Centers for Disease Control
National Institute for Occupational Safety and Health
Subcommittee on Dose Reconstruction Reviews
Tuesday, July 24, 2018

The Subcommittee convened via teleconference, at 10:30 a.m., Eastern Time, David Kotelchuck, Chairperson, presiding.

Members Present:

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

Also Present:

Ted Katz, Designated Federal Official
Nancy Adams, NIOSH Contractor
Dave Allen, DCAS
Bob Anigstein, SC&A
Bob Barton, SC&A
Kathy Behling, SC&A
Liz Brackett, ORAU Team
Ron Buchanan, SC&A
Grady Calhoun, DCAS
Doug Farver, SC&A
Rose Gogliotti, SC&A
Jenny Lin, HHS
John Mauro, SC&A
Beth Rolfes, DCAS
Mutty Sharfi, ORAU Team
Scott Siebert, ORAU Team
Matt Smith, ORAU Team
John Stiver, SC&A

Contents

Proceedings

(10:31 a.m.)

Roll Call/Welcome

Mr. Katz: So, it's 10:30; let's get rolling.

First of all, welcome, everyone, to the Advisory Board on Radiation and Worker Health. It's the Subcommittee on Dose Reconstruction Reviews.

For roll call, I have a quorum here. I have Dr. Kotelchuck, Chair of the Subcommittee, and along with him I have Josie Beach as a Member, Brad Clawson, Loretta Valerio, and Jim Lockey. The other Member, David Richardson, is absent.

And Loretta and Jim Lockey are new to this Subcommittee. So, welcome to them. We'll be glad to have their help here.

Conflicts of interest. I'm not sure that we're dealing with any cases that raise conflicts for any of the Members. I haven't cross-checked them, but I'll just cover all the Members' conflicts. That way, we know, and those conflicted Members, of course, will not engage in discussions for sites for which they have a conflict.

So, for Josie Beach, it's Hanford.

For Brad Clawson, it's INL.

None for Dr. Kotelchuck.

For Jim Lockey, it's Fernald, Portsmouth, Mound, K-25, X-10, Y-12, and W.R. Grace.

And lastly, for Loretta, it is the DOE sites in New Mexico?

Member Valerio: Yes.

Mr. Katz: All of them?

Member Valerio: Yes.

Mr. Katz: Yes, and it's Pantex. And I think that covers it for Loretta right now.

Opening Remarks

Having taken care of that, then, just let me also note the agenda. Today's meeting is on the Board website for the schedule of meetings section of that site. You can go there and pull up the agenda. There's not materials really associated with the agenda because most of the materials this Subcommittee deals with are Privacy Act protected. So, we don't post those. So you can go there for the agenda, but that's about it.

And I think that takes care of preliminaries, other than advising folks who don't normally attend to please keep your phones on mute while you're listening. That's *6 to mute your phone, *6 to take your phone off of mute.

(Roll call)

Mr. Katz: Okay. Then, Dave, it's your meeting.

Chair Kotelchuck: Very good. Okay.

Well, I, too, would like to welcome our two new Members, Loretta Valerio and Jim Lockey. And please feel free to ask any questions about procedure, whatever, as we go on. Every group has its own customs and typical procedures, and we may not realize that we're doing something that -- you know, this Subcommittee always does it a certain way, and you might do it other ways in other subcommittees.

Today, we start off with our blind dose reconstructions. I actually have a slight question for the old-timers on the committee, that is Josie, Brad, and myself David isn't here -- about what order we want to discuss the blinds.

Also, I realize that a number of you from NIOSH and

SC&A also have other meetings and obligations. So, you think you're scheduled for a certain time [today]. Whatever we decide, we have to coordinate with you.

But we have a single blind left over from the discussion at our last Board meeting on the W.R. Grace [case] where, for the first time, we have initially a difference in decision by the NIOSH and SC&A folks. And then we have three more which will, by the way, be the 31st, 32nd, and 33rd blinds that we're looking at. We have two, Fernald, or FMPC; one, NTS, and, of course, the W.R. Grace.

The question I'm asking for, if you will, for the folks who have been on here on the Subcommittee before, is: Do you think we should start with W.R. Grace that we discussed last time or, given the complications, perhaps we should start for the new Members with some more traditional ones that don't happen to have a disagreement. We don't know whether we will approve or not, but they don't seem to present the same kind of problem. On the schedule we have Fernald, two cases, NTS, W.R. Grace. And Grace would go last.

First, Brad and Josie, what do you think in terms of the order that we would like to do it? And, Ted, if you would like to, feed in? Do you have a particular preference? Implicitly, I assumed we would talk about W.R. Grace first, but I admit it's a complicated case.

Member Clawson: I would rather start with that one first. That's a little more fresh on our minds.

Chair Kotelchuck: Okay.

Member Clawson: This is just Brad.

Chair Kotelchuck: Well, that's why I'm asking.

Josie?

Member Beach: Dave, either one would be fine. I'm fine with starting with W.R. Grace or going on to a

new one.

Chair Kotelchuck: How about others, staff folks, W.R. Grace, will we start with that?

