Centers for Disease Control
National Institute for Occupational Safety and Health
Subcommittee on Dose Reconstruction Reviews
Wednesday, April 20, 2022

The Subcommittee convened via Teleconference at 11:00 a.m. EDT, David Kotelchuck, Chair, presiding.

Members Present:

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

Also Present:

Rashaun Roberts, Designated Federal Official
Nancy Adams, NIOSH Contractor
Bob Barton, SC&A
Kathy Behling, SC&A
Finn Black, SC&A
Grady Calhoun, DCAS
Rose Gogliotti, SC&A
Michael Rafky, HHS
Beth Rolfes, DCAS
Scott Siebert, ORAU Team

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Proceedings

(11:03 a.m.)

Roll Call/Welcome

Dr. Roberts: Welcome, everyone. Good morning. I'm Rashaun Roberts. I'm the Designated Federal Official for the Advisory Board on Radiation and Worker Health. This is a meeting of the Board's Subcommittee on Dose Reconstruction Review. And of course there's an agenda available for today. You can find it on the NIOSH website under scheduled meetings for April 2022.

It's now time for roll call. Now, since this Subcommittee will be discussing dose reconstruction cases pertaining to specific sites today, Subcommittee Members and others do need to acknowledge conflicts of interest and to recuse themselves from the discussion where the conflict may be present.

So as we move through the roll call, please state your conflicts. And I'll go ahead and start with you, Dave.

(Roll call.)

Dr. Roberts: Okay, great. All right, well, with that, I didn't hear anyone from the public wanting to register, which is fine.

Again, thank you, welcome. To keep everything moving smoothly today, I just want to remind you to please make sure you're on mute when not speaking. If you don't have a mute button on your phone, press *6 to mute. And to take yourself off, press *6.

And as I mentioned earlier, the agenda for the meeting can be found on the DCAS/NIOSH website under April 2022. Access to other materials was

provided to the Board Members and to staff prior to this meeting.

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

Blinds Review Cases from Set 30

Chair Kotelchuck: Okay, fine, thank you. So, we have two blinds cases, both from Hanford by the way. So, Josie, you have a conflict I know at Hanford, but -- and then we will follow with a discussion of the summary dose reconstruction information from March 22. And I hope folks -- we had, as was indicated previously, the original draft of this from SC&A from Rose Gogliotti on behalf of SC&A, was issued on 12/20/21, but then -- and that's what we turned in for the schedule.

But at a later date, she got more information and was able to update it, and I had a chance to review it with her, and so -- and that was the March 22 Rev 1 version. So we will start, as we have on the screen, we will start with one of the blinds.

Rose, who is it? Rose, are you leading that part of the discussion?

Ms. Gogliotti: Yes, you guys are stuck with me all day today.

Chair Kotelchuck: All right. Well, we're happy to have you. And this is the relevant background, relevant information is on my screen. But which of the blinds? Is that D-45 or D-49?

Ms. Gogliotti: This is D-45. I figured we'd start with it, if that's okay with everyone?

Chair Kotelchuck: That's fine.

Ms. Gogliotti: This one was authored, actually, by Ron Buchanan. However, he is on vacation in Hawaii, so I will be presenting on behalf of him today.

This was a case, obviously, from Hanford, that had a number of cancers, you'll see here on the screen. And this one is a little unusual. Normally, I would not bring up the cancer types. Obviously, we try to not release any Privacy Act information. But this one has a fairly unique cancer that I'm not sure we've discussed as a Subcommittee in the past.

It had an unknown primary cancer, and when that happens, it's fairly complicated in how you have to treat that cancer. And that guidance comes from OTIB-5. And this particular ICD-9/ICD-10 code has five separate cancers that you need to model, and then you end up assigning the higher model or the model that gives you the highest PoC overall.

So, both SC&A and NIOSH went about that in the same way, and we ended up selecting the same primary cancer to assign. But I did want to point out that it is a lot of additional work, because you end up having to do five dose reconstructions for this single cancer. Because of that, I will point out that it was important to note the EE's smoking history, and that is highlighted on the screen for you there, as well as their ethnic background, which I have highlighted on the screen also.

These cancers were diagnosed from the late '90s all the way through the late 2010s. Both NIOSH and SC&A derived a PoC of less than 50 percent. Our doses were fairly close as you can see here from Table 1-2 on page eight, fairly close. Most of the different types differ only by a few millirem, and our individual PoCs are very close.

Rolling through here, you see it's fairly constant with

the exception of one organ, and NIOSH ended up with a PoC of very close to 50 percent, but below 50 percent. And SC&A was slightly lower, also close to 50 percent, but they differ by approximately .3 PoC. So, very close overall.

Chair Kotelchuck: Very close overall, and also both of them just under 50 percent. So again, that was, in my opinion, a challenge to us, that they were both near 50 percent but below and they agreed. So, good, good. Sorry to interrupt.

Ms. Gogliotti: No problem. This individual ends up working close to 30 years, beginning in the late '80s and into the 2010s, as you can see here in Table 2-1. He had a profession related to being an operator and an engineer. Their exact specifics are on the screen. Here you'll see just a summary of the documents that we reviewed as part of this evaluation, and on Table 2-2 you'll see on page 13 is just a comparison of the doses that were assigned by NIOSH and SC&A.

And here you'll see overall there's not a lot of differences as a reminder. The dash just means that we did it the same. We made mostly the same assumptions. There's some differences in the distributions and how it was assigned in IREP, a few small differences in the number of zeroes assigned. But overall these were very close dose reconstructions.

Moving on to external dose. This EE was monitored for external exposures, on both penetrating and non-penetrating doses and here's just a summary of the energy distributions and dose -- or DCF that were assigned by both NIOSH and SC&A, as well as LODs. For recorded photon doses, both NIOSH and SC&A assigned dose using the dosimetry. Our doses were close.

Really, the only difference between the two was that for non-skin cancers, NIOSH uses Monte Carlo-generated dose correction factors, which causes some slightly different doses. Still in the same ballpark but slightly different, as well as slightly different distributions. Recorded shallow dose, both SC&A and NIOSH did not assign shallow doses.

Chair Kotelchuck: Either way -- pardon me for interrupting. Your voice is low. I tried to raise my -- raise the level on the screen for hearing you. Are other people having that problem? Is your voice fading, or is that just me?

Ms. Gogliotti: I get in trouble a lot for not talking loud enough. I can talk louder, sorry.

Chair Kotelchuck: Okay. I'd appreciate that. Thank you.

Ms. Gogliotti: Okay, so neither NIOSH or SC&A assigned recorded shallow dose in this case, and that just is based on the dosimetry records. But we did both assign recorded neutron dose. Here, both SC&A and NIOSH assigned approximately a year of neutron dose. Our skin doses do match; however, the other organs differ slightly and that's because NIOSH used a Weibull distribution and SC&A just doesn't have the ability to completely match those doses.

For missed photon doses, NIOSH assigned two more zeroes than SC&A, which resulted in NIOSH assigning slightly more missed photon doses than SC&A. If you remember, that's fairly common that we see slightly different numbers, especially for Hanford. There's a rather complex guidance for determining the number of zeroes, and a lot of records end up handwritten and it's just too difficult to come to a certain value.

So, in one particular year, NIOSH assigned two more zeroes than SC&A and that's the main difference,

which is again a very small dose. And then also the Monte Carlo dose correction factors again. Okay. Moving on to missed shallow doses, a single zero was identified by both NIOSH and SC&A, and for most cancers, SC&A and NIOSH came up with exactly the same number.

The difference was on certain cancers, NIOSH chose to apply a clothing attenuation factor. Basically that just covers attenuation that's caused by clothing being between the source and the actual cancer in these three particular locations. SC&A, however, did not assign a clothing attenuation factor, which resulted in SC&A finding slightly larger doses to those cancers.

Those cancers are located here. I can't get it to highlight for whatever reason, but it's up on the screen to show you exactly where they were located. But they could reasonably be interpreted by being covered by clothing or not. So that will come up in the professional judgment section of the review.

With regard to missed neutron dose, both SC&A and NIOSH assigned 61 zeros. The log normal distribution was a CST of 1.52, and the only difference there again was the Monte Carlo-generated dose correction factors. These were very close. Both SC&A and NIOSH did not assign unmonitored dose, because we found there was no need to in this case, so that's great.

Moving on, NIOSH and SC&A also identified 19 PA chest examinations and assigned dose using the TBD, and assigned that as a normal distribution with a standard deviation of 30 percent. Again, those were the same. For ambient dose, both SC&A and NIOSH modeled similar doses, but there were some modest differences in the time period that we selected.

I'll get those highlighted here for you. If can see my mouse, these are the years NIOSH selected versus the years that SC&A selected. They're similar but not identical, and that's the main difference there that resulted in NIOSH assigning a slightly larger dose.

Okay. Moving on to internal doses on page 21, this EE was monitored by urine bioassay, as well as chest count and whole body count for plutonium, uranium and strontium, and all the results were below the MDA. For plutonium dose, NIOSH modeled their doses first based on the urinalysis dose, assuming a 10 year aged 12 percent plutonium mixture, and then they also modeled the chest count data using 10-year aged six percent Pu mixture.

Those were modeled in IMBA, and then they selected the highest dose that remained consistent overall. So that ended up being a Type S six percent Pu. SC&A followed a very similar modeling technique, but we ended up assigning a 12 percent Pu mixture. And then SC&A also assigned missed dose to the year 2017. That's based on some dosimetry records that were available.

NIOSH did not assign missed plutonium dose to that time period. They instead assigned co-exposure dose to that time period. So a little bit different, but the plutonium doses end up differing by only about one or two millirems for most of the cancers.

For uranium dose, there were six urinalysis results for uranium. However, only three of them were, had results associated with them. One had insufficient volume and two were lost. So both NIOSH and SC&A did what we could with the results that were available, and we both modeled approximately a year of uranium intake, and then assigned doses used the Chronic Annual Dose workbook.

