

Mr. DeMore: Yeah.

Member Beach: This is Josie. Can you hear me?

Mr. DeMore: Yes, I can.

Member Beach: Okay, sorry. So, on your Table 3.1, the zeros, the 3.2 -- for an example, in 1967, it was 3.2. I don't recall the zeros not being zeros. Does that capture, like, three months point a few days? Or how do you get the .2 or the .5 or whatever when you're looking at the zeros? I probably should know this, but --

Ms. Gogliotti: Is Ron on the line? Rocky Flats does something a little bit different --

(Telephonic interference.)

Member Beach: It did? I just didn't recall it and was curious.

Mr. Buchanan: Yeah, this is Ron. Okay. Because -- if you say that what's a minimum amount of zeros and what's a maximum amount of zeros, depending on the exchange frequency, Rocky Flats didn't always have the same exchange frequency throughout the worker's employment, or from one worker to another. And so it had the possibility of, say, like, four a year or 12 a year. And sometimes the monitoring records aren't clear on what the exchange frequency was.

So you look at the minimum and you look at the maximum, you add those two together and divide it by two. So you'll come out with a fraction of a zero. And that's kind of counterintuitive because you think, well, you either got a zero recorded in the records or you don't have a zero, and so you just count them up. Well, in some cases where there's a gray area, you don't know what the exchange frequency was. Then you do an average. And then that's why it doesn't come out a full number. Is that the question you asked?

Member Beach: Yeah, I was just curious on that. Thank you for clearing that up for me.

Mr. Buchanan: Okay. You're welcome.

Member Beach: Thanks.

Chair Kotelchuck: Thank you.

Mr. Smith: And this is Matthew Smith with the ORAU Team. And Ron ran through that just right. And the source of that guidance is in IG-001.

Chair Kotelchuck: Good. Thank you.

Member Beach: Thank you. Thanks.

Chair Kotelchuck: Okay. So, let's go on to occupational internal.

Mr. DeMore: Okay. Now we're on page 19, the internal dose. And this is when we'll get into a couple of the bigger differences that we have. So, this individual was monitored for internal dose via plutonium and uranium bioassay for different periods of their employment. They also received chest counts. All that will be important here.

But I guess one thing to say: all the internal monitoring was negative, all below the LOD for each different type of analysis. For the missed -- so, the only doses assigned were missed doses. NIOSH, for missed plutonium dose, calculated a chronic intake rate over the course of the full employment based on the LOD over two, if you will, to calculate what a potential intake was.

NIOSH looked at it. They ran it for Type M or Type S intakes. They got different values, different potential intakes, of course, whether it was Type M or Type S, and settled on assuming a Type M intake based on the associated chest count americium values of the chest counts, to make sure, because if they didn't -- they lowered the assumption from the plutonium

urinalysis results to make sure it lined up with the americium chest count results.

This resulted in Table 4.1. You can see the assumed NIOSH intake rates for the plutonium and the associated americium. And that results in a dose of approximately 200 millirem for each cancer. And that was entered into -- used in IREP.

SC&A did it a little bit differently. They used the same negative bioassay results for plutonium, and calculated the assumed intake rate, and calculated basically the same intake rate as NIOSH did. However, what SC&A did was then compared what the assumed intake rate would be based off of the chest counts, and determined that, based on the assumption of the chest count, Type S would match up between the chest count and the urinalysis.

So, as a result, SC&A shows a Type S intake for plutonium. So, you can see the intake rates that SC&A has assumed. They're very different intake rates, largely because of the different solubility types.

And then the impact there is, because of assuming the Type S, in accordance of OTIB-49, SC&A then modeled it as Type Super S plutonium. So that results in excess dose assigned after the final urinalysis results. So, the later year doses were even higher under SC&A.

So, this results in SC&A calculating approximately 700 or so millirem to each cancer site. Again, that's under 4.1.3. Comparing that to NIOSH, you can see that's where we have the biggest difference there, of four or five hundred millirem per cancer site, because of the choice to use Type S and Type Super S for SC&A compared to NIOSH using Type M. Does that make sense?

So, with that, that's the difference for plutonium. Moving on to the missed uranium intake. Under uranium, again, they had all negative bioassay results. Only missed uranium intake was assigned. NIOSH assigned an intake based over the period of the bioassay, calculated as a solubility Type M. You've got listed the intake rates for the uranium, as well as the RU intakes. So that's where you get all the associated radionuclides, and you get about 80 millirem, 77 or 80 millirem, for each of the cancers.

SC&A did almost identically the same thing. But the one subtle difference, I guess, they used the same data, the same chronic intake period. As you can see here under Table 4.4, SC&A calculated the exact same intake rate of 185 dpm per day of U-234, as well as the associated radionuclides.

One difference, though, on this is plutonium. Plutonium-239 is scaled in under the RU workbooks and RU process. NIOSH scaled that in when they calculated their dose. SC&A did not, because the thought was that the plutonium was already handled directly via the missed plutonium intake. So the plutonium was not added in under the missed uranium portion, and that results in slightly -- you know, 3 millirem or so lower uranium doses. And, again, that's just because of whether or not you assume plutonium-239 as part of the uranium dose.

Section 4.3, unmonitored tritium dose. Again, both SC&A and NIOSH did it the same way. They had a total dose of about 200 millirem to each cancer. And, again, there was no difference there on unmonitored tritium.

And that's it for internal. And then Section 5 here, there's the decision points requiring professional judgment. It's what we just talked about, and we can continue to talk if you have any other questions or

issues. But it's just the issue of how you determine -- or what inhalation class should be assumed for the missed plutonium intake, whether it should be Type M and the way that NIOSH did it, or Type S and Super S the way SC&A did it.

So we've got a little bit more of a discussion about how that came about, why there was the two differences in the end. And as a result of these cancers and everything else, it has not a significant impact on the PoC. Remember before, I think SC&A was one or just about a percent or so higher than NIOSH. But that's the results of their differences -- or caused a difference, I should say.

And that's it. So, in summary, under the summary, we have about one and a half percent difference in this combined PoC, 49.3 to 47.9. The differences are summarized by how you handle subtracting -- how you handle the doses as a result of neutron dose, what is actually subtracted out when it is below the LOD over two; and the number of zeros based on the different methodologies, how we calculate zeros; and then the assignment of plutonium intakes. And that's twofold. It's with the inhalation class -- or absorption class, I should say, and whether or not plutonium should be included with uranium when plutonium has already been assessed directly.

I think that's it for this case. What kind of questions?

Chair Kotelchuck: Okay, folks. Comments and questions?

Member Clawson: This is Brad. I don't have any.

Mr. Siebert: This is Scott. If you'd like me to, I can go over the plutonium difference.

Chair Kotelchuck: Yes, that would be nice.

Mr. Siebert: Yeah, happy to do it.

Duane, it's great to hear your voice. I haven't heard you for years. Good to hear you.

Mr. DeMore: Yeah, nice to hear you, Scott.

(Laughter.)

Mr. Siebert: Yeah, the plutonium-239, and the whole plutonium intake issue, as Duane was mentioning, we ruled it out based on the fact that if you get a Type S slow intake based on urine and project it out to the chest count, actually, it overpredicts the chest count values. You need to -- and I did check that, actually, pretty specifically, because in our submitted version, the Type S intake that we use to look to see if it was overpredicted actually is identical to what SC&A assigned.

So, the intake was done correctly. But when you project it out to americium-241 in the lung, including the ingrowth from plutonium-241, actually it ends up overpredicting what you would see in the -- what we didn't see in the chest count. The chest count was negative. It would have been positive.

And the extension from that is, with Super S, that actually would have even more in the lung if you're starting from urine. So both of those would be ruled out by the fact that the chest count doesn't show any americium positive. So that's the difference.

Chair Kotelchuck: Right. And that's helpful. Both are based on the measurements of chest count and urinalysis and the way you handle those. Okay. Sounds good to me. That helps my understanding. Any other comments or concerns?

Not hearing any, should we consider this approved?

Member Clawson: This is Brad. Yes.

Chair Kotelchuck: Good.

Member Beach: And I agree with that also.

Chair Kotelchuck: Okay.

Member Valerio: This is Loretta. I agree.

Member Lockey: Lockey. I agree.

Chair Kotelchuck: Good, good. Okay. And that was Loretta and Jim.

Alright. Is David on the phone? David, are you on the phone? David Richardson.

I don't hear you, and you were not on the roll call before. So I think you have -- then I think we will say it's unanimous, except for David's vote.