Ms. Gogliotti: Dave, I think that should be fine. We've really cleared up most of the issues. It's just a quick report I have on that.

Review Set 24 Blind Dose Reconstruction Cases

Chair Kotelchuck: Okay. That would sound fine. I would suggest perhaps going a little bit more into detail than you might otherwise for a continuation discussion because two of the folks are new and weren't in the earlier discussion. That being said, let's go ahead.

Ms. Gogliotti: Okay. Well, for the benefit of our new Board Members, our Committee is a little bit different than some of the other Work Groups and Subcommittees in that we do deal with individual claimant data. So we have to be very cognizant that we're not inadvertently revealing information about a claimant that could be used to identify them. Our report, of course, removes all names and contact information, but when we're referring to them, since this is an open line, we're very vague. We don't typically give the type of cancer or employment dates, gender, things that could be used to eventually identify the claimant. But I do have it up on the screen here, so you can see what we're talking about, and I did provide you with those files. If you would like me to scroll down or up, just let me know, and I can certainly do that for you.

Chair Kotelchuck: Okay. Thank you for saying that. That's an important thing, and it's very easy to slip up. So we all try to be careful. Once in a while, we slip and we try not to do it again. But it takes a while to get used to because we're talking about a particular case with a particular type or types of cancers, and it's hard sometimes not to talk about it, but we try.

Do go ahead.

Ms. Gogliotti: Okay. Well, this cancer or this case was particularly interesting for Subcommittee Members when we discussed it last week because this is the first time that SC&A and NIOSH have been on different compensation decisions. NIOSH came up with a PoC of 51.14 percent, while SC&A was at 49.5 percent. So, NIOSH was at compensation level and SC&A was slightly below.

Member Lockey: I'm having a little trouble hearing you. If you could speak up a little bit?

Ms. Gogliotti: Oh, I'm sorry. I tend to be a little soft-spoken. Just let me know.

So what made it a little bit more interesting was that SC&A actually assigned slightly higher doses than NIOSH. It came out to be roughly 300 millirems for each of the multiple cancer locations. And what that came down to was really how uranium internal dose was assigned, which was a difference in why SC&A had a higher dose.

What it came down to was really two separate issues. The first one was that SC&A was using the standard IREP Edition, which was the only version that we had available to us at the time, while NIOSH was using IREP Enterprise Edition, which is a special version of IREP that does multiple iterations for higher PoC cases, so between 45 and, I believe, 53-54 percent. And that's just for statistical precision.

But, again, SC&A did not have access to it at the time. So we were not able to run it and we just did the standard run. We now have been provided access to the Enterprise Edition. I do have all the passwords. I did some test runs on it, and we're comfortable using the new Enterprise Edition. So I think that resolves that first concern.

Chair Kotelchuck: Excuse me. I missed your last comment about using the Enterprise Edition. You do have access? SC&A does have access to the

Enterprise Edition?

Ms. Gogliotti: Yes, I was provided with the password to use that system.

Chair Kotelchuck: Aha.

Ms. Gogliotti: It runs almost identically to the normal IREP. It just does multiple iterations.

Chair Kotelchuck: Right.

Ms. Gogliotti: So it's very easy for us to use.

Chair Kotelchuck: Very good.

Ms. Gogliotti: It is somewhat time-consuming because it does take a lot longer to run.

Chair Kotelchuck: Sure.

Ms. Gogliotti: But we do now have that access.

Chair Kotelchuck: Have you run that? Because, as I understood it, since your earlier discussion, you had not had access to it and you didn't run it. And is this report that we're looking at, one that includes running on the Enterprise Edition?

Ms. Gogliotti: No. This is report was generated last Fall, and we didn't receive access until maybe April of this one.

Chair Kotelchuck: Okay, okay. Fine.

Ms. Gogliotti: But I believe Scott at the last meeting said that he had run all of our IREP input files on the new version, and we did come up above 50 percent when it was run in IREP Enterprise Edition.

Chair Kotelchuck: Aha. Okay, good. Thank you.

Mr. Siebert: And this is Scott. I can verify that is true.

Chair Kotelchuck: Okay. Very good. Because that was a concern I had, or will have as we discuss.

Sorry to interrupt you.

Ms. Gogliotti: No, that's absolutely fine.

Chair Kotelchuck: Do go ahead.

Ms. Gogliotti: So, I think that resolves our Enterprise Edition. And I would like clarification if the Board would like SC&A running Enterprise Edition from now on when we're doing our blinds.

Chair Kotelchuck: It seems to me we should. In fact, that was the main concern I had with the report, that you're running different versions. So, obviously, we're really not comparing apples and apples. So, I think we should. I don't think there's any question that we should run, each should run the same version. Isn't that correct?

Mr. Katz: Well, Dave, the one caveat on that I would put, if it's not close, it doesn't matter. So I mean, it's only really, that level of precision only matters if the values are very close in the first place. And that's why this hasn't been a problem in the past, right?

Ms. Gogliotti: And we don't know that they're close until we're doing our comparison reports.