The difference here is NIOSH chose to extend the dose through the end of monitoring. So this particular EE had a record that indicated that they were monitored through a certain time period. SC&A instead ended the uranium dose at the last actual urinalysis result. So NIOSH ended up defining five more months of uranium intake than SC&A.

There was a fairly small difference in dose that was assigned, but that was a difference in assumption and professional judgment.

For fission product dose, the EE was monitored for strontium, and that was by urinalysis as well as whole body count. And these were performed through the majority of their employment. All of those were, again, below the detection limits.

Both NIOSH and SC&A used OTIB-54 to assign fission product doses. The difference in our modeling is NIOSH used the changing MDA over time, while SC&A assumed a continuous MDA. And that resulted in SC&A, I believe, assigning a slightly larger dose. No, NIOSH assigned a slightly greater dose. I apologize.

And, moving on to co-exposures, both NIOSH and SC&A assigned co-exposure intakes using the TBD and OTIB-54 for approximately four years of employment. Here, NIOSH additionally assigned the 2017 doses that we discussed earlier, whereas SC&A assigned that as missed plutonium rather than a co-exposure intake.

Here, SC&A did make an error. When we were assigning our fission dose using the TBD. To iodine-131 intake rate, we assigned -- we accidentally moved the decimal place one over, so instead of using 3.4 E to the 3, we used 3.4 E to the 4 picocuries per day, which resulted in us assigning a larger iodine intake than NIOSH. But that ended up being a fairly

small dose, around eight millirem for the later diagnosed cancers, so that was an error that was made.

Moving on to environmental intakes. Both SC&A and NIOSH modeled environmental intakes using the TBD guidance. NIOSH calculated doses of under a millirem to each of the cancers. They went ahead and assigned dose anyway as a log-normal distribution with the GSD of three. SC&A came up with very similar under one millirem doses. However, we decided not to assign dose because doses under a millirem annually do not need to be assigned. That is another difference.

So, moving forward, then, to page 28, no CR (phonetic) discussion of decision points that required professional judgment in this case. And we did note two areas, the first being the clothing attenuation factor. NIOSH assumed that certain cancers, based on the location, were covered by clothing all the time, and using the guidance from OTIB-17 used the clothing attenuation factor of .855.

SC&A assumed that those same areas could potentially not have been exposed -- or not have been covered, and thus did not apply a clothing attenuation factor, resulting in SC&A finding slightly greater missed electron doses.

There was also a difference in co-exposure in this plutonium for the year 2017. In this particular instance, the EE had a baseline and termination plutonium urinalysis was in the same year. Because of that, NIOSH chose to assign co-exposure intakes, and SC&A instead assigned missed dose. Both ended up with doses of less than a millirem per year. Both reasonably could've been omitted from this.

And then the other difference we noted was the end

of uranium exposure risk. The difference was fairly mild. NIOSH extended the uranium dose out through the end of when the EE was on uranium monitoring frequency, whereas SC&A ended it at the last bioassay monitoring. So a five month difference there. It had a fairly small impact on dose, other than one particular organ which has some different biokinetics.

And that takes us to our summary on page 30. Here in Table 6-1 you'll see the doses that were assigned by both SC&A and NIOSH, as well as the PSEs for the individual cancers, and the combined PoCs. You'll see overall they're very close. Main PoCs differed by less than .3 percent so we're very close, and then again here, there's a summary of the main differences. Were there any questions?

Chair Kotelchuck: Questions folks?

Member Clawson: This is Brad. I just, I'm really impressed with how both of you did this so close. It's really a good job on both sites.

Chair Kotelchuck: Yeah.

Ms. Gogliotti: Thank you.

Mr. Siebert: Yeah, this is Scott Siebert. I mean, yeah, there were small differences. I don't think we need to go through all of them. Actually, unless there's questions, I don't really see a reason for any of them. But I want to exactly agree with Brad, Ron, and Rose for the next one. You did a great job on both of these with how closely they matched up, so I just wanted to give kudos on that. That's great.

Chair Kotelchuck: Great, very good. Yes. I agree. I do wonder if we go back to the method that people used, there were a couple of cases where some folks used the Weibull and the other, one group uses the

Weibull and the others didn't. So that in one case, there was one distribution, I think it was a normal distribution. Could we go back to that by the way on the screen?

Ms. Gogliotti: Yes. Let me get it pulled up here for you.

Chair Kotelchuck: Okay.

(Pause.)

Ms. Gogliotti: There you go.

Chair Kotelchuck: Right, okay. One was right, constant, and the other was constant in Weibull. Could somebody who does this, can you explain why, technically why you could use two distributions for one and the one, in this one three, and for the other just one for the --

Ms. Gogliotti: It's real complicated, but I can try. So at SC&A, we use constants for our dose, our DCF values.

Chair Kotelchuck: Uh-huh.

Ms. Gogliotti: We pull them directly out of IG-001. NIOSH on the other hand gets their values other than for skin cancers from IG-001, but they're generated by Monte Carlo distributions. So for every single year, they're assigning a slightly different DCF value.

Chair Kotelchuck: Ah.

Ms. Gogliotti: And because of the additional modeling that they're doing, they're able to assign other distributions. Whereas we just use the constant distribution or whatever else is assigned or stipulated in the TBDs.

Chair Kotelchuck: Oh okay, thank you. That makes

sense. Good, good.

Ms. Gogliotti: We just don't have the capability of generating the Monte Carlo values in the same way that they do.

Chair Kotelchuck: Right, right. Okay, good. That certainly answers that question for me. Any other questions or comments?

Member Valerio: Dave, this is Loretta. I have a question and a comment.

Chair Kotelchuck: Go ahead.

Member Valerio: So the comment is, you know, the time review they did an excellent job, I mean as far as, you know, detailing everything and how close the percentages were. My question is, and it's not really about the blind review but it's just a question that was raised in my mind, was the cancer of the tonsil.

I was just -- and I don't know if now is the time to look back, please tell me. But I was just wondering if maybe that wasn't sent back to NIOSH and awarded under the Hanford SEC.

Chair Kotelchuck: I didn't quite understand that, but if others did.

Mr. Siebert: Well I can, I can -- honestly I can save -- this is Scott. I can save us a little bit of trouble on that. I mean I don't know off the top of my head if that's an SEC cancer or not.

I don't believe it is off the top of my head, but it's kind of a moot point because this claim has actually come back for rework since then with an additional cancer, and as a full rework it went over 50 percent. So it's been taken care of regardless.

Member Valerio: Okay.

Ms. Gogliotti: And that particular cancer is not part of the 22 SEC cancers.

Mr. Siebert: Right, right.

Member Valerio: Okay. I thought it was. I'll go back and I'll look at the list. But I thought it was. Okay. All right, thank you.

Mr. Siebert: Okay.

Member Clawson: Hey Dave, this is Brad.

Chair Kotelchuck: Uh-huh.

Member Clawson: Dave, this is Brad. So you and Rose and Scott, like you guys -- both the way you guys did it was correct. It was, it's just a different approach; is that correct?

Mr. Siebert: For the professional judgment portions yeah. I mean I'd agree with that, such as the clothing attenuation factor. I think those are both reasonable assumptions for, you know, something that's on the neck and arm. We went back into the CATIs and I think we have a little bit more evidence for actually applying it. But that's a pretty good professional judgment.

Member Clawson: Oh yeah. I'm just, I'm just concerned that, you know, there is a judgment in there on that. But you're both doing it the same, you know, per what our requirements are, but I do realize that sometimes professional judgment comes into it. But it is, it is both correct.

Mr. Siebert: Right.

Member Lockey: This is Jim Lockey.

Mr. Siebert: Yes, yes. We hear you, we hear you.

Member Lockey: I have one, one question with, and this is probably not significant, but I just didn't quite understand it. Rose, when you were looking at the plutonium mixture, NIOSH had it at six percent and you found it at 12 percent. I just was curious as to where you give an explanation of that, because I was unable to find it. Is there -- where was that?

Ms. Gogliotti: So the NIOSH models, their plutonium intakes, they look for internal consistency. So with their -- they did the urinalysis as well as the whole body count modeling separately, and they check to see if they're internally consistency. So does the urinalysis over or under-predict the results from the whole body count and vice-versa.

That's why they ended up choosing the lower percentage than SC&A, because SC&A did not make that comparison. And so SC&A's would be slightly more client-favorable, but is internally inconsistent.

Member Lockey: It's internally what? I missed that last statement.

Ms. Gogliotti: Inconsistent. So none of the results could over-predict what the MDA values were for the other. Does that make sense?

Member Lockey: It does. It didn't make a big difference here, but it could make a difference in certain circumstances, at a different percentage, couldn't it?

Ms. Gogliotti: Yes, it could.

Mr. Siebert: This is Scott. I can kind of jump in. I'm sorry. Go ahead and finish your question. I didn't mean to interrupt you.

Member Lockey: So I'm just trying to -- which was -- was either approach appropriate, or is one more appropriate than another? I guess I'm trying to figure that out.

Mr. Siebert: Yeah, I have a question. OTIB-60 does cover this portion, and as Rose was saying, it's -- it needs to be consistent between the two. You don't want to over-predict one or the other. OTIB-60 is pretty clear. We from urine, you start off from one of the mixtures, and if you're starting from chest counts, you start with the other mixture because they're more claimant-favorable.

And then we validate that it's consistent with the other type of analysis, such as the chest is consistent with the urine or vice-versa, from whatever you're starting with. So doing it that way, it follows OTIB-60's prescription to deal with it that way.

Member Lockey: Okay. So going forward, which approach would you take then?

Mr. Siebert: We would always follow the direction we did.

Member Lockey: Okay, and SC&A followed a different direction. So I guess my question is which is most claimant-favorable and scientifically sound?

Ms. Gogliotti: SC&A's would be more claimant-favorable. NIOSH's would be more scientifically sound.