And, Rashaun, you will poll him later, I guess. In the Subcommittee like this --

Dr. Roberts: Sure.

Chair Kotelchuck: Okay.

Ms. Gogliotti: We have a quorum, so I don't know that his vote is --

Chair Kotelchuck: Actually -- that actually leads to my question. If this was a vote of the Board, she would certainly have to call anybody who misses a Board vote. Since it's a Subcommittee issue, say, I think actually the Subcommittee vote, as long as a quorum is present, is done and we don't have to check it.

Member Clawson: This is Brad. I agree with you, David, on that. We don't need to go for his vote. We

may let him know we voted on that, but that's just a preference of ours to make sure everybody understands what we've done. But I don't think we need his vote.

Chair Kotelchuck: Okay. I think you're right. I think we're in agreement on this, then. So, the vote is unanimous that we approve. And that finishes the blinds for us.

Now we have some remaining in-progress cases. And, Rose, I don't know if there's anything updated on them. Do you want to go over them, the Monticello, the --

Ms. Gogliotti: Yes, I would be happy to go over it. Before we close out the blinds, do you want us to update the summary table for the blinds to reflect these three cases?

Chair Kotelchuck: Oh, yes, absolutely. The decisions are made, yes, by all means, the table that you made, sure.

Ms. Gogliotti: We will certainly do that.

Chair Kotelchuck: Okay. And we'll come to the professional judgment tracking a little later after we finish the in-progress cases, or finish what we can.

Ms. Gogliotti: Yes. But we only have four issues that I think are at a point where we should talk about them. So, we'll just go through those.

Chair Kotelchuck: Okay.

Ms. Gogliotti: And those are the cases that are -- they correspond with the agenda.

Chair Kotelchuck: Okay.

Ms. Gogliotti: The first one is from the 14th or 18th

AWE grouping, and that's Tab 432. And this is Finding 4.

Chair Kotelchuck: Okay, good.

Ms. Gogliotti: I'll get to it here.

Chair Kotelchuck: Thank you.

Member Clawson: Hey, Rose. Let me ask you a question real quick, because is anybody else on the Board having trouble getting into the Board Review System? They've sent out some stuff to me. I've had a heck of a time trying to find it in there. I was wondering if anybody else is having any trouble finding it.

Member Beach: Sorry, Brad. No, I found it.

Member Clawson: Did you?

Member Beach: Yeah.

Ms. Gogliotti: I can call after and I'll help you get on. But do you have access to this link?

Member Clawson: Yes, I do. I get into that, but I'm just having a hard time finding it after I get into it because I can't go back and pull up a number that they gave me. So I'm typing in the information. I'll get together with you one of these days and have you go through it with me. I appreciate it. I was just watching how yours was lined up, and that's not how mine comes up.

(Laughter.)

Ms. Gogliotti: Absolutely. I can help you with that. Not a problem.

Member Clawson: Okay. Thank you.

Ms. Gogliotti: Okay. This one dates back quite a ways. It's a uranium mill in Monticello case. And what happened with this one, way back when, was we were unable to match NIOSH's dose correction factor values for exposure to radon.

And we brought this to the Board's attention. NIOSH agreed that it should be better documented. And they indicated that they intended to update the documentation either as part of an update to TIB-11 or as a standalone document. Later on, they decided it was going to be in TIB-11 and they were revising it. But it hadn't been revised yet, and that's kind of where we left things.

It has since been issued. Rev. 5 of TIB-11 was issued in 2018, and we did confirm that that revision does address radon dose correction factors. And we compared those to the ones that were used in the dose reconstruction of our revision. There were some very small differences. I believe they were rounding errors. But, more or less, they were the same. And, of course, it doesn't impact the compensation decision. So we recommend closing the finding.

Chair Kotelchuck: Very good. Well, glad to hear progress. That's really an old one. So, sounds like this is something we should approve. I would agree. How do other folks feel? Approve?

Member Clawson: This is Brad. I agree.

Member Beach: This is Josie. I also agree with that.

Member Lockey: Jim Lockey, I agree.

Member Valerio: Loretta, I agree.

Chair Kotelchuck: Okay. I agree. And that is approved. Okay, good.

Ms. Gogliotti: It's nice to get some of these really old ones off of our --

Chair Kotelchuck: Oh, it certainly is.

Ms. Gogliotti: The next ones are in Sets 19 through 21. And these are in the AWE site cases matrix. Give it a second to pull up. Sometimes it takes a little while.

Chair Kotelchuck: Sure.

Ms. Gogliotti: Okay. And the first one is a GE Vallecitos case, and this is Tab 473.2.

Okay. This one we questioned if onsite ambient dose was being calculated appropriately. This review NIOSH originally completed back in 2013. And so we had some questions when we did our review about whether or not natural background was being included with the ambient dose calculations. Of course, typically, according to the PROC-60, those would be removed because natural background is different than the ambient dose that we're considering.

Since this case was done, NIOSH has completely reworked the way that they do ambient dose at GE Vallecitos. So, assigning is kind of an artifact in a way, not really worth talking about beyond that. NIOSH did agree with us that the inclusion of identified natural background was inappropriate. At least, it would be inappropriately unless you were overestimating the dose.

This is kind of where I don't understand their comment, and maybe Scott can elaborate. They said that this claim wasn't impacted by this decision. And when we look at it, we see that it clearly was. So, maybe, Scott, you can elaborate.

Mr. Siebert: Let's see here. The natural background impact discussion only impacted post-1965 ambient. Prior to '65, actually, there was no background to strip out until '65, if I remember correctly. This claim only had ambient in '59 and '60, prior to the time where you would strip it out. So --

Ms. Gogliotti: Well, that's where we were confused, because the case actually had ambient dose assigned in '59 and '60, but also '79 through '80 and '83 to '94.

Mr. Siebert: And that could be my mistake.

Ms. Gogliotti: In any event, the current method does decrease ambient dose for all years except the chunk of time between '67 and '85, based on our preliminary research of what's being done currently. But this case is no longer impacted by this, or cases done in the future are not impacted by this.

Chair Kotelchuck: So, do both of you agree on that?

Mr. Sharfi: This is Mutty Sharfi. I can explain the post-'65 thing. In this particular claim, the employee actually has dosimetric records for the later time period, but they're summary data. So that was used to cover exposures post '65. The only thing that they were unmonitored for was in '59 and '60. Therefore, the onsite ambient was used just for those two years.

Ms. Gogliotti: I think that we -- maybe I'll have to take a second look at this. But, at least the case that we reviewed -- and I don't know if this case has since been updated -- we had identified that ambient dose was being assigned in those later years also.

Mr. Siebert: In the methodology that's part of these include-all AWE DRs, it does include the tables that have the dose from all years. But when you read into the print, the record actually provided a summary

dose from 1961 to end of year of a total dose assigned through all his dosimetry. They didn't give individual dosimetry, but they gave a total dose. So, the individual was monitored post-1960. And so that monitoring record was used to cover his exposure post-1960, but he started employment prior to 1961. And, therefore, ambient was used just to cover those two years.

Ms. Gogliotti: I think there's some confusion about this, so maybe we should --

Chair Kotelchuck: Is that something you should talk about?

Ms. Gogliotti: I'm pretty confident when I looked at this in IREP there was ambient dose assigned for those later years. So, either they were labeled incorrectly or we're talking past each other.

Chair Kotelchuck: Okay. Well, it seems to me you folks should talk and then bring it back. And it sounds like you will come to an agreement.

Mr. Siebert: Well, this is Scott.

Chair Kotelchuck: Yeah.

Mr. Siebert: Honestly, regardless, one way or the other, I think we all agree that it's been updated. So I don't necessarily think there's a need to continue holding this out.

Chair Kotelchuck: Except --

Ms. Gogliotti: I think that's a good point, Scott. At the end of the day, this is no longer impacting cases, which is our goal.

Chair Kotelchuck: That's certainly true. The issue is whether this was -- we were reviewing this case and

whether this was correct or not. So, whether this was correct or not, it is no longer a problem.

Ms. Gogliotti: Yes. And, actually, the current method does decrease ambient dose for a significant length of time.

Chair Kotelchuck: Right.

Ms. Gogliotti: So it would actually decrease the dose if the case --

Chair Kotelchuck: Yeah. So, I don't know, what do other folks think on the Subcommittee? Should we just approve because it's no longer an issue? Or should we make sure that this one is nailed down between the two of them and then approve it?

Member Clawson: Well, Dave, this is Brad. It's appearing to me that there's been an issue, so they've corrected the issue. My only question is, will this affect this case, is the only thing I'm --

Chair Kotelchuck: That's right. That's correct.