Member Lockey: Okay.

Chair Kotelchuck: Well, that would speak to SC&A as being the one to be chosen.

Mr. Siebert: I would agree -- I would disagree with that.

Chair Kotelchuck: Right.

Mr. Siebert: We do have a specific procedure that lays out how to deal with it, and we need to ensure that it is consistent between both sets of monitoring. That is -- I mean if you want to say that -- well, I mean that's just the bottom line, is we have a procedure on how to do it that is the process for doing the comparisons and it is, as was said, it's the more scientifically valid way of doing it.

Mr. Barton: This is Bob. If I could just weigh in here. I tend to agree with Scott here. When you have two sets of measurements they have to agree, because we're making some assumptions about what the intake was and how we reconstructed dose. But if you have two different sets of measurements and both are valid, and we're making assumptions on what the mix is that could have been taken into the EE's body, then those two sets of measurements should agree.

If we're making conservative assumptions on one set of measurements but they just don't agree with the whole body count, then you have to take into account that maybe the assumptions aren't reflecting what we're trying to reconstruct here.

So I think in this case, when you have -- and it's somewhat rare that you have bioassay and in vivo that you can compare against each other, you have to make sure that both sets agree with the model of the intake that we're trying to apply.

So SC&A's analysis was more claimant-favorable. However, I think that in this case, when you can -- when you have the data to compare for the same individual, in vivo measurements and bioassays, then that has to be taken into account.

Member Lockey: Brad, Jim Lockey. You're saying then the scientific -- that's the more scientific

approach then, correct, in this case?

Mr. Siebert: Correct. I guess we're --

Mr. Barton: Right, Dr. Lockey. I would agree with that.

Mr. Siebert: We're inaccurately using the word "claimant-favorable" really. If you don't compare them, it potentially is an overestimate rather than just claimant-favorable. Claimant-favorable would be if you're not sure and both are accurate.

So I would have a tendency to say that SC&A's is a slight -- and I'm putting heavy emphasis on the word "slight," over-emphasis. But yes, doing the scientifically comparison route is what our procedures require us to do in a best estimate case.

Ms. Gogliotti: I also want to point out that these are -- all of the results were below the MDA. So we're talking low doses either way.

Chair Kotelchuck: Sure.

Member Lockey: I understand it was low dose. I was just -- I think, under certain circumstances, the higher doses could make a difference. But I was just -- to me, six percent versus 12 percent seemed to be significantly different percentages, and I was just trying to figure out the rationale. All right, thank you Rose. I appreciate it.

Chair Kotelchuck: Well actually Jim, since you've raised it, I'm -- I'm a little troubled by the fact that the SEC -- that Rose said well, it could make a, it could make a significant difference at times, or and that's -- there's a part of me wouldn't mind if the, if Scott and Rose or the organizations talked a little bit and came back with what might be appropriate.

I understand that NIOSH has procedures. It follows those procedures, and this is an unusual case where we have, you know, chest and other bioassays. But would it be appropriate to talk, for you folks to talk further technically about that, and come back to the Committee with --

Ms. Gogliotti: I don't think that's necessary.

Mr. Calhoun: Yeah. Dave, this is Grady. I don't think that's necessary, because I think that everybody has come to the conclusion here that we use what's most technically valid. If we didn't have the two estimates like Scott said or two readings, we would obviously go with whichever one yielded the highest result. But one actually negates the other. So we used the correct one, so I don't think there's any further discussion needed.

Chair Kotelchuck: I see. Well okay. That's, that's a good argument, and that makes sense.

Member Lockey: So Dave I -- Dave, this is Jim Lockey.

Chair Kotelchuck: Yes.

Member Lockey: I would think that if you had two different approaches and they were both equally technically scientifically valid, then you would always chose the more claimant-friendly results.

At least that would be my approach. So if you have one -- if you have one approach that scientifically is more technically valid than another approach, then that would be the approach I would take, is just based on our mandate so --

Chair Kotelchuck: Right. Okay, right, reinforcing what was just said. Sure, okay. I'm satisfied on that. Thank you both for that. So I think unless there are further

questions or comments, I think this would probably be the time that we should -- I'm not sure if we say approve or we accept the -- that both results are -- both works are scientifically valid. They're consistent, and that to my mind concludes the debate.

I'm not -- the discussion, I'm not sure. Do we say that this is accepted or approved? What is the proper determination that we have to make.

Member Clawson: I think, I think accepted --

Chair Kotelchuck: Yeah.

Member Clawson: But there's -- we're not approving anything or accepting what was brought before us, and the blind being done like this and the levels of professionalism that was done with it, and I think it's just more accept. But that's my take.

Chair Kotelchuck: Well let's do it. That's good. So and I'm -- we haven't done this in a while. So basically we are saying we accept that both, both the NIOSH and SC&A works are professionally were valid, are professionally valid and appropriate. So okay. Are there any objections to that?

Hearing none, we accept. We accept both. All right, fine. Shall we go on now to the next blind, the D-49, right?

Ms. Gogliotti: Sure, and everybody can still see my screen?

Chair Kotelchuck: Uh-huh.

Ms. Gogliotti: Okay, we're here. So this is also a Hanford case, and this particular case has under 15 years of employment, and it's again in the 2000's. I'm hearing a lot of feedback on my end; I don't know if it's just me. Mr. Siebert: Yeah, I'm hearing it.

Mr. Barton: I'm hearing that too.

Member Clawson: Yeah.

Dr. Roberts: If everyone could go mute.

Ms. Gogliotti: That sounds a little better. In this case, there were fewer cancers than the last one. You'll see that listed here in Table 1-1, and these cancers were all diagnosed in the late 2010's, and here SC&A and NIOSH did their dose reconstructions and we both came to a PoC or combined PoC of less than 50 percent, and thus we both came to the conclusion that this case was not compensable.

On Table 8, you'll see our comparison of doses. The doses were close, not quite as close as they were in the last case, but still fairly consistent, and our PoCs were also fairly consistent. Here, NIOSH had a PoC of roughly 45 percent. SC&A was slightly lower, but still very close.

They differ again by hardly anything. Here on page nine, you'll see the summary of EE's employment history. You'll see that they did have multiple periods of employment, and there's a little bit more information here for you.

Here's just a list of documents that were reviewed as a result of this evaluation. Here on Table 2-2 you'll see a summary of the differences. When you see a dash, that is an agreement, meaning we do it the same. There are some differences here. I'll point out that for one organ, our less than 30 keV dose correction factors differ.

There's a reason for that that we can get into, as well as NIOSH used some apron correction factors that SC&A did not use. Those are the main differences throughout this report, and they repeat over and over again. All right. So for recorded photon dose, the EE

was monitored. Both NIOSH and SC&A used the dosimetry records to assign dose, and that's where we'll get into our first difference.

In two years in the CATI report, the EE recalled maybe wearing a lead apron once or twice in either year. They weren't really sure when, and they weren't really sure if they were wearing their dosimeter under their lead apron or not. They thought they were wearing it under.

Now the Hanford TBD does not have any guidance about apron correction factors. The Pantex TBD does however have guidance on that. So NIOSH went ahead and assigned an apron correction factor of 1.5 to those cancers. SC&A did not, and NIOSH only assigned those to the highest dosimeter in two years, which I assume was a claimant-favorable assumption based on the EE's recollections.

There is also a difference in the thyroid, oh I'm sorry, a dose correction factor of four, less than 30 keV photons. NIOSH used a special DCF value, and that comes from IG-001 in Table 4-1a. SC&A, however, used the standard DCF from the appendices in IG-001, the difference being that the NIOSH values are designed to use with plutonium, which the EE was exposed to. SC&A missed that, and we just used the standard HP-10 values.

They're very close. They differ by approximately .05, but since the NIOSH values are higher, they did calculate a higher dose because of that.

For missed photon dose, both SC&A and NIOSH identified 72 zeros. Here really the only difference is, is that specific DCF value was different, as well as the Monte Carlo-generated dose correction factors. For recorded shallow dose, both SC&A and NIOSH assigned it using a single dosimeter. It was assigned

as less than 30 keV photons, and again the difference here is that same DCF value, as well as the Monte Carlo DCF values.

And moving on to missed shallow dose on page 15, both SC&A and NIOSH calculated 34 zeros and used the same method to assign this shallow dose. The difference, the same thing over again, fairly close overall. For a recorded neutron dose, both SC&A and NIOSH made the same assumptions about the EE's work location, which resulted in using the same neutron energy distributions, and we identified similar dosimetry results.

The difference here is that NIOSH applied their ICRP correction factors to neutron doses prior to January 1st of 2011. SC&A on the other hand assigned them prior to January 2010, so that is a difference. NIOSH also used an apron dose correction factor again, or the apron correction factor for certain organs that SC&A did not apply. And then of course we have the same Monte Carlo-generated DCFs, differences that we see throughout the report.

For missed neutron dose, the EE had a single zero. Nope, I'm sorry, not single. We differ by a single one. NIOSH assigned 66 zeros; SC&A calculated 65, but overall we had very similar doses, the differences again being the end date of the ICRP correction factor, 2010 versus 2011; the Monte Carlo DCFs and NIOSH used a Weibull distribution in there, which SC&A did not use.

Moving on to occupational medical doses, both SC&A and NIOSH identified 21 examinations in the EE's records, but we differ on how we treated one of those. NIOSH assigned 11 PA scans and 10 lap scans, whereas SC&A assigned one AP, 10 PA and 10 laps. So we did interpret one of those records differently. I'm getting a lot of feedback again.

That one scan happened in the year 2000, and AP doses are larger for each of the cancers and the PA doses. So that did result in SC&A assigning a larger dose to that result. We also differed slightly on the location that was assigned for one of the cancers. SC&A picked the location I have highlighted, and NIOSH picked something similar but here we go. This, which I also have highlighted.

The difference is about 9 millirem per scan. When we did go back and look at the record, NIOSH did actually contact DOL about this particular record, and DOL came back and said that that was the more appropriate location. Based on the ICD-10 code that was assigned, SC&A just missed that record of communication when we were going through this, but that is the difference.

For ambient dose, we came to a different conclusion. NIOSH ended up assigning eight days of the ambient dose for a particular year of employment. The EE had a medical injection, which we don't see a lot of. It is well-documented in their records. That was a medical X-ray incident, so it had nothing to do with their occupational exposures. But after their injection, they wore their dosimeter, so their dosimeter was potentially exposed to non-occupational exposures.

They reported it fairly quickly, and the results were investigated by Site personnel. The personnel ended up not changing the dosimetry record at all, but NIOSH went ahead and assigned additional ambient dose for those eight days. It was a dose much less than a millirem, but they went ahead and added it anyway.

SC&A did not assign ambient doses. We did discuss that incident in the records, but we felt that no change was necessary based on the conclusion that were of the Site personnel. But that is a difference

nonetheless.

Okay, moving on to internal doses on page 19. The EE was monitored for plutonium, americium and uranium. They had urinalysis, chest and fecal results in their records. They were all below the MDA with the exception of there was one count that was higher than the MDA. However, it was deemed to be a false positive. Later on that day, a second result was -- a second test was done and essentially negated the first test.

Both SC&A and NIOSH came to the conclusion that that was likely a false positive, and did not assign positive dose as a result of that. Okay. So for plutonium, EE was monitored for plutonium, as well as americium-241, which is a progeny of that. NIOSH assigned this plutonium using 20 year aged 12 percent material from the start of employment through the end of monitoring.

They also monitored a lung count and found that Type M, using the urinalysis results, was the best in that it did not over-predict the sampling and they ended up with fairly small doses. SC&A instead actually modeled isotopic Pu and uranium using IMBA, and we also came with small doses, but slightly larger than the NIOSH values.

Both SC&A and NIOSH found model doses less than a millirem, so they reasonably could have been omitted from the dose reconstruction. For uranium intakes, NIOSH did not acknowledge EE's uranium monitoring.

SC&A, however, did identify there were some routine chest counts that were analyzed for uranium and thorium, and so SC&A did model those in IMBA and ended up adjusting also for recycled uranium and we ended up calculating a dose of approximately 80

millirem, depending on the date of diagnosis and the type of cancer. So that was a little bit of a difference in how we did things.

Okay, and then for environmental intakes, NIOSH assigned the maximum Hanford intakes while the EE was unmonitored. It ended up being less than a millirem. NIOSH went ahead and assigned that in IREP as a lognormal distribution with the GSD-3. SC&A on the other hand did not model environmental doses, because we deemed that the EE was monitored throughout their employment.

So really moving on to decision points regarding professional judgment, the biggest difference here was the need for an apron correction factor for the EE's limited applications working with a leaded apron. The exact quote from the CATI was one or two times around the years that are highlighted there, and they did not recall wearing a dosimeter but assumed it was covered by a Tyvek suit and the leaded apron.

The Hanford TBD doesn't acknowledge any adjustments for apron correction factors, so NIOSH applied the apron correction factors from the Pantex TBD, and that's just a correction factor of 1.5 to a single dosimeter result in both of those years. SC&A did not acknowledge that, because it was an isolated incident. That was the biggest professional judgment difference that we saw.

So in summary, you'll see there on page 23 is our comparison of total dose estimates and PoCs. Overall, they're fairly close. The biggest difference was how SC&A treated the uranium, which is the majority of the differences you'll see here. But our PoCs again, and overall doses were very close, and if you go through here, there's just a summary of the differences that we discussed. Are there any questions?

Chair Kotelchuck: Questions?

Member Lockey: Hi Rose, Jim Lockey. How are you?

Ms. Gogliotti: Great.

Member Lockey: So my only question was the SC&A. So you just stated that there was internal, ongoing internal monitoring going on, but NIOSH assigned the constant exposure rather than using internal monitoring for the time. So I just didn't understand that.

Why would one do -- if there was, if there was continuous, if the person had internal exposure monitoring going on ongoing, why wasn't that used? Why didn't NIOSH use that? This is for plutonium and strontium, I think, and cesium.

Ms. Gogliotti: I'm a little confused about what you're asking. With regard to the environmental intakes or --

Member Lockey: No. This was internal exposure. NIOSH assigned a constant exposure to environmental levels, to environmental levels of cesium, plutonium and strontium, and you used actual internal monitoring data I think.

Ms. Gogliotti: Oh, for this? That's the environmental. No, we -- we just used the monitoring that was available for the EE. So they were not monitored for cesium directly or strontium directly, though they did have whole body counts.

Member Lockey: So that's how NIOSH assigned that --

(Simultaneous speaking.)

Ms. Gogliotti: Yes. We came to the conclusion that if

the EE was at an exposure risk of those radionuclides, they would have been monitored specifically for them. Since they had monitoring records throughout their employment, we determined that they were adequately monitored. NIOSH just assigned site-wide maximums. In either case, especially in this case late time period, it --

Member Lockey: There's no difference.

(Simultaneous speaking.)

Ms. Gogliotti: -- physical doses, mm-hmm.

Member Lockey: Yeah. I understood that the doses would have been smaller in the late period, but why did NIOSH take their approach and why did you take your approach? I guess that's what I'm trying to understand.

Ms. Gogliotti: I guess you could call it a professional judgment. When my dose reconstructor was doing this, they looked at the records and saw that the EE was monitored consistently throughout their employment. So we thought there was no need to account for any environmental intakes, because they were monitored consistently.

NIOSH determined that, they adopted the conclusion that they might not have been monitored for cesium or strontium, so they went ahead and assigned it. As someone who looks at these regularly, I think we knew also that the doses would be insignificant at this time period, which probably played a factor in coming to that conclusion.

Member Lockey: So it has been more like --

Mr. Barton: The total doses are less than one millirem, which are generally left off of the IREP input. So in this case, NIOSH took the extra step and

put those very small doses in there. I agree with Rose. I mean in this case, it is a professional judgment and since the doses were less than 8 millirem, those are generally discarded within the program.

Member Lockey: Right, right. So the judgment is merely based on the time period they were being monitored and the very low exposure levels. So that I understand. That means if I was sitting there, it's not going to make any difference one way or the other. So whatever happened, whichever pathway you choose is not going to make, it's going to make a difference.

So if I -- so if I understand it, this is, this is the type of approach you would use in the latter type of years, where the exposures are low and make potential differences minimal at best. Is that reasonable?

Mr. Barton: I think that's accurate.

Ms. Gogliotti: I think that's reasonable, unless Scott would disagree for some other reason.

Member Lockey: Okay.

Chair Kotelchuck: Okay.

Mr. Siebert: Well, we're just following our normal process. So, yes, it is less than one millirem and could go either way. We have tools that automatically assign things quickly, so it doesn't add anything to us to actually put that in there. So that's why we include it.

Member Lockey: Okay. I understand. Thanks.

Chair Kotelchuck: Good, good. So fine. I don't have any questions there. Excellent agreement again. So other comments or concerns or questions?

Hearing none, I think we should accept both dose reconstructions as scientifically valid and claimant-favorable. Do others agree with that?

Member Clawson: I agree.

Member Lockey: Yeah, I agree. This is Jim Lockey.

Member Valerio: This is Loretta, I agree.

Chair Kotelchuck: Okay, fine. So I think we're finished with this one. And the only question I have is, Rose, does it seem okay to start discussing your report, the SC&A report? We clearly will not finish it before lunch. Well, we may not finish it before lunch, but you're -- you're on all day today, so how are you feeling? Do you feel like you need a rest or a ten-minute break or something? I would -- normally, we'd have lunch.

Ms. Gogliotti: I don't know that we need to break for lunch.

Chair Kotelchuck: It's early. Normally, we'd break around 1:00, so we have a couple of hours. But again this -- I'm asking because you happen to have -- you're the rapporteur for today, so you ready to go on?

Ms. Gogliotti: I'm fine to keep going.

SC&A "Summary Dose Reconstruction Information"

Chair Kotelchuck: All right, wonderful. All right. Let's talk about the Summary Dose Reconstruction Information from March '22.

Ms. Gogliotti: Okay. So, just as a refresher, in our September meeting, at the end of the meeting, we discussed SC&A giving some summary statistics to help with the selection of the 31st set of claims, and

at that time we requested some information from NIOSH. Due to all the cybersecurity things going on, NIOSH was not at the time able to provide us with updated statistics.

So we went ahead and used the most recent information that we had, which came from 2015. So it's fairly old but just as a way of summarizing the population of claims that NIOSH reviewed and comparing that to what SC&A had reviewed, and we did discuss that memo in the January meeting. The Subcommittee came to the conclusion that they weren't ready to adopt any of the recommendations, but they wanted to talk about it a little bit more.

So you selected the 31st set of cases without taking these into account. Since then, we did get some additional information from NIOSH. Not updated information on everything, but updated information. So I went ahead and updated our recommendations and figures based on the newest available information that was, came from NIOSH.

So that memo is what you see on this screen here. It came out in March of this year, and Dave plans to discuss this at the upcoming Board meeting. So this is just kind of a preview of the slides that he plans to present, but I think it might make it easier for everyone to see if I just pull it up this way.

Chair Kotelchuck: Okay, sounds fine. Let me ask you just informal, is this -- to the extent this is a public meeting, it hasn't come through the approval process.

Ms. Gogliotti: This has been PA-cleared and is posted on the website, or will be posted on the website --

Chair Kotelchuck: On wonderful. It's already PA-cleared. Terrific. I didn't -- I'm glad to hear that. Then it's fine. Move on, that's excellent.

Ms. Gogliotti: Yes. I had to work overtime yesterday and got it through PA clearance and --

(Simultaneous speaking.)