Member Clawson: That's the only thing that I'm hesitant about. I see that we've corrected and everything else like that, but have we corrected this case.

Chair Kotelchuck: That's exactly the issue.

Ms. Gogliotti: Well, with this case, if it were to be reworked, I think that we're saying that the dose would go down.

Member Clawson: Okay.

Chair Kotelchuck: Yeah, that's true.

And you're in agreement, though, on that?

Ms. Gogliotti: Yes.

Chair Kotelchuck: Yeah. Okay.

Member Clawson: Okay, then I don't have a problem with closing it.

Chair Kotelchuck: Nor do I. Anybody have any --

Member Lockey: Doesn't affect the case, so I'd close it.

Chair Kotelchuck: Okay. Approved.

Ms. Gogliotti: Okay, great.

Member Valerio: This is Loretta. I agree to close the case.

Chair Kotelchuck: Okay, good, good. Sorry, I was premature. And, Josie, I didn't hear from you, but I assume you approve.

Member Beach: That's okay. When you said you closed it I was going to agree also.

Chair Kotelchuck: Right.

Member Beach: So that's fine.

Member Richardson: This is David Richardson. I'm on the phone as well. Thanks.

Chair Kotelchuck: David. Okay, great. You should know that we approved the B-42 Rocky Flats unanimously. And so that's taken care of, as well. Okay, good. Glad you're back. Now let's see.

So, let's go back to the in-progress. It's there anything on Texas City Chemicals?

Ms. Gogliotti: Actually, we have one more on this case.

Chair Kotelchuck: Oh, very good. Okay.

Ms. Gogliotti: Same case, GE Vallecitos. This is from, again, Tab 573 and this is Finding 3. And with this one we initially had problems replicating the recorded photon dose that was assigned. And when the dose reconstructor initially did this case -- this was, again, a fairly old case -- it appeared that more records were being used than we had available to us. So we've requested those records, and we had a little back and forth, and NIOSH did give us the records.

And I completely know what happened now. They directed us to a page in a document that we already had. And when I went back and looked at it, I see what they did. It's a little bit different than what we normally see, and I think that the reviewer was confused in this case. This was one of the first Weibull cases that we saw where the doses in IREP don't necessarily all match because of the way uncertainty is handled with that distribution.

And so it looked like they were assigning doses based on individual or annual dosimeters, when really what they did was they took the lifetime dose estimates that were reported at several time periods in the EE's career and subtracted out various parameters, and then averaged that over the yearly span, which, for recorded doses, is absolutely a claimant-favorable approach. And we have no problems with that. I completely understand what they did with the new information or with the information that they provided us.

For missed dose, it kind of ignores the impacts of missed dose. But this case was compensated, so it is a reasonable efficiency measure. So, based on that, we recommend closure.

Chair Kotelchuck: Okay. That sounds good,

recommending closure. Are there any objections or concerns?

Member Beach: None here.

Mr. Calhoun: This is Grady. Would that no longer be a finding, then?

Chair Kotelchuck: Well, let's just finish the Subcommittee and then we'll come back to that. So, folks, no objections from the Subcommittee Members, right?

(Simultaneous speaking.)

Member Clawson: Correct.

Chair Kotelchuck: Okay, fine. Then let's go back to Grady. Is this a finding?

Member Clawson: So, Grady, you're saying -- this is Brad. You're saying that this was found as a finding when we were going through it. Is that correct?

Mr. Calhoun: It sounded to me it was listed as a finding, and I think it might just be an observation since they realized what was done. But it took a while. Maybe I'm wrong there. I'll defer to Scott, but --

Chair Kotelchuck: No, I think you are. I mean, it was there. They came to understand what you had done and agreed that was appropriate. So, that would normally be an observation. So, I would be open to changing from finding to observation. Rose?

Ms. Gogliotti: I'm not going to disagree with that.

Chair Kotelchuck: Okay. Then let's say it's an observation, unless I hear disagreement from Board Members.

I do not. So it is now an -- it's approved as an observation. Good, making progress. Now Texas City Chemicals?

Ms. Gogliotti: Yeah, last one, which is Tab 442. Last one here, and this is Observation 2. And what happened with this one was initially we had trouble replicating the inhalation rate for uranium that was used in the case. NIOSH responded essentially saying that when they looked at how we calculated intake rate, we did it a little differently than them.

They were, in fact, using a 2,500-hour per year work year, as well as a 365-day calendar year, as opposed to a shortened calendar based on work days. And we understood what they did, but we had some remaining concerns at the time. We understood the rationale and why they were doing the doses the way that they did, and it has to do with how IMBA and the chronic annual dose workbook handles doses.

But we had some remaining concerns regarding the method. We felt that it might lead to an accidental dose dilution, as well as an inconsistent application between sites. And NIOSH responded, essentially saying that the way that the information is presented in the workbooks or in the guidance documents, they don't have to make any changes, dose reconstructors, so that they felt that this would lead to less consistency issues.

And we just have some remaining questions, I guess, regarding documentation for NIOSH, just to make sure that, is there internal guidance that specifies how this should be handled to ensure consistency in guidance, as well as application throughout the program?

Chair Kotelchuck: Okay.

Mr. Allen: This is Dave Allen. That sounds like a, you

know, what you'd call a systemwide comment, then, right, or program-wide comment is what it amounts to?

Ms. Gogliotti: Potentially.

Mr. Allen: It's not really for this particular case?

Ms. Gogliotti: Well, programmatically, yes. We're just curious. I was looking, trying to find guidance that specifically said that all NIOSH guidance documents do this, and I couldn't find it. And it doesn't mean it doesn't exist. If you can point me to somewhere or maybe bring up how this is handled, that'd be great. I just can't find anything.

Mr. Allen: Yeah, there's really no guidance that says this. The TBDs and stuff themselves generally say how we calculated. And sometimes it footnoted saying it's on a calendar day basis. Sometimes it just says per day.

The SC&A report itself, when it reproduced the table out of the Texas City Chemical Evaluation Report, said essentially it's a calendar basis, a 365-day calendar day basis. There's a footnote toward the table that you recreated, even though that footnote was not in the ER. So, the ER was plain enough. It had enough text in it to say that they could determine that it was a calendar day basis, which was what we were using to do this dose reconstruction. I can't remember what else I was going to say here.

(Simultaneous speaking.)

Chair Kotelchuck: Go ahead.

Mr. Allen: Go ahead. I'm sorry.

Chair Kotelchuck: No, no. Do go ahead.

Mr. Allen: I was going to say, since the time that this dose reconstruction was done, we've created a TBD for Texas City Chemicals. And the current revision, I guess Rev. 1, it has this table in it. And underneath it says a footnote that it's on a per calendar day basis.

That's about as good as I think we can do. I mean, this is an issue that sounds like it is simple. But, in all honestly, when you dig into it, you find out that people -- if you say per calendar day or per work day, people still don't know what you're talking about. All they know is it says per day. And when they go to punch something into IMBA or into CADW or any other internal dose software, they're going to put that number in because it says per day, without considering whether it's work day or calendar day. And if they do that and we put it in there as a calendar day basis, like we do, it'll still be right.

If we do it on a per workday basis, I can absolutely guarantee you it will mess up a lot of different dose reconstructions. So there's really no way I intend to do that in the future. It's going to be on -- it's definitely going to be on a calendar day basis, is what it's going to be listed in the TBDs.

Ms. Gogliotti: And that's consistently done throughout the program? And there's no internal guidance that says that's the way it should be, everyone just knows. Is that how I'm interpreting that?

Mr. Allen: Yeah, I believe so. In fact, the only time I've seen this become an issue was during SC&A reviews. And this is about the third time it's shown up, but only about the third time. Any other time it's listed, people just realize what it is.

Chair Kotelchuck: "People" meaning the dose reconstructor?

Mr. Allen: Dose reconstructors, as well as SC&A reviewers. There's been plenty of AWE reviews that they've done. They're run through IMBA. They've had no problem with it just saying per day. There's only been two or three, I think. I might be wrong, but I think two or three different reviews and different Work Groups that have raised this issue.

Chair Kotelchuck: Well --

(Simultaneous speaking.)

Member Beach: It seems like if other Work Groups have mentioned this, there should be some kind of tracking of it, shouldn't there, somewhere?

Mr. Allen: It is. But trying to find that is -- it's tough, because some of it, I think, might be this Subcommittee. It was DR Subcommittee and you've got to go through each and every case in the past.

Member Beach: Right.

Mr. Allen: But, I mean, it's always come out the same way that -- I don't think anybody has argued it as much as with this case before. It's always been, we can't reproduce, and we say, well, it's on a calendar day basis. Oh, okay, we got it. And close the finding.

Chair Kotelchuck: Well, you are going to put it into -- you have put it into Texas City Chemicals.

Mr. Allen: We put a footnote to the table. We put a footnote on that table, and there's a number of other TBDs who have that footnote. I can't guarantee all of them do. I can pretty much guarantee some of them don't.

But, I mean, like I said, even saying it's on a calendar day basis doesn't guarantee you it's going to be realized by the dose reconstructor. And if you look at

page 18 of the SC&A review for this particular case, you will see they did a calculation using eight hours per day and then called it a calendar day basis, even though calendar day would be seven days per week. So even they -- I mean, they messed this up even realizing that there's a difference.

Chair Kotelchuck: Well, that sounds like an issue about instruction of dose reconstructors.

Mr. Allen: Well --

(Simultaneous speaking.)

Chair Kotelchuck: And you say, well, they don't understand it, whereas it does seem to me clear calendar day versus workday. I don't know. I know the difference, and I would expect that most people do. I'm a little bit ---

Ms. Gogliotti: I think what happens is when you're hearing per calendar day so then you're converting it into a workday, because there's the assumption that you're not working on weekends. I think that that's a reasonable interpretation of that.

(Simultaneous speaking.)

Ms. Gogliotti: And I understand what you're doing, and I'm not saying that's wrong. But I think that's what happened here.

Mr. Allen: Rose?

Ms. Gogliotti: Yes.

Mr. Allen: Can you do me a favor, Rose, and call up the first finding for Texas City Chemicals? It has this review, a link for this review. And if you call that up and go to page 18.

Chair Kotelchuck: It's there.

Mr. Allen: Well, that's where this comment comes from. I can show you what I'm talking about, that it seems clear to me -- it always has, but I'm kind of biased that way; I've done this quite a bit.

Chair Kotelchuck: Yeah, I think you have.

Mr. Allen: But for others -- let's see. I can show you exactly what I'm talking about here in a second. Okay. Yeah, this is page 18. The table you see here comes from Table 7.3 of the Evaluation Report, and that is what we were using to do dose reconstructions at the time this that this DR was done.

In the Evaluation Report, there is text describing what we did, how we came up with this table, but there is no footnotes to it. If you look at this table, you see an asterisks that says the values are normalized at a 365-day calendar year. So, somebody realized it makes a difference and put that footnote in here, the author of this report from SC&A.

Chair Kotelchuck: Well, very good.

Mr. Allen: If you go down a little -- okay. But if you go down further, then you see the calculation that says eight hours per day as part of that calculation. And they come up with 46 picocuries per day. Right underneath it, the sentence says, it is unclear why we derive 46 picocuries per calendar day.

So the author of this report is writing calendar day and per day and still mixing it up. So it's not like they just ignored it and just forgot about there being a difference. It still got mixed up here. If they put calendar day when, in reality, they're using eight hours per day, it's clearly not a calendar day.

So if we were to put a footnote on all of our tables, it wouldn't make as much of a -- it's not going to make a difference for everybody. There's still going to be

mistakes.

Ms. Gogliotti: I agree. I agree. I was just asking if there was an overall guidance document to make sure that in every single TBD or Site Profile document that gets attached instead of a Site Profile that it's all done consistently there so that dose reconstructors know that it's consistent across the program. That was my --

(Simultaneous speaking.)

Mr. Allen: There's not, and it's written into most TBDs as far as the derivation of the numbers. And the main reason there's not, and I hesitate to say it's got to be a complex, wide, definitive thing as some of these AWEs we deal with are a one-week or a three-day thing. And you want to be careful about saying it's a per calendar day basis even though they would probably put it over a three-day chronic intake on a calendar day basis. Yeah, that would be true.

But that is where we ended up really confusing people, saying calendar day, work day when it was only, like, a one-week or one-month operation. It got things messed up. So it's usually best just to describe it all and to realize putting this in the top of a table on a header is really not going to solve much of anything. It's still going to confuse people if they think about it. It is, flat out, just not as clear as it seems like it should be.

Chair Kotelchuck: Well, we certainly have it cleared up for Texas Chemical -- Texas City Chemical.

Ms. Gogliotti: Yes.

Chair Kotelchuck: It's just that -- and I would say it seems a reasonable observation for SC&A to say, why can't we do this consistently? We've gotten a -- we had a discussion from NIOSH saying it's not as easy

as you think which, okay, I respect. So I think we should just simply approve Texas City Chemical as it's an observation and approve it and go on because -- unless people -- other -- maybe other Board Members could say. Do they think this is important enough that despite the problems that somehow this should be put in and further clarified?

Mr. Allen: I have to say the conversation has left me less clear about the language than -- I don't think it's been clarified.

Chair Kotelchuck: Yeah, I would agree.

Member Richardson: I would agree with Dave. It left me less clear of what's going on.

Ms. Behling: This is Kathy Behling. Can I ask a question?

Chair Kotelchuck: Surely.

Ms. Behling: Not to add -- yeah, not to add confusion to this. But David, would something like TIB-5000 would be appropriate place to put this type of information? Or am I completely missing the point here?

Ms. Gogliotti: That only applies to AWE facilities, I believe.

Ms. Behling: Yes, okay.

Chair Kotelchuck: I don't know. I can't answer your question. And I think --

Ms. Behling: That is -- it is --

Chair Kotelchuck: -- you're talking --

Ms. Behling: -- for AWEs, yes.

Chair Kotelchuck: Yes.

Ms. Behling: And I thought that we were worried about the AWEs because they're not -- they don't always have Site Profiles associated with them. But perhaps that's not the appropriate --

Chair Kotelchuck: Yeah.

Ms. Gogliotti: No, I understand what you're saying. That's not a bad idea, to be honest. But I know that that document hasn't been revised since, I want to say, 2007 or so.

Ms. Behling: Right. In fact, we're considering reviewing this in the Procedures Subcommittee. And so this might be an area where you could reduce this type of guidance.

Chair Kotelchuck: Could it --

(Simultaneous speaking.)

Chair Kotelchuck: Go ahead.

Mr. Allen: I'm sorry. This is Dave Allen. I really don't think 5000 would be the best place to put it. If we had to make the program guidance, I would put it somewhere else. But I can come up with some other place. But it wouldn't be 5000, I don't believe.

Chair Kotelchuck: Let me suggest that maybe the SC&A folks and NIOSH folks talk a little bit. I'm inclined to approve for Texas City Chemicals 442. But if you folks would talk and then could SC&A put those results in some consistent way of putting it in. And the fact that it is confusing to us -- to some of us, maybe all of us, that we just simply ask for technical discussions and report back next time to see if there is a way to think through a little further.

Ms. Gogliotti: Well, I'm not sure that we would come to a solution necessarily because SC&A --

Chair Kotelchuck: That you'll talk for a long time about it, right?

Ms. Gogliotti: Well, we're aware of this issue.

Chair Kotelchuck: I respect that. No, no. I mean, you're saying we've talked it out. So --

Mr. Allen: Well, SC&A, I mean, do you have proposed language? It's my understanding that you're asking for sort of just an explicit statement of an assumption of a standard for hours worked per day, days worked per year, and becomes a glossary and a language for what those assumptions are and how those words are used.

Ms. Gogliotti: Yes, essentially. I know that this created a problem, at least with the application of ingestion doses in the past.

Chair Kotelchuck: Yeah.

Mr. Siebert: Yeah, I mean, there's certainly a lot of occupational settings where these are important issues and assumptions. And to kind of standardize the language to just make them express it is helpful and not have to reinvent it each time.

Mr. Allen: Yeah, I agree with that.

Chair Kotelchuck: It would be, yes. I'm waiting for --

Mr. Allen: Well, this is Dave.

Chair Kotelchuck: -- suggestions how to proceed from other --

Mr. Allen: This is Dave Allen.

Chair Kotelchuck: -- Subcommittee --

Mr. Allen: One last -- I want to make one last little --

Chair Kotelchuck: Sure.

Mr. Allen: -- I don't know -- jab at this is that you could see in that table by the footnote that's been created that they understood it was a calendar day basis and then turned around and used it wrong and called it a calendar day basis. So I don't believe this is a verbiage issue. I believe it's just a simple mistake. And a simple mistake --

(Simultaneous speaking.)

Mr. Allen: -- happen with SC&A, not with the dose reconstructions.