Chair Kotelchuck: Okay, very good. Give them a thank you from me.

Ms. Gogliotti: I will. Okay. So the Subcommittee doesn't have any formal criteria per se. Their goal has always been to review, is currently to review approximately one percent of the data evaluated by NIOSH. Historically, that number was higher but at some point in time --

Chair Kotelchuck: May I just at this point just interrupt to say no, at least one percent.

Ms. Gogliotti: Yes.

Chair Kotelchuck: At least one percent review. Okay. Do go. Do go ahead please.

Ms. Gogliotti: So that's been really the only goal. However, the Subcommittee has focused predominantly on cases that were 45 to 52 percent PoC, and that was because they were most likely to contain best estimate assumptions. We've also made an effort to be representative of the types of cases that NIOSH sees, so adequate representation of DOE and AWE facilities.

We've looked at making sure that employment dates covered a range of (audio interference) that an individual might work at these facilities, and making sure that we're looking at all career durations. So, the length of time that a person was employed, making sure that we're looking at all sorts of occupations.

Fairly recently, the Subcommittee also added gender

to the things that we consider when we're selecting cases. It's just something the Subcommittee wanted, to factor gender in. We didn't have any criteria on how many females versus males we selected, but gender was -- decided to include it.

And then we also considered cancer diagnoses. So the types of cancers that were experienced by the individuals that were applying. And so here is the first figure that I did a comparison of. That's the PoCs. As I mentioned, the Subcommittee has been focusing on close to the best estimates.

So you'll see in the light blue here on the screen the Subcommittee is definitely over-representing the number of cases that we look at that fall into that window of best estimates. At the same time, we're not reviewing as many cases that have the lower PoCs, especially those less than 20 percent.

Historically, that's been a conscious decision, and that's because these lower PoC claims we feel that, or the Subcommittee in general, have identified that if there's an error in those cases, it's less likely to impact the overall compensation decision.

So in looking at that table, we did come to a recommendation that we would recommend expanding the cases that the Subcommittee looks at, from the range of 45 to 52 percent instead of going lower, closer to 40 percent to 55 percent. That way you're still seeing cases that are using best estimate assumptions, which is widening the pool that we select from.

I will say that I was little surprised with the 31st set cases. We did look at some wider PoCs, and we ended up with a lot more compensated claims than we usually look at, and those tend to use underestimating assumptions and they're more

partial dose reconstructions.

So if the Subcommittee is worried about this, I would suggest focusing specifically on the best estimate claims, or making some sort of criteria regarding that, just to make sure you're still seeing the best estimates rather than the underestimates.

Okay. We also looked at the decade of first employment, and here you'll see that the Subcommittee has looked at --

Chair Kotelchuck: Excuse me, Rose. Excuse me, Rose. Ms. Gogliotti: Sure.

Chair Kotelchuck: I wondered if it wouldn't make sense to talk about, for the group to talk about the recommendations that come and in particular that one.

(Simultaneous speaking.)

Ms. Gogliotti: You know what? I think that's a great idea, actually.

Chair Kotelchuck: Yeah.

Ms. Gogliotti: Let's do that.

Chair Kotelchuck: So why don't we just go back to it, and have a discussion? And I believe that that's something that we need to get approval for, and --

Ms. Gogliotti: Okay.

Chair Kotelchuck: Okay, great. I would say expanding the range -- also, remember, we're trying to make sure that we get -- that we do sampling from a wide range of facilities, both the small -- well, the large facilities, but also the small facilities. And that (audio interference) the smallest facilities ignored.

Member Beach: Dave, this is Josie. You broke up quite a bit so we only caught, or at least I only caught, part of what you were saying.

Chair Kotelchuck: Oh, okay, all right. Thank you for saying that. I'm on -- I'm on wireless. Let me, let me bring this -- can folks hear me now better? Okay, great.

Member Lockey: Yes.

Chair Kotelchuck: Good. Well, what I'm saying was by widening the range of PoCs that we're looking at, we also have a better chance of making sure that we have a good distribution of both large and small facilities with larger and smaller numbers of claims. Particularly, I want to make sure that we don't miss the smaller facilities as we go on, and we'll talk about that a little later, too. That will come up.

So I think there's a lot of good reason to expand, and I do also agree with Rose, that when you start to get up near 55 percent PoCs, oftentimes once it's clear that the person who's -- the claimant whose PoCs are above 50 percent for efficiency for the NIOSH folks, they will often cut off the review because once you're above 50 percent, if it's further above 50 percent it doesn't matter. They're compensated.

So when we go into the 55 percent range, we will get a number of them that will not -- the two will not necessarily -- the NIOSH and SC&A will not necessarily agree because one of them, particularly the NIOSH people, cut off early.

Ms. Gogliotti: Dave?

Chair Kotelchuck: Yes.

Ms. Gogliotti: I just want to point out that, this is for normal blind or not blind reconstructions. It's for our

standard dose reconstructions. So we're just evaluating what NIOSH did and SC&A doesn't do our own dose reconstructions.

Chair Kotelchuck: Right, right, okay, true. Oh you're right, you're right. No, no, you're right, that if we're doing the blinds, we have to worry about incomplete dose reconstructions, and that's not the case here. But this will give us a larger, a larger scope of cases that we're going to look at, the 40 to 55 percent.

Ms. Gogliotti: And this is just for targeting. I don't think that --

Chair Kotelchuck: Yeah.

Ms. Gogliotti: --it would be wise to not look at any low PoC or any high PoC cases, because they are a significant part of the claims that are filed. But I think it's important that we target these closer to 50 percent.

Chair Kotelchuck: Yes, yes, I agree, I agree. Comments from Board, from Subcommittee Members, or the truth is comments from anyone, staff, anyone who's on the line? Is that something? How do people feel about this?

Member Lockey: Jim Lockey. I think we should explain the dose recommendation. I think it's a good approach.

Chair Kotelchuck: Yeah, yeah.

Member Beach: This is Josie. I agree with that. I think after this, like Rose pointed out, the Set 30, you can see that we do have a need to expand.

Chair Kotelchuck: Yeah. That sounds good, and then also this will come in also under gender later, because as we expand, I'm hoping that we'll get a

better gender balance, and we'll come to this in a later part of the discussion.

So, others, other folks if they want to make comments or -- people, are all the other Subcommittee Members ready to make that, make this and expand the range and of course we'll get approval from the Board?

Member Valerio: Dave, this is Loretta. I would agree that we need to expand a little bit.

Chair Kotelchuck: Yeah, okay good, good. Brad? Brad? He may be having a little trouble.

(Pause.)

Chair Kotelchuck: Have we missed anyone? I think that's -- there are five of us and four of us have spoken. Brad, are you on the line?

Member Clawson: Yes, I'm sorry. I went unmute and hit hung up. I was trying to tell you that I think -- I wanted to tell you that I agreed with what was being said, and I think it's a good idea to expand our checks and I appreciate this information because it kind of shows us what I'm doing. I apologize. The buttons are right next to each other there.

Chair Kotelchuck: Oh, that's -- no apologies needed. We just want to get your input. So I think we're all in agreement on this, and we should -- we approve, we should approve and then ask the Board. I'm not so much sure that we need to ask the Board's permission, but we want the Board to be informed and consent, if you will, to this.

Member Clawson: Dave, I think the thing with the Board is we just need to let the Board know what we are doing and why we are doing it and what we're expecting to get out of the results is about it. It's

basically up to us as a subcommittee to be able to make these decisions. But it's just informing the Board more of where we're centering our looks.

Chair Kotelchuck: Okay, that sounds good. That sounds good. All right. So I sense we all are in agreement about expanding. Are there any other concerns or any staff folks online, in addition to Rose, who want to make comments on this? Grady or Scott, you know, seems reasonable to you?

Mr. Calhoun: Yeah, this is Grady. It seems completely reasonable to me, yes.

Chair Kotelchuck: Yeah, okay, good.

Mr. Siebert: I agree with Grady in every way, shape, and form.

Chair Kotelchuck: All right.

(Laughter.)

Mr. Calhoun: Now that's a good contractor right there.

Chair Kotelchuck: Right, right. Okay, fine. Thank you. So it's now, we have approved. And now let's go on to the next recommendation. Rose?

Ms. Gogliotti: Okay. So although we don't generally target the decade that the claimant was first employed, we do look at it and we do report it to the Secretary when we make our recommendations and report back to the Secretary, the decade that an EE was employed.

So I did pull that up here. NIOSH did not provide updated statistics for this figure. I think we can assume that claims have been filed in the last ten years. Both of the claims that we looked at today

were filed in that time period. So these numbers would be expected to shift a little bit. I would probably expect the table to shift down a little bit if I had to guess.

In any event, this is the most recent data that we had available from NIOSH, and so I've broken down the cases that we evaluated. You'll see here that we're doing a great job of representing claims that were filed in the 1960's and earlier, but as a result of that, we haven't looked at an adequate number of claims where the initial employment dates began in the 70's and later.

So our second recommendation was just to target these later claims, just to make sure we're evaluating the broad scope of claims.

Chair Kotelchuck: Yeah, very good.

Ms. Gogliotti: Did you want to talk about this one further, or do you want me to talk about --

Chair Kotelchuck: Yeah. I mean I -- yeah. If we can go back to the, to the graph, the chart. This was, this was really very nice and it's no surprise that, you know, as we were working, we often, we started and we looked to people who had many, many years of work in the industry. So we were, we compensated. We evaluated folks that were from the 40's, 50's, 60's.

Now we're, you know, we are sliding back now on the more recent claimants, and this is a good recommendation and something we should look at, pardon me. So I don't know that, if there's any other -- I appreciate Rose bringing this to our attention, and then we will try to choose a little bit more from the more recent claims that have been filed. It's good advice to us. Any reason that anybody -- any further comments about it or are --

Member Clawson: This is Brad.