Mr. Siebert: But the place you're --

Mr. Allen: I really have heartburn on --

(Simultaneous speaking.)

Mr. Allen: -- changing the program based on (telephonic interference) having problems.

Mr. Siebert: The place you're contending that they made a mistake is by equating 8 hours per day to a work day, not to a calendar day. Am I right?

Mr. Allen: No, no, no, no, no.

Mr. Siebert: And that's what you think --

(Simultaneous speaking.)

Mr. Allen: They called a calendar year on the footnote for the table, and then they used -- this is their own -- that's not in the TBD. That's not in the ER. They

used this calculation with 8 hours and called it --

Mr. Siebert: Exactly.

Mr. Allen: -- a calendar day basis.

Mr. Siebert: And now this is what I'm saying.

Mr. Allen: They called it a calendar day basis.

Mr. Siebert: No -- yes, exactly. What I'm saying you're saying because they say 8 hours, it's not a calendar day.

Mr. Allen: Correct, 8 hours --

Mr. Siebert: That was a mistake.

Mr. Allen: More than likely, 8 hours would be a work day, five 8-hour days, you do 40 hours. Unfortunately, in those cases --

Mr. Siebert: But those two -- right, those two things don't -- that's just where there's a lack of clear mapping between these concepts. And I'm saying now you've made an assumption about what they think or -- but I think this --

Mr. Allen: No.

Mr. Siebert: -- could be clarified.

Mr. Allen: No, I don't think I made an assumption at all. They wrote 46 calendar days -- or 46 picocuries per calendar day. I didn't --

(Simultaneous speaking.)

Mr. Siebert: Yes, and they said 8 hours, and you're saying that that's impossible.

Mr. Allen: Well, that would have to be 8 hours per calendar day to get 46 for seven days.

Mr. Siebert: Yes, right.

Mr. Allen: Meanwhile --

(Simultaneous speaking.)

Mr. Allen: -- 8 hours per work day.

Mr. Siebert: Is that a mistake, or were they explicit about the assumptions there and they made a calculation under those assumptions?

Mr. Allen: Are you saying they're assuming 8 hours seven days a week?

Mr. Siebert: I believe that's what they said and what they calculated.

Mr. Allen: Okay. So they assumed 8 hours seven days a week, came up with a number different than ours, and said we need to explain why they --

Ms. Gogliotti: Which has been addressed.

Mr. Siebert: I think it's --

Ms. Gogliotti: We've addressed that point. We're now talking about documentation as an overall programmatic issue. We understood what happened there. We agreed.

Chair Kotelchuck: On such a basic point as this, there ought to be clarity. I don't even find it persuasive to say that our consultants calculated wrong and Members of the Subcommittee are saying, we're confused. So it certainly is not resolved and understanding is not resolved among all of us.

And for something as basic as how many hours a day the exposure is, is pretty basic. I mean, which is to say there ought to be clarity. I don't know how to proceed, I mean, in terms of Rose simply said, look,

we've talked it back and forth a lot. And obviously, you're not in agreement.

So I guess if you're not in agreement, unless you want to have further discussions, then I think it's in the hands of the Subcommittee. And the Subcommittee folks here should decide. This has been hanging around a long time.

Ms. Gogliotti: Let me just clarify. I understood what happened in this case. I think SC&A would love it if there was some kind of programmatic guidance somewhere, whether it's a standalone document, a 5000 or wherever else, somewhere that says this is the way it's done so the two eliminate ambiguity in the future.

Chair Kotelchuck: I have an idea. How about we transfer over to the Procedures Committee as we're talking about the larger overview, right, of this entire dose reconstruction process, right?

(Simultaneous speaking.)

Mr. Calhoun: This is Grady, and we could do that. But what we got to think about here is that it seems to me that SC&A and DCAS agree on this individual case.

Chair Kotelchuck: Yes, they do.

Mr. Calhoun: It's also been brought to light that we're working on CBDs that come around that we clarify this and those. It seems to me that our dose reconstructors know what they're supposed to be doing on a case-by-case basis. And it also seems to me that an overarching this is the way we do all cases isn't going to work offsite.

So doing it on a site-by-site basis and trying to include it in the TBDs as they get and if they get

developed seems like the best approach to me. And this case here is done. I mean, I think everybody --

Chair Kotelchuck: Right.

Mr. Calhoun: -- agrees that it was done correctly.

Chair Kotelchuck: Yes.

Mr. Calhoun: So I just can see us trying to do more work to make it clear for reviewers. If it's clear to our dose reconstructors, that's our goal. But if you want to punt it over to the procedures Work Group, I mean, that's fine. But it would just be a discussion with no predetermined outcome.

Chair Kotelchuck: Right. Well --

Member Beach: And this is Josie, Dave. I mean, we could take that on. But maybe Rose, are you -- I know we're satisfied with closing this Texas City Chemical.

Is there more work that we should consider possibly in a memo form to us and NIOSH, something you're looking for? Or is SC&A satisfied? I know this is a complex issue.

Ms. Gogliotti: I think that -- I guess we're satisfied. We'd like to see the documentation obviously. If NIOSH doesn't want to do that, that's kind of not our place to say. We only advise. So --

Chair Kotelchuck: Right.

Ms. Gogliotti: -- I don't know that more would come out of doing a memo.

Member Beach: I guess the memo would just keep maybe tracking down more --

Ms. Gogliotti: Tracking this discussion --

(Simultaneous speaking.)

Member Beach: -- issues where it has occurred. What's that?

Ms. Gogliotti: Just tracking as it happened. Is that what you're looking for more?

Member Beach: That's exactly what I was just saying at the same time you were. Yeah, just tracking where -- and trying to get a handle on if this really is an issue or just isolated here. And I guess that's up to the other Subcommittee Members.

Chair Kotelchuck: I'm persuaded by what Grady said. And I think I would just argue we should just approve Texas City Chemicals as an observation and leave it at that. Would others agree?

Member Clawson: This is Brad. I agree with that. This is a lot more complex and it comes out in a lot of different things. But we're looking at this case, and let's deal with this case. If this comes up again, maybe we may need some guidance. But let's just take care of this case and go from there.

Chair Kotelchuck: Sounds good to me. What about others -- other folks?

Member Valerio: I agree with Brad too. This is Loretta. I agree with what Brad just said.

Chair Kotelchuck: Okay.

Member Beach: I agree also.

Chair Kotelchuck: Okay, Josie. Good. David Richardson?

Dave, are you on mute?

I guess I've heard from everybody but Dave. No, Jim

Lockey also I haven't heard from.

Member Lockey: No, I agree in this case we can move on. But I'm still confused by -- I mean, I was just sitting here trying to figure out how you calculate 2,500 hours -- work hours. David Allen, how did you get to 2,500 work per year? Where does that come from?

Mr. Allen: The 2,500-hour per year was an assumption, and that was another point I was trying to make out there. It was never going to be 8 hours for work day or calendar day or any basis at all. It's just a simple mistake in the review. The 2,500 was the assumption, and the way we got the 39 picocuries per calendar day was 2,500 hours divided by 365 days.

Ms. Gogliotti: So the 2,500 hours comes from ambient dose. That's the assumption that we use for best estimate cases. It assumes a 40-hour -- or a 50-hour work week, 40 weeks out of the year.

Member Lockey: So it's an assumption on a 50-hour work week, right?

Ms. Gogliotti: Yes.

Member Lockey: Okay.

Chair Kotelchuck: All right.

Member Lockey: So it would be nice to have a map as David suggested just so -- because I can see how this would get confused -- people can get confused from this.

Chair Kotelchuck: Yeah.

Member Lockey: But in this particular case, I would say close it and move on.

Chair Kotelchuck: Yeah. David Richardson, we haven't heard from you.

Dr. Roberts: He may be off the call.

Chair Kotelchuck: Pardon?

Member Lockey: Off the call.

Dr. Roberts: He may be -- yeah, he may be off the call.

Chair Kotelchuck: Yeah, yeah. Well, then I think we have agreement, not happiness but an agreement. And it's been going on long enough. So I would say that we have approved this Texas City Chemicals, the observation. And we'll keep an eye on it, folks, as these things develop and if it ever comes up again.

So we've gone over a little bit from the time that we had thought we might finish. But unless there's some problem, I'd like to go on to the last item on the agenda which is looking at the professional judgment tracking. And Rose has put together a letter and a very nice table, or at least I think it's a nice table.

And we want to show it to you and talk about it, let folks look it over, the Subcommittee folks look it over and the staff online and see what you think. So could we -- unless there's some objection, I'd like to open up that Excel file. Or Rose, how do you want to handle it?