Member Beach: So since we're going to the later cases, we still will be seeing some of the earlier ones if those are available and if it's pertinent to what we're discussing; correct?

Chair Kotelchuck: Oh sure, sure.

Ms. Gogliotti: Yes, and I think that we need to keep evaluating representatives, but I think we just need to try to make it a little more representative by selecting claims with employment that begin later.

Member Beach: Yeah. That makes perfect sense to me, thanks.

Chair Kotelchuck: Right, and I think it's just -- it gives us -- it gives us something to consider as we do our individual selections for cases from the different sets. I appreciate and I would say personally I appreciate Rose your bringing this to our attention. It's a good and we will -- it will help influence our selections, to make this a more appropriate sampling of the cases that NIOSH has evaluated.

Is there any other -- this is not hard and fast, but this is a suggestion to us. Any other comments or --

Member Clawson: This is Brad. I think this is good information for us to be able to -- be able to evaluate, and also for NIOSH to be able to, when they pull these for us, to review. It gives us a little bit better view of what we've already kind of hit pretty heavy. So I think this is good information.

Chair Kotelchuck: Yeah, agreed, agreed. So, folks, unless somebody -- would somebody -- unless somebody would like to have a further comment, maybe we should go on.

Okay. Rose?

Ms. Gogliotti: Okay. I also looked at the duration of an EE's employment. So the population of claimants that NIOSH has evaluated versus what we have look at so far, and here NIOSH is the dark blue and we are the light blue, and you'll see that we're doing a great job of looking at cases with longer employment periods. So 30 years plus, actually 20 years plus even, which in a sense makes sense.

You'd expect case with longer employment to have more exposure, thus to have higher PoCs, and so I think that this was not an intentional selection but it just sort of happened. But we are falling short of the shorter claims. So I would just recommend that we attempt to target some shorter employment period cases going forward.

Chair Kotelchuck: Yeah.

Ms. Gogliotti: So that is our recommendation.

Chair Kotelchuck: Sure. Shorter employment. Also shorter employment from, often from decades, one or two decades back because of, because of the latency period of cancers from exposure, or the latency period of cancers from any exposures on the job. So good, good.

Again, makes fine, good sense. It's somewhat related to what we were doing in the Recommendation 2. Those two are related. So is there any comment or people, any further comment about that?

Hearing none, let's go on.

Ms. Gogliotti: Okay. So, as we mentioned, the Subcommittee has been making a more concerted effort to select more female claims. We weren't looking at that initially and we realized that we were

being -- under-representing the female claimants. So the Subcommittee started looking at gender when they were selecting cases.

However, this chart will just show you the percentage of claims that have been female, based on file dates, and here you'll see it progressively increases, and that kind of makes sense based on what we know about our population of claimants. More women were entering the workforce, so you'd expect more women to be filing the later we go on in the program.

Here now, since 2015 roughly a quarter of claims have come from female employees. Even though the average number is still low, the 14.3 percent, we're seeing more female claims come through on NIOSH's end. Based on that, SC&A is recommending that the Subcommittee pick a target number of claims involving a female going forward.

I know the very first set only has four female claimants, and we do recommend going up to eight because the Subcommittee's only looked at -- currently 62 of our 588 claims that we've looked at have been female. So we are under-representing them thus far. So we do recommending increasing the number of female claims that are selected for 30 cases to eight, and that's to get closer to the numbers that NIOSH is seeing.

Chair Kotelchuck: Now eight out -- right. I had this and I've had a little bit more thoughts about, even though I know you and I, Rose, talked about this. But eight out of 30 represents I think it is, what is it 20, about 26.7 percent does it not? I didn't, I didn't put the percentage down.

Ms. Gogliotti: Yeah. It's about 27 percent.

Chair Kotelchuck: Yeah, and 27 percent is the percent of female claimants that are current in this

graph. So we actually have to move ahead beyond that if we want to know -- we don't -- also it's not clear that the number of female claimants has peaked. It may still be going up.

So we don't want to pick -- I mean if we pick eight out of 30, then we're just picking the same percentage that we have currently, and that may rise. Plus we're behind from the past. So actually I've been thinking it might make sense to say nine or more, at least nine. That is, we need to start selecting at a rate greater than 26.6 percent, to make up for the past and possibly plan for the future.

I mean at some, at some point this percentage will level off, percentage of females will level off. But we don't know what level it will level off at in the future. So I'm sort of thinking that we might consider nine, even ten rather than eight, which is at least a -- is certainly a proper and conservative number.

What do you think? What do folks think? And also what do you think, Rose? I mean we've talked about this and eight seemed fine. But I'm actually thinking now maybe we should say nine or ten per set of 30. Folks, what do you think, and also what do others think of that?

Member Lockey: Well, this is Jim Lockey.

Ms. Gogliotti: Let me -- go ahead.

Chair Kotelchuck: Jim, yes.

Member Lockey: Rose, let me ask you, let me ask you a question. I agree we should be increasing the female participation. You know, maybe Brad or Josie can pipe in here.

I know the female participation has probably increased in actual production jobs out in the --

rather than office jobs. So I want to make sure that the cases we get are predominantly females that are working in a production job task. Is that, is that a concern or is that -- that will happen just automatically?

Ms. Gogliotti: I think that's a valid concern.

Member Beach: Yeah, and I was going to say with -- oh sorry Rose, go ahead.

Ms. Gogliotti: Oh, I was just going to say that it's not, it's not going to happen automatically. But when NIOSH provides us with their claim information, they do also provide us with the occupation. So that can be factored in. We didn't make a specific recommendation regarding employment types. We certainly could add something like that if that's something you're interested in, to make sure that you're getting someone more in an operational profession, if that's what you're interested in.

Member Lockey: No. I want to make sure that Josie and Brad think that's appropriate.

Chair Kotelchuck: Josie.

Member Beach: This is Josie. I was going to say that I agree that that is appropriate. I also think that with going to the labor years, when it was pointed out more females were in those types of jobs and in the workforce, I think we may see that automatically that there's more women included.

So I agree, it needs to be people that are on the shop floor, not just the secretarial staff. So any way we can make that happen I think it's a good point.

Member Lockey: Right.

Member Clawson: I agree with that. You know, we

can't exclude some of the office ones, either, which is we've had several claims of these people have been compensated in that situation, too. So I think I agree that -- I think it will work out in the end, but I would like to know, like you said, put a little emphasis on the production side of it, too.

Chair Kotelchuck: Right, right. Can we put that in the statement? If you'll go down to the next slide, Rose. That's it, your recommendation. A minimum of eight females to increase female representation, like something like "comma, with emphasis on female claimants who are working," how do we put it? "Who are, whose occupation, who are in the industrial occupations," something like that.

Member Lockey: Brad and Jose called it operational, operational job tasks, right Josie?

Member Beach: Yeah, correct.

Chair Kotelchuck: Operational job, okay, okay.

Ms. Gogliotti: You can certainly add that to what you want to adopt. If you remember, based on the posting deadlines that we ran into, we agreed that we were just going to leave it with the SC&A recommendations and you were just going to verbally convey the Subcommittee's --

Chair Kotelchuck: Right. Well, right. That's exactly right. We, I had to prepare, I thought that it would take, might take up to two weeks or a week and a half, to get slides prepared for next Thursday.

And so I put in and we talked about this, the SC&A recommendations. In fact, we are now in the process of looking over and approving these and moving some things toward the Board or informing the Board about this.

So we can -- since these are approved, I'll use them and I can just talk verbally. Since we're getting, we're just getting a report, informing the Board that we will seek to -- we will seek to have industrial, more industrial occupations among the female claimants, or seek to select them.

Do we want -- folks, do we want to stick with eight, at least a minimum of eight females? And that's certainly proper. Or do we want to just say nine or ten or something like that, moving ahead of the current percentage of female claimants?

Member Beach: Dave, I don't -- I think it's okay to stick with a minimum of eight, but shooting for a higher representation.

Chair Kotelchuck: Yeah, yeah.

Member Beach: If that number is nine or ten, that's fine.

Chair Kotelchuck: You know what? Again, I'm not going to change the slide because I have to get it approved and, you know, go through the process, and so why don't I just say that verbally in my report, okay, to the Board? So we don't need to change anything. I can just say it, and I agree with you Josie. We'll say a minimum of eight and we're looking for in fact perhaps nine or ten. That sounds good.

Member Beach: That makes sense.

Chair Kotelchuck: Yeah. Further thoughts or anything, comments?

Member Lockey: Yeah, I'm good with that. Jim Lockey.

Member Valerio: Dave, this is Loretta --

Chair Kotelchuck: Okay, go ahead.

Member Lockey: I just said I'm good with it. I'm good with it, David.

Chair Kotelchuck: Good, good, good. And Loretta, what did you say?

Member Valerio: I agree that we should have a minimum of eight, but push for more. I'm thinking about, you know, the reviews that we didn't have to choose from. I don't recall that we have a lot of female claims, but I think eight as a minimum is very appropriate, it's reasonable. But if we can get at least nine or ten to have that representativeness, that would be a good thing.

Chair Kotelchuck: Sounds good.

Member Valerio: So I'm fine with a minimum of eight.

Chair Kotelchuck: Okay, sounds good, all right. And then I think we're, we're approved, you know, with this, and I will -- for the report to the Board, I will incorporate both of these focus on the industrial jobs and seeking a minimum of eight, seeking more, nine or ten or whatever is appropriate.

Member Lockey: Dave, Jim Lockey.

Chair Kotelchuck: Yes.

Member Lockey: I just thought of one potential problem.

Chair Kotelchuck: Okay.

Member Lockey: It's a minimum of eight per site; is that what we're saying?

Chair Kotelchuck: Per set, per set.

Ms. Gogliotti: No.

Member Lockey: Per set.

Chair Kotelchuck: We choose, we select sets of 30 cases.

Member Lockey: Right. I think that's fine. I was just thinking, that's fine. Okay, gotcha. Thank you.