Ms. Gogliotti: I'll just introduce it if that's all right.

Chair Kotelchuck: Fine.

Ms. Gogliotti: Way back in September of 2018, this idea of tracking decision points requiring professional judgment in cases came up. And during that Work Group meeting, it was decided that they wanted

SC&A to start including the decision points for acquiring professional judgment section in our blind comparison reports. And you've seen that done now in Set 26 and 28.

Then at the May 2019 Subcommittee, a dose construction meeting -- so different group now but the group that we're in, I guess, now -- you requested a way of tracking those items that came up. And you tasked SC&A with putting together a strawman type tracking matrix as a way of potentially tracking these issues. So we did that.

And then at the November meeting, you asked us to put together a proposed tracking matrix memo that documents what was actually in the Excel file. And so that's what you see on your screen now. These are just suggestions of things that we thought would be helpful to track.

If you hate it, that's fine. It's a strawman. We're willing to change whatever. We've only tentatively done this on the 26 set. If you like it, we'll go ahead and make sure that the 26 set is perfect and then also update the 28 set.

But we did this just as a way of potentially tracking the issues. And if something is important to you that we might've missed, we can certainly add that in at this point in time. I'll just pull up --

Chair Kotelchuck: Right.

Ms. Gogliotti: -- the matrix.

Chair Kotelchuck: Yeah, because that's not on our screen.

Ms. Gogliotti: Okay. So the first column you'll see is the set. That'll obviously --

Chair Kotelchuck: By the way --

Ms. Gogliotti: -- be improved.

Chair Kotelchuck: -- I don't see it on my screen, the --

Ms. Gogliotti: That's what I'm currently --

Chair Kotelchuck: -- Excel file.

Ms. Gogliotti: -- sharing. Can anyone --

Member Valerio: Here it is. It just popped up, Dave.

Chair Kotelchuck: Okay. Well --

Ms. Gogliotti: Sorry.

Chair Kotelchuck: -- I have it on my CVC machine. So that's fine.

(Simultaneous speaking.)

Chair Kotelchuck: If other --

Ms. Gogliotti: -- when I do it --

Chair Kotelchuck: Oh, all right.

Ms. Gogliotti: -- versus when you see it. But it sounds like someone can see it at least.

(Simultaneous speaking.)

Member Clawson: I can see it, Rose. Mine keeps freezing up. I've had to reconnect almost 10 or 12 times, but --

Chair Kotelchuck: Oh, my.

(Simultaneous speaking.)

Member Clawson: So that might be what it is. But

mine's good. I can see it.

(Simultaneous speaking.)

Chair Kotelchuck: Fine. Let's put it this way. Is there anybody who can't see it or who doesn't have it?

Member Beach: Dave, this is Josie. I don't have it. My -- I keep getting booted out of Skype. But I do have the memo in front of me, so I'm good there.

Chair Kotelchuck: Good. Then let's -- then we all have it. Let's go ahead. Take a look at it. And I'd be interested -- I've already looked it over with -- Rose showed it to me before we put it out here. And it seems to me quite a nice table. It encompasses a lot of useable information.

I will -- I have one thing to suggest. But before I do it, I'd like to hear what other Subcommittee Members think of it and also any of the staff who are looking. If you would like to comment to help the Subcommittee, that would be most appropriate.

Ms. Gogliotti: Okay.

Chair Kotelchuck: So --

Ms. Gogliotti: And I think I missed saying before, but the goal of this would be to eventually when we have it updated and populated to see if any trends are identified, seeing if this is a common problem that we see over and over again that it might be worth correcting or areas where the Board might want to look into further.

Chair Kotelchuck: Yes, exactly. I agree. And that's the spirit in which we ask you to set up this table. Looking at the --

Mr. Allen: I just want to make sure that just the fact

that these are on the list doesn't make it a negative. We're going to use professional judgment all the time. This looks like a tracking tool to me, and I don't want this to be just construed that anytime we use professional judgment it's a negative. And I don't think that's --

(Simultaneous speaking.)

Mr. Allen: -- the intent. But I just would like to make sure of that.

Chair Kotelchuck: And --

Ms. Gogliotti: No, absolutely not.

Chair Kotelchuck: -- absolutely right.

(Simultaneous speaking.)

Chair Kotelchuck: That's correct. In fact, that leads to the one concern or one -- not a concern, a thought I had after looking it over before. And that is we don't make any assessment as to what role the professional judgment -- how important that difference is in professional judgment or we always use professional judgment.

If people use a slightly different distribution and they get a couple of millirems difference, well, that's professional judgment. On the other hand, it's not one that is affecting the decision very much. There are some professional judgments that seem to be much more important.

Like today's work, I started looking at the professional judgments used in the internal dose. And I realized how complex it is and how much impact it could have as it had on the one -- I forget which one of our three today that it played a significant role. And it was the one major distinction

between the two assessments.

So there might -- I wish there were some way of -- and I don't know how to do it right off, but I will think about it and maybe others want to -- how we talk about the impact of differences in professional judgment which is different than saying professional judgment was used. Right now, these are professional judgment was used --

Ms. Gogliotti: Yes.

Chair Kotelchuck: -- and always will be for any assessment.

Ms. Gogliotti: Yeah, absolutely. There's no way to eliminate professional judgment from --

Chair Kotelchuck: Absolutely.

Ms. Gogliotti: -- a dose reconstruction. There's a reason that we have health physicists doing these and not someone without a background in this.

Chair Kotelchuck: Right.

Ms. Gogliotti: There's no way to --

(Simultaneous speaking.)

Member Clawson: But this is --

Ms. Gogliotti: Sorry, go ahead.

Member Clawson: But what Grady is saying is correct. This is not a tool -- actually, the way I see this tool, Grady, is this is more for the Advisory Board because there's so many times we go through so many sets of these and everything else like that. It's kind of -- for me, it is a way for us to be able to track areas where professional judgment is being used. And it's a tool for me to be able to understand what

we're looking at for this.

But I do understand your concerns. And this shouldn't be used as a negative because no matter what, there's always going to have to be professional judgment. But I understand your concern on that. And my personal opinion on this right now is this is new enough right now that we're not going to be able to discern or track a lot of stuff from it right now.

Maybe down the road when we have more information into it and stuff like that, we may have something that we may want to start looking into that we're seeing a trend or something. But right now, this is still the baby steps of it and that it may grow into something a little bit more useful. But right now, I think it's very beneficial for us to see where professional judgment was used.

Chair Kotelchuck: Any other comments? It certainly is the very beginning and we don't expect -- we would be very surprised if patterns show up in the first five or ten or whatever on the first couple of sets. But they may.

And in time, hopefully they will in a way that suggests to us that maybe we could do this better and eliminate some elements of professional judgment that we now use. That would be my hope. Any other comments from maybe some of the other Subcommittee Members? Does this look useful to you?

Member Beach: Dave, I think -- this is Josie. I think it looks useful. I'm interested to just see. I feel like it's an ebb and flow document where we can make changes if we need to once we put it into place.

Chair Kotelchuck: Yeah. Well, that's certainly true. And it is not like having to go back to everything we've ever looked at but only go back to a couple

sets of blinds which we have on hand. That's true.

Member Beach: I think it'll just give us a good understanding too of professional judgments and how they're used if they're captured.

Chair Kotelchuck: Yeah, yeah. Sounds good.

Member Valerio: Dave, this is Loretta. I think it's very useful. I looked at it and I do think that it's a very useful tool. How often would this be updated, though?

Chair Kotelchuck: Well, we're only using it for blinds, right --

Member Valerio: Yes, so --

Chair Kotelchuck: -- where we have. So we only have -- and we only started in 26. So we have another six coming up in Set 28 which will be added for the next meeting, I expect. So it's going to go -- it will go as fast as our blinds go, going forward. So it's going to be a while before things mount up enough that we begin to feel like there's a big enough body of data to say something really useful or may change.

Member Valerio: Dave, I so apologize, but my call dropped just at the beginning of your response.

Chair Kotelchuck: Well, bottom line is we were only doing blinds and we started with Set 26. We have six more coming for Set 28. And that's -- so it's slow. It's slow. But we're moving -- we'll move -- we're moving on it. It's going to be a while before --

Member Valerio: Okay.

Chair Kotelchuck: Yeah, okay.

Member Valerio: But I do appreciate the spreadsheet. I find it, again, very, very useful. So thank you.

Chair Kotelchuck: Very good. Okay, great. Any other comments? Anybody want to make a comment? Is there anybody who finds this not very useful honestly?

Hearing none --

Ms. Gogliotti: Is there any information that you would like to be tracked that isn't currently on here?

Chair Kotelchuck: I would like to think about the differences in professional judgments that have a significant impact on the PoC. And I don't know how to do it. And frankly, I hadn't thought about it and I just started looking over the three blinds today.

So I don't have any suggestion for that. But I'd like to think of a way of trying to assess how important the professional judgments are. I mean, there are some that are --

Ms. Gogliotti: That --

Chair Kotelchuck: Maybe we can determine some are less important or some are quite important.

Ms. Gogliotti: That might have to come from the Board as we talked about it --

Chair Kotelchuck: Oh, yeah.

Ms. Gogliotti: -- voting. I know that in our regular dose reconstructions, we have a low-medium-high ranking for findings. And even those, we have had a difficult time doing anything with it because so much judgment actually goes into that determination.

Chair Kotelchuck: Right. We also don't have anything about the occupation of the person. For example, I think a lot of the construction trades and journeyman workers in --

Member Clawson: But Dave, I think -- now is this going to just be on the Board Review System. I'm just looking at -- when we get into that depth of it, we're kind of getting into Privacy Act stuff. I'm just --

Chair Kotelchuck: Yeah.

Member Clawson: I don't know what that would buy us. I'm looking at this as an overall issue of where professional judgment is being used mainly in these sites and so forth like that. And I don't know that a professional would do it, but I just want to make sure that --

Chair Kotelchuck: You're right.

Member Clawson: -- it does not divulge too much and --

(Simultaneous speaking.)

Chair Kotelchuck: You're absolutely right. That is a concern if we were to list occupation or --

Member Clawson: Yeah, and I looked at this --

(Simultaneous speaking.)

Member Clawson: -- as this is in -- yeah, this is in --

(Simultaneous speaking.)

Member Clawson: -- the baby stages.

Chair Kotelchuck: Yeah.

Member Clawson: It's kind of in the baby stages right now. And I think as we get into this and the information starts kind of rolling in a little bit, Rose will probably want to tweak a few things or maybe be able to compare them. But right now, I think it's just

gathering the information.

I really find this useful because I will be honest. I get confused sometimes when we're doing all these different blinds and stuff like that of what professional judgment and what it was actually for. And this really helps me with that and it keeps me on track of, no, I remembered it wrong and this did not have professional judgment in there.

This is -- really to me, it's beneficial. And I think it's going to grow as we come down. But right now, I think we just keep it in the back of our mind. And as we need something, let's discuss it and go from there.

Chair Kotelchuck: Sounds good. In fact, I think we're all -- I think so far I've heard only agreement that it's useful. It's in its early stages. If we're asked to make a report from the Subcommittee to the Board, we might show them this document that we're -- what we're trying to collect and that we're trying to think through professional judgments and whether it might be --

(Simultaneous speaking.)

Member Clawson: And Dave, this is a Board product. This is not anything to hold over NIOSH or anything else like this. This is just informational for us because I understand what Grady's concern is on that.

Chair Kotelchuck: Yes.

Member Clawson: And no matter what, even us laymen understand that there's going to have to be professional judgment. This I see for me as helping me understand the process better and being able to go someplace and see where we've been using professional judgment and why we have to. I think that, I think, has been very beneficial. But this is

actually just a Board product for us to be able to help us.

Chair Kotelchuck: Right. And actually, I consider that it had to come to the -- it's part of our Subcommittee work. We are carrying out. And I do think that it would make sense to introduce it to the Board, tell the Board that we're doing this, and give them some sense of what we're gathering. And they may have to --

(Simultaneous speaking.)

Member Clawson: Very much so, and to lay out of what it is for and that this is for us to be able to kind of keep track of where this is being used and so forth like that because this is -- we've always -- every one of these sites, there's been some kind of a little bit of professional judgment or so forth like that. And it's just to kind of keep track. And in fact, it'd be a good idea to bring before the Board, let them know where it's at. And I do appreciate this, Rose. This, I think, will help us out an awful lot.

Chair Kotelchuck: Yes. So let me additionally thank Rose. And if there are other colleagues who helped you, Rose, thank them as well.

Mr. Siebert: This is -- can I -- I'm sorry to jump in. This is Scott.

Chair Kotelchuck: Go ahead.

Mr. Siebert: I don't want to speak for Grady. But just one thing that might be important is something we haven't been doing but we may have to start doing if we're going to track this which I think is useful is getting everyone to agree if something in the SC&A report is professional judgment or not. And the only reason I say that is, for example, we had today one of the professional judgment ones was discussing

about the plutonium clearance type.

In my opinion, that's not a professional judgment. We followed our written procedures to make that determination. So I think that's another little nugget that we may want to talk about as well.

Chair Kotelchuck: Sounds good. Okay. Well, I think we've kind of had a say. I think this is useful, and I think we're ready to think about when we're going to schedule our next meeting, right? I think we're pretty well --

Dr. Roberts: Dave, if you don't --

Chair Kotelchuck: Yes.

Dr. Roberts: -- mind, since we were talking a little bit about presenting to the Board, I think that was a good segue into the April 14th and 15th meeting. And I did kind of have a placeholder for the Subcommittee on the agenda for an hour. That could be too much time or too little --

Chair Kotelchuck: Yes.

Dr. Roberts: -- time. But can you give -- maybe the Committee can talk about what they'd like to present and how much time that would take.

Chair Kotelchuck: Okay. Can I preface that by saying that we have not in the past reported Subcommittee -- this Subcommittee has not reported regularly in the past to the Board. We had some particular needs to bring before the Board early on in your tenure. But I, for example, would not -- I don't see this as a regular thing.

We have particular information to bring about what we're doing on professional judgment and where we're coming on the blinds. But to me, there really

isn't more than really 15 minutes to get the Board up to date, just a brief report. And I really don't see an hour's worth of material. But do other people?

Dr. Roberts: Okay.

Chair Kotelchuck: Maybe other people -- and maybe we should be reporting more often. So I'm open to hearing what other Subcommittee Members have to say in terms of what we should do.

Member Beach: Dave, this is Josie. I agree with your assessment of what you need as far as the reporting time, unless you want to go into this document that we just covered to let the Board know what's happening with this professional judgment --

Chair Kotelchuck: Oh, yes.

Member Beach: -- and the tracking.

Chair Kotelchuck: Yeah. Oh, yeah. That, I intend to bring up. That would be an important part of the 15 minutes or so. But I don't see a really lengthy report.

(Simultaneous speaking.)

Member Clawson: Dave, this is Brad. I agree with you. I don't think we need that much. I think it would be beneficial for us to report to the full Board, given them kind of a heads up of where we're at and what we're doing. But I do believe that this professional judgment, this screen would not be able to be -- I don't think it would be able to be public.

Ms. Gogliotti: I could throw something -- like, dummy information into a PowerPoint slide with just examples of the things but not relating to any case. Would that be helpful?

Member Clawson: Yes, it probably would. I'm just

looking at the information on this, Rose. And I would --

Ms. Gogliotti: No, I agree.

Member Clawson: -- hate to be able to express anything of conflict there. But I would like the Board to know what we're looking at and stuff because I've heard many of them question the same thing. And sometimes we've been questioned on the same issue of professional judgment but we were talked of different things. So I think this really would be helpful.

Chair Kotelchuck: Yes. I think actually if we remove the site from each of these. The truth is I think the rest of the material would be okay to put in. We're not doing occupation. We're not doing site. And we're identifying the blinds by number.

So why don't we talk and also I will be talking with Jenny anyway. And I think we might be able to just change this a little bit so that we make it acceptable for public --

(Simultaneous speaking.)

Mr. Rutherford: Dave, this is Lavon. Is there a way that we can get to see that before it's presented in front of the Board?

Chair Kotelchuck: Oh, yes, absolutely.

Mr. Rutherford: Okay.

Chair Kotelchuck: Absolutely. And it's good that you remind me. For sure.

Member Beach: And Dave, depending on the interest of the Board Members, you may have an extended time period of questions on this since it's a new topic.

Chair Kotelchuck: Yeah.

Member Beach: Not a new topic but a new --

Chair Kotelchuck: Yeah.

Member Beach: -- way of tracking it.

Chair Kotelchuck: Yeah, yeah. We may. We may. That's a good point. But question is half an hour? Right, there may be questions. Why don't -- that's something that we can, I think, think about and I can talk with Rashaun and maybe some of you. Well --

(Simultaneous speaking.)

Dr. Roberts: But it really sounds like really no more than, like, a half hour in terms of --

Chair Kotelchuck: Oh, absolutely not.