Chair Kotelchuck: All right, good. Hey, we're moving right along on this. This is Recommendation 4, we're in agreement. So let's go on.

Ms. Gogliotti: Okay. So this is not something that the Board has ever consciously discussed, but with the 27th and 29th sets, which are the most recent sets of non-blind DRs that we've reviewed, and that was done in 2018 and 2019, we had a lot of fairly older cases come up. Actually, seven of them were around a decade old.

And so I thought it was important that the Subcommittee going forward focus on newer claims. Those are claims that were completed by NIOSH fairly recently, within the past few years. I think those are the most important for the Subcommittee to focus on, because those are the cases that are going to see the current procedures and the current guidance.

And we really can't do those cases. I'm not saying that there's no value in it, but they're using older procedures and older guidance. A lot of the time the guidance in them that's used is no longer the appropriate guidance to use. And especially with the smaller claims or the smaller sites that we see, and thus any case that we're going to look at for that particular site, it's important that we're seeing the most current guidance available.

And that way if there's a problem with the guidance or a problem with the TBD, that problem is being identified quickly and that way NIOSH can get these things fixed. So our recommendation was to focus on claims that were completed within several years --

Chair Kotelchuck: Right. Point well taken. Right, and I appreciate your thinking about that and giving us information that will do a better job, and not have issues that come up where we are talking about one person, one group doing dose reconstruction and then our review of the dose reconstruction that was from years ago, put where protocols have changed, where guidance has changed. So, to me, excellent idea and a thoughtful suggestion to us. Others?

Member Beach: I absolutely agree with that Dave. This is Josie.

Chair Kotelchuck: Yeah, yeah.

Member Lockey: Jim Lockey. I do, too.

Member Clawson: This is Brad. I'm good with it.

Chair Kotelchuck: All right.

Member Valerio: Loretta, I'm good with it.

Chair Kotelchuck: All right, and we're all good with it and excellent, okay. Well, let's go on to this last part. We may be finishing a little early folks, so let's, let's do it. Rose, go ahead.

Ms. Gogliotti: Okay. Again, while it's not something that the Subcommittee has put in their exact criteria, we've made an effort to be representative of the AWE facilities as well as the DOE facilities, and our goal is to represent at least one percent of the claims that NIOSH is evaluating.

And so in order to get a representative sample, we do also look at the number of cases that have been reviewed for each site, and here we selected on all the sites that had at least 100 claims. So one percent would be one claim evaluated by the Subcommittee. And then we looked at the ones that were under-represented thus far.

So if sites that needed at least one Subcommittee review in order to, for the Subcommittee to have reviewed one percent of the DRs from that facility. From that list, we came up with six sites that were currently under-represented by our reviews. Those were the Kansas City plant, Portsmouth Gaseous Diffusion Plant, Bethlehem Steel, Wah Chang, Iowa Ordnance Plant and Tonopah Test Range.

I can say that the most recent set did have cases selected from Kansas City Plant and Portsmouth, but we're still under-representing them. So our recommendation was simply to, when possible, select from these sites, just to get a more representative pool of claims that we've evaluated.

Chair Kotelchuck: Right, and if I may now add Rose, if we go back to the -- to the last slide, the numbers that we are, and there is a really detailed table by plant of all of the facilities that are covered, and you have that in the full report.

I'm not going to go over it here. We are not going to go over here, nor put it out because clearly it has material for when you have only a few, a few reviews we -- I think there are issues about confidentiality.

So but that table is really quite useful, that's printed in full. These are now profiles of that table. I wanted to note that for all six of the facilities with at least 100 claims, what we're talking about are range from -- that we are two, we need anywhere from two to

seven reviews for each, for these six plants.

So we're not talking a large number of reviews that we are under, have under, a large number of reviews that we need to make to get up to one percent for that plant.

So these are small numbers but important, and of course our overall goal, as we said, as we've always said, is one percent of all facilities. Some may actually have to, you know, we have to do more work and it may be over one percent. But if we want to get one percent overall, then clearly if we have one percent by each individual facility then we certainly have one percent overall.

So these are, this is a summary of the points in the table, not the previous slide but the table in the report, and those are -- those are marked off. They're colorized. So this was really interesting. It's really interesting to me and I'm sure it would be really interesting to you, and to get an idea about how well we're doing plant by plant over these many years.

Grady, I'm sure you and Scott will be, are interested and have been -- were interested in looking at this, I hope. So I certainly, this is useful and when we make selections, when we see any one of these six plants or six facilities I should say, and when making our next set of selections let's try to incorporate them for, for our Subcommittee review. So okay. I've talked a long time on this.

Discussion

Mr. Calhoun: Dave, this is Grady, and I think that the fact that you're going to expand the range of the PoCs you're going to be looking at, that will probably offer us up more availability of these smaller sites, too. I mean, in general, all sites, but I think that'll help that, too.

Chair Kotelchuck: Yes, yes, exactly what I -- what we -- what I'm, what I was hoping and referring to when we talked about expanding the range early today. Yep, agreed. Further comment anyone?

Member Lockey: Rose, Jim Lockey. When I looked your tables of all the facilities and I look at the slides, I mean just is this to inform me about the thinking process here. If a facility has greater than 100 claims and we're looking at at least doing greater than one or greater in regard to review, what about the facilities that have less than 100 and had more review?

Chair Kotelchuck: Next slide.

Member Lockey: Is that because -- is that because of confidentiality issues or is that --

Chair Kotelchuck: No, no, no. Jim, we're -- let's go to the next slide, because we exactly looked at that. How about the people who are under 100?

Member Lockey: Right.

Ms. Gogliotti: Yes. Well, obviously, if the site hasn't had 100 claims, then one percent wouldn't be a full employee, and so the Subcommittee wouldn't be looking at those claims, which I don't think is appropriate obviously also. I think that no claim or site should be off limits to the Subcommittee or outside of the realm that the Subcommittee looks at.

But because they're the smaller facilities, we can't limit it to that. So David thought it was important to also kind of group them all together to see where we fell. The Subcommittee thus far has reviewed in the smaller claims, so sites with less than 100 claims we've reviewed 72 of the roughly 3,100 claims that have been filed.

So that's roughly 2.3 percent of the smaller facility claims. I think that we do need to continue to select from those, even though we are over-representing them, just because these smaller sites do need to be seen still. So it kind of falls outside of the one percent that we normally use for the larger facilities.

Chair Kotelchuck: Yeah, and I am -- I mean, I was particularly pleased with this. We commented about this in our last two reports to the Secretary, and that is I want to assure people who file claims from small facilities that we are taking a look and reviewing them also at the one percent level.

In fact, we've exceeded that and I'm very happy to say that, because it would have been easy to overlook these, because we get relatively few claims, that we haven't, we haven't overlooked them. We've done a good job, beating my own drum.

Member Lockey: David, Jim Lockey. I'm good. I'm glad you asked that question, but if you were to stratify that less than 100 claims and look at those facilities that have ten or less, if I remember looking at the chart there were a lot of facilities with -- that had no, no representation. I was wondering whether, whether there should be at least one representative, one review at each facility at a minimum. But maybe not. Maybe that's a confidentiality issue because they're so small everybody would know who that case is.

Chair Kotelchuck: No.

Member Lockey: But if you stratify that less than 100, you're going to get some facilities that if you stratified at 20 or 10, you're going to get a lot of facilities that's had no reviews.

Chair Kotelchuck: By the way, and that is absolutely correct. I mean there will, there are plenty that have

had no reviews. So if we go back to -- could we go back to the last slide?

(Simultaneous speaking.)

Chair Kotelchuck: There will be, and we can start -- I think you raise an interesting question, and we can apply this further. Any one of us can simply go over this, or Rose you and I should take a look at this. But I wanted to make sure, just in the bigger picture, that we haven't -- we're trying to keep up. When will we ever get to the point that there will be a smaller number of claims, a small number of claims and we've never reviewed them, let's say ten claims.

You know, who knows how long that will take. And I mean, I guess there's a question of should we -- should we at some point in the future say to ourselves that we want to make sure that there's one review from every single facility that's covered? And that may be --

Member Lockey: Yeah, that was sort of -- that was sort of my thinking, you know but --

Chair Kotelchuck: Yeah, yeah.

Member Lockey: It might a confidentiality issue in small populations about who's being reviewed, so that's an issue.

Chair Kotelchuck: No, I don't --

Ms. Gogliotti: Yep, it could be a minor confidentiality issue, but I think the bigger problem with focusing, if you were make that a long-term goal, is simply that we're looking for a broad range of cases. We're only looking at a very small number of cases, so we're hoping to get cases that if there's an error in one, it's not an isolated error. It's a -- if we're finding errors, we're finding something that's impacting lots of

cases.

And when you get down to these smaller facilities, you have a much smaller pool that you're looking at.

Chair Kotelchuck: Right.

Ms. Gogliotti: And not to say there's not value in that, but it's -- it's just trying to get the most bang for your buck as a subcommittee.

Chair Kotelchuck: Well, yeah. If we really did all -- if we made a rule that we have to do one for every single site that has any claims, first in my -- from my perspective, there is no confidentiality issue in the sense that claimants, claimants do not know that they happened, that their dose reconstruction done by NIOSH will sometime in the future be looked at by our committee.

Our committee, the people who are being reviewed in the one percent don't know it, and there's -- there's no mechanism or need to inform them. It's an internal -- I mean what we're doing is an internal check within our own efforts, to make sure that we're doing the right thing and the results of it is certainly public and that's --

But we could consider that, but as I -- the other part of it is that I think that if we do try to cover all those small facilities and make sure we do one, we will fall under one percent for an overall, our overall goal of one percent of all claims, because it will take an enormous amount of time.

I mean, we've only done 588 claims in all our years, which I reviewed 588 claims, which comes to about one percent of 50,000 plus claims reviewed. So I think it may not be feasible, but it's certainly -- you raise an interesting point, and I would like to ask Rose if, or I will stratify this to 20, to 10, and see

what we get, and see where that might guide us. We could do that for our next meeting.