Dr. Roberts: -- the intent of --

Chair Kotelchuck: Right.

Dr. Roberts: Okay.

Chair Kotelchuck: Half an hour maybe.

Dr. Roberts: Perfect.

Chair Kotelchuck: And 15 -- somewhere between 15 minutes and half an hour depending on questions. And I'd be happy to --

Dr. Roberts: Okay.

Chair Kotelchuck: -- do it. Happy to do that, and I will make sure that we get this set.

Participant: Hello? Hello? Hello? Hello?

Dr. Roberts: Mute, please.

Member Clawson: Okay. Well --

Chair Kotelchuck: Okay.

Member Clawson: -- this is Brad. I think that sounds good.

Chair Kotelchuck: Okay. That sounds find. Do we want to set a date now or tentative dates for the next meeting? Or we can do that at the Board meeting in April. No, I think we actually need to think about it --

Dr. Roberts: No.

Chair Kotelchuck: -- now.

Dr. Roberts: Yeah, let's think about it now. We can set something up tentatively. And then if it has to be adjusted, we can do that.

Chair Kotelchuck: Right, with so much --

(Simultaneous speaking.)

Chair Kotelchuck: -- suggestions.

Dr. Roberts: Right, exactly. And I'm not sure. It's kind of hard to be able to project without a tentative agenda. But would, like, six months out, would that be too soon?

Chair Kotelchuck: Actually, NIOSH and SC&A, I mean, basically, the question is, will we have material to review for the next meeting, cases not blinds. We finished --

(Simultaneous speaking.)

Ms. Gogliotti: Yes, we just finished the 29th set which you should've gotten, like, in the last few weeks or so.

Chair Kotelchuck: Right.

Ms. Gogliotti: I need to upload those into the BRS which I have not done yet. And then at that point, it just depends on how long it takes NIOSH to respond.

Chair Kotelchuck: NIOSH, what do you think?

Mr. Rutherford: Well, I'll let -- this is Lavon again. I'll let Scott respond a little bit on this because he knows how long it's going to take, if he has an idea.

Mr. Siebert: Sure, sure. I'd be happy to do that. Since we normally want the responses back to SC&A and the Subcommittee at least a month before the meeting so that you guys all have a chance to review it, I would say it's probably going to take us about a month and a half to do all our responses and work with NIOSH to get those in. So I'd say the earliest is probably about two and a half months.

Chair Kotelchuck: Okay. And then we have to have notice. Let's see. So --

(Simultaneous speaking.)

Chair Kotelchuck: -- February, March, April, sometime in May. Our meeting -- our Board meeting is in April. Sometime in May would be --

Dr. Roberts: Okay.

Chair Kotelchuck: Does that sound like that something --

Dr. Roberts: Yes. And remember, there's a -- we have to do the Federal Registry notice which needs to be submitted at least two months in advance with a draft agenda.

Chair Kotelchuck: Right.

Dr. Roberts: So is that giving us a comfortable amount of time?

Member Beach: I think June might be a more comfortable --

Dr. Roberts: Yeah.

Member Beach: That would mean you would be putting that in, in March, which is next month.

Dr. Roberts: Right.

Member Beach: Correct?

Dr. Roberts: Yeah.

Member Lockey: That's actually a few days from now.

Member Beach: Yeah, that might be pushing it.

Chair Kotelchuck: So it sounds like June.

Member Clawson: Yeah, but we already know what the information -- what cases we're going to be going over. All that information is already there. It's just NIOSH being able to return back. If we give them three to four months, we can still put it in the registry. I would really suggest that we put a time in on this for us to meet again because it's important we continue to be going through these.

Chair Kotelchuck: Yeah.

Member Clawson: Plus we've got to send something up because the more we put it off, the more we're going to have things coming up too.

Chair Kotelchuck: True.

Member Clawson: And by the way, I just wanted to say that Lavon has really jumped into his new

position. I noticed how fast he passed that buck. Congratulations, Lavon.

(Laughter.)

Mr. Rutherford: You know, I'm just taking -- I'm just following my leader.

(Laughter.)

Member Clawson: By the way, I never got to say congratulations, Lavon. I was going to call Bomber. I'm trying to be more professional. Sorry. But anyway, congratulations.

Mr. Rutherford: Thank you.

Chair Kotelchuck: Yes, congratulations indeed.

Dr. Roberts: Yeah. So we were talking about June. Would middle of June -- would that be good? That's summer. I don't know what plans are like.

(Simultaneous speaking.)

Member Lockey: The 16th of June?

Dr. Roberts: Yeah, thereabout. That's a Wednesday. Dave --

Member Beach: Works for me.

Member Lockey: Works for me.

Member Clawson: Yeah, that would work for me. We'll tentatively put that in then.

Dr. Roberts: Okay. And we'll do the typical 10:30 Eastern start time. And Dave K., did I hear that that's okay with you, the 16th?

I'm not hearing Dave anymore. Dave --

Member Beach: He might've --

Dr. Roberts: -- are you there?

Member Beach: -- dropped off.

Dr. Roberts: Yeah, okay. Well --

Member Beach: Do you got --

Dr. Roberts: -- that's unfortunate.

Member Beach: Yeah.

Dr. Roberts: Well, why don't we just go ahead tentatively and say June 16th. And if there's a -- if he has an issue with it, we can certainly adjust it.

(Simultaneous speaking.)

Dr. Roberts: And I think that --

Member Beach: -- see if he calls back in?

Dr. Roberts: Yeah. Let's see if he can make it back.

(Simultaneous speaking.)

Chair Kotelchuck: Hi, folks. Sorry. I just got --

(Simultaneous speaking.)

Chair Kotelchuck: -- and had to come back in.

Dr. Roberts: Okay.

Chair Kotelchuck: So what did you --

Dr. Roberts: Well --

Chair Kotelchuck: -- decide?

Dr. Roberts: Well, people seem to think June 16th which is a Wednesday would work okay for them. And

I just wanted to make sure --

Chair Kotelchuck: Okay.

Dr. Roberts: -- that was okay with you.

Chair Kotelchuck: Okay. I'm pretty sure that is. Let's see. Wednesday, June 16th would be just fine. Wisdom says --

Dr. Roberts: Okay.

Chair Kotelchuck: Good wisdom says to pick an -- is there anybody from the Subcommittee who is not on the phone or the staff that can't make it?

Dr. Roberts: Well, we are missing Dave Richardson. So it could be that that doesn't work for him.

Chair Kotelchuck: A day before, a day after, the 15th or 17th as backups?

Member Beach: The 17th works for me --

(Simultaneous speaking.)

Member Beach: -- not the 16th.

Chair Kotelchuck: Not the 15th? Okay, 17th. How about the 17th for everybody?

Dr. Roberts: As a backup?

(Simultaneous speaking.)

Chair Kotelchuck: As a backup. Wednesday, the --

(Simultaneous speaking.)

Chair Kotelchuck: Yeah, Wednesday --

(Simultaneous speaking.)

Chair Kotelchuck: -- the 16th.

Member Lockey: The 16th works, Jim Lockey, but not the 17th or the 18th.

Chair Kotelchuck: Okay.

Member Beach: What about the -- how about the 14th?

(Simultaneous speaking.)

Member Lockey: What date --

(Simultaneous speaking.)

Member Beach: The 14th is a Monday.

(Simultaneous speaking.)

Dr. Roberts: Yeah, we try not to Monday or Friday.

Member Lockey: How about the 15th?

Member Beach: I can readjust is if it's a second. I have a standing commitment on that day, but I can reschedule if that's our second choice, not our first.

Chair Kotelchuck: Okay. That sounds good. I'll tell you why. We're only depending on one at this point. And the chances are that person can make it. And if they can make it, that'll be fine. There's a small chance we might need the 15th. And if so, we'll get back in touch with you ASAP.

Member Beach: Sure. Sounds perfect.

Chair Kotelchuck: Good. So the 16th it is with a backup --

(Simultaneous speaking.)

Chair Kotelchuck: -- on the 15th.

(Simultaneous speaking.)

Chair Kotelchuck: Very good. And Rashaun, you'll contact David and find out --

Dr. Roberts: Yes.

Chair Kotelchuck: -- what he --

Dr. Roberts: Yes, I will do that.

Adjourn

Chair Kotelchuck: Okay, very good. Folks, we've had a very good meeting and got a lot accomplished. We're ready to go on to start reviewing the next cases. Okay. Thank you all.

(Whereupon, the above-entitled matter went off the record at 3:48 p.m.)