Ms. Gogliotti: I can certainly do that for you and give you some summary information if you were interested.

Chair Kotelchuck: Why don't we do that? Yeah, it would help. It would be good.

Ms. Gogliotti: Okay.

Chair Kotelchuck: What do other people think about this, about stratifying? I think it's a good idea Jim, and good. Anybody have any further? We're going over one o'clock, but we're coming to an end, so any other comments?

Ms. Behling: This is Kathy Behling. I'm wondering if I might be able to comment?

Chair Kotelchuck: Yes, yeah. Please do.

Ms. Behling: Okay. One --

(Simultaneous speaking.)

Member Clawson: How are these smaller --

Ms. Behling: I'm sorry.

Member Clawson: The smaller facilities, the smaller facilities, some of them are, you know, they're just -- there's not that much reconstruction. A lot of them are uranium facilities. We didn't go through that. I understand what we're saying, but I -- my personal feeling is not to get tied in it that bad, because it's the bigger ones that, you know, are going to get most of the attention. I realize that.

But we do need to look at them, and it would be best -- and you know, I just don't want to hold us to a --

that we have to do this. I think when we get an opportunity to be able to bring one in or something like that, we should look at it. But that's just my opinion on it.

Chair Kotelchuck: Yeah, yeah. Other thoughts, comments? By the way I agree, Brad.

Ms. Behling: And again, this is Kathy Behling. If I can make a comment.

Chair Kotelchuck: Yes.

Ms. Behling: One of the things that we do focus on is the dose reconstruction methodology for the bigger sites, and sometimes we don't get to see maybe some of the methodologies that are used on these smaller sites. So by selecting some cases from these smaller sites to have less cases involved with them, it may be -- give us an opportunity to look at the methodology that NIOSH is using --

Chair Kotelchuck: Yeah.

Member Lockey: This is Jim Lockey. That's what I was thinking, is that I'd like to see what methodology is used where the data is sparse, and how is it handled, you know.

Chair Kotelchuck: Yeah, yeah. Well, that's a thought because often there is very little data and we are making pretty broad assumptions on these little AWE facilities. And that's, that speaks to looking. That speaks to not necessarily doing every single one, but looking at some or more of them than we do now.

Member Lockey: Right, yeah.

Chair Kotelchuck: Yeah, and I think that sounds -- that may be the right way, it seems to me, the right way to go. Take a few of them, probably some of

them under 20 percent, you know. Good, good. Further thoughts, folks?

Okay. Let's go -- I mean, we're near an end, so I think if I may -- it's eight minutes after 1:00 and it's about time to break up. But let's go to the first slide, which, Rose, you did a moment ago, summarizing or the summary slide, I forget, on the recommendations. There we go.

Ms. Gogliotti: So, overall, we had six recommendations: to expand the targeted PoC range, and that was to 40 to 55 percent; increase the sampling of claims beginning in the 1970's and later; the increased sampling of cases with shorter employment periods, so less than 20 years; select at least eight female claims per 30 set of cases; and select cases completed within several years of NIOSH review; and when possible target under-represented sites.

Chair Kotelchuck: That sounds good, and right. Sorry.

Member Lockey: Sounds good.

Chair Kotelchuck: Sounds good and --

(Simultaneous speaking.)

Ms. Gogliotti: -- we'll talk about the stratification, and see if the Subcommittee wants to do anything with that.

Chair Kotelchuck: Right, right. That sounds good, and I hope you'll be here to do it. I'm referring to the fact that Rose is going to go on maternal leave soon, so however, Kathy Behling, I should tell other folks. Kathy Behling will be working with us with this Subcommittee while Rose is on leave.

But so, anyhow, I will embellish these, if you will, in terms of things that we've said and comments about expanding, and also I will include in the discussion before the Board next week the targeting upon the representative sites and the fact that we, we are going to take a look at the smaller, the stratification, the smaller sites and think about how we might even better target them.

Okay. Is there I think -- so folks, this is what we're going to present, and I think this is what we basically decided with some not so much modification as clarification and expansion. So are we all -- we're all on board on this?

Member Clawson: Yeah, I think -- I think we're headed in the right direction.

Ms. Gogliotti: Yes.

Chair Kotelchuck: Okay.

Member Lockey: Yeah, Jim Lockey. Me too.

Chair Kotelchuck: Good, good, good.

Member Beach: Josie. I agree with that. We are headed in the right direction here.

Chair Kotelchuck: Great, great. Okay. That sounds good and Loretta --

Member Valerio: I'm on board, Dave.

Chair Kotelchuck: Okay. So we're in agreement, and let me just thank Rose from SC&A for a terrific job. It's, this is the first time we've actually looked at our sampling procedure since we adopted the 45 to 52 a number of years ago. And so thank you Rose very much, and I think we're ready to just decide on a future date of our meeting, and then I can say we will

conclude. Rashaun, is that -- sounds okay?

Dr. Roberts: Sure. That sounds fine. So in terms of the next meeting, you know, there needs to be sufficient space between this meeting and that meeting, and also enough time before the next full Board meeting to get presentations and everything together and circulate it. My thoughts are sometime in July, perhaps. Maybe mid-July.

Ms. Gogliotti: If I could jump in? As a Subcommittee, we're pretty much caught up in terms of what we have to discuss. You recently tasked us with the very first set, which won't be completed until early October, and then we'll have to do one on ones and then give NIOSH a chance to respond before we're ready to discuss that case set.

We also are waiting on the DR tools for the final blind from the 30th set. So we don't really have anything to discuss that soon for a full meeting, unless you want --

Dr. Roberts: Okay.

(Simultaneous speaking.)

Ms. Gogliotti: We also don't have the BRS, so we don't have a lot of historical things that are still open. We don't have access to those files, and I don't know when that will change.

Chair Kotelchuck: So it may suggest a meeting in the early fall, which would be after our August Board meeting.

Dr. Roberts: Okay. Yeah, that's fine.

Chair Kotelchuck: Let's see.

Dr. Roberts: So you have a recommendation for

about when?

Chair Kotelchuck: September, October, September. I sort of, I'm anxious that there not be too many months between now and the next time we get together. On the other hand we're doing our work, and we're doing it, I think, well.

Member Clawson: Dave, this is Brad. I think we've got to give NIOSH and SC&A an opportunity to be able to get all this put together for us. I think we'd be lucky if we're into the November-October timeframe before we'd be having --

Chair Kotelchuck: Okay.

Member Clawson: What do you think Rose? Am I talking wrong or --

Ms. Gogliotti: I think Brad you're on the right track. Well, until we have -- the next set comes in or we complete the next set, I just don't know what we would be discussing or what we would be putting on the agenda.

Member Clawson: I just -- yeah. What I was going to throw out is, this really comes down to SC&A and NIOSH. And I think that once they get the materials and they understand what tools they have to be able to work with, because we're still dealing with that, I think, for our next meeting we'll have to wait for them to give us kind of a time period of where we'd be at.

Chair Kotelchuck: I think you're right. I think you're right. May I --

Member Clawson: We can set it, but just cancel. We could cancel it, but we've got too many variables out there right now that we really don't know about, and we're caught up. So my suggestion would be to with

SC&A and NIOSH, to once they get into it, they can give us a time period and it's going to now give us our, what do we need Rashaun, three months to post it?

Dr. Roberts: Yeah, yeah, to develop the agenda and everything. I try to do a three month buffer, yes.

Member Clawson: So that would be my suggestion is, but there's -- we really, we really don't know what we're going to get into with this. With all the security, you know, to get access to everything, I think that -- I think that we ought to put it into NIOSH and SC&A's hands and when they --

When they get ahold of this, they know what they've got. I think they can give us a three month leeway and then we can set up the meeting then.

Chair Kotelchuck: So really Rose or whomever or Kathy and Grady, would they keep Rashaun and me informed or -- about when they're ready, and at worst we'll discuss this at the August Board meeting? Well, we'll certainly discuss it at the August Board meeting where we are --

(Simultaneous speaking.)

Ms. Gogliotti: I think that's reasonable, and again the next set we don't plan on delivering it until early October, and we'll still have to go through the one on ones, and NIOSH will need time to respond following the one on ones.

Chair Kotelchuck: Right.

Ms. Gogliotti: So we're probably looking at very late in this year, if not early 2023 before we have material.

Chair Kotelchuck: Okay. Then let's just say we'll talk

about it at the Board meeting in August, and set a date. We'll all be there I hope.

Mr. Calhoun: This is Grady. Can you make sure that you or somebody, just to refresh my memory, sends me an email or something about what I owe you, because I don't want to hold you guys up. You mentioned something about tools or whatever, so just -- and I'll bet Lori knows already what's going on, but just to remind me. When you get a chance, shoot me an email just so I'm not holding you guys up.

Chair Kotelchuck: Sounds good, sounds good. In fact, actually I think Rose, you were the one who raised it, right, on behalf of SC&A?

Ms. Gogliotti: Yes. We're just waiting on, I believe it's a tritium tool for SRS, to finish one of our blinds.

Mr. Calhoun: Oh, I thought it was going to be much more than that. So I'll, I'll make sure that at least --

Ms. Gogliotti: It might be more than that. Let me confirm that, but I think it's at least that.

Chair Kotelchuck: So you'll have --

Mr. Calhoun: Just shoot me an email, yeah.

Adjourn

Chair Kotelchuck: Very good, and cc me. Okay, folks. I think we're finished, and I know some people are waiting on lunch, while others are waiting on a late breakfast. So thanks. Thank you all. It's a short meeting but a productive one I hope. Okay. Do I hear --

Member Clawson: Take care, everybody.

Chair Kotelchuck: See you, see you. Bye-bye,

everyone.

(Whereupon, the above-entitled matter went off the record at 1:19 p.m.)