Mr. Katz: Yes.

Ms. Gogliotti: Because we do these completely blind.

Mr. Katz: Right, right.

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

Mr. Katz: So, I guess you have to do it, then, because you won't know.

Chair Kotelchuck: Yes.

Mr. Katz: So, that's the point Rose was making, I guess.

Mr. Siebert: This is Scott.

Just for clarification, that version is only run when the final PoC from the normal version comes out between 45 and 52 percent.

Chair Kotelchuck: Correct.

Mr. Siebert: So, I think if they followed our same directions, as soon as you fell into that, then you would run IREP EE and get the final answer.

Mr. Katz: Right. Scott, that makes good sense. Thanks.

Chair Kotelchuck: That's right. No, that's correct. That's certainly what I meant. I mean, when it's only in the range 45 to 55.

Ms. Gogliotti: The selection criteria for the blinds are above 45 to like 54 percent, I think.

Chair Kotelchuck: Right.

Ms. Gogliotti: So, that's pretty much automatic.

Mr. Katz: Yes.

Chair Kotelchuck: That's right. So you run it all the time for this case.

Ms. Gogliotti: Okay. I will let my team know.

Chair Kotelchuck: Right.

And, Committee Members, you're comfortable with that? You agree?

Member Beach: I agree.

Member Clawson: I agree.

Chair Kotelchuck: Okay, good. Good. Okay. Very good. Thank you.

Do go ahead.

Ms. Gogliotti: Okay. There was also a concern that was raised by David Richardson that a report was put

out, but since David's not on the line, I don't know if we want to get into that at all anyway.

Chair Kotelchuck: That's an important question. That was the request for a report from 2002, and then, Dr. Hornung reported on that. The issue was that where -- if you can scroll down to Table 3.2 --

Ms. Gogliotti: Yes.

Chair Kotelchuck: Okay. Getting there. Here we are. Right.

The issue is, when you're looking at under NIOSH, the average PoCs for the 30 runs, and the question was, for the new folks, whether you want to use the average, the geometric mean, whatever, median, whatever. To choose the average is to assume that there is a normal distribution of those values, and in the range of the PoC values, that that's a normal distribution.

And the Hornung report certainly says unequivocally that it is normal. When you read through the report, Jim highlighted that in yellow, that that was his report. My feeling is he is the professional statistician, and I don't have competence -- I would accept his results -- I don't have competence to disagree, and therefore, I accept his answer.

I'm sorry that David Richardson isn't here since he raised the initial question on this.

Member Clawson: Why don't we wait until Dave is here? He's still going to have the question, or whatever. We'll just proceed on.

Chair Kotelchuck: Well, the question is--

Member Clawson: Could we do that?

Chair Kotelchuck: Uh-hum, and then, we wait until the next meeting when he's here?

Member Clawson: Well--

Ms. Gogliotti: I think that we might be able to close out the issue or close out the case, but have this remaining issue, if you wanted to.

Member Clawson: He was going to clarify a question that he wanted answered.

Chair Kotelchuck: Yes.

Member Clawson: So I think that we can still close. I think we can still take care of it. But David's the one that's got it, and I don't want him to also feel that we're discarding what he had first up. So, let's just take it--

Member Lockey: Dave, that would be a generic question for all the cases, not just this one, right?

Chair Kotelchuck: That's right, Jim.

Member Lockey: Yes. So, you can close out this case and just hold that open as a generic question.

Chair Kotelchuck: Right. And let's just say subject to his -- if he has an objection, we'll reopen. I would like to do this because this is our second meeting discussing this issue, and the concern that he had was addressed.

I will say that David's statistical insights are valuable and far exceed certainly my own. And so, I would certainly be glad to reopen it if he had any problem. But Hornung certainly addresses the issue and says it's a normal distribution. And I'm willing to accept that.

Member Beach: Dave, is that something you can do via email also with Dave Richardson? So we don't have to wait the three months or [more]?

Chair Kotelchuck: Sure. Sure. Why don't we do that? Well, Ted, do you want to? Can you do it by email?

Mr. Katz: Yes, I will take care of that.

Chair Kotelchuck: Okay. We'll just say that we accepted the Hornung analysis that there is a normal distribution. And if he is concerned, based on having read the request for the report and the report, he can just raise it. And if not, get back to us.

And then, if you would just send out an email to the Committee, hopefully that there's no problem?

Mr. Katz: Yes. I'll take care of that, Dave. I'm happy to.

Chair Kotelchuck: Thank you very much. That's fine.

Okay. Well--

Ms. Gogliotti: Just to clarify for our new Members, that information was provided with all the case materials. So if you're interested in reading that report, it is provided in the case materials.

Chair Kotelchuck: Oh, absolutely, yes. It was, and I certainly at least read it with interest and careful attention.

Okay. Well, are there other questions that we need to discuss about this particular blind? This would be the first blind, if we accept this, this will be the first blind in which we do have a disagreement. And that would mean, roughly, that would represent 3 percent of the blinds that we've looked at so far.

Mr. Calhoun: Except we put that disagreement to bed, didn't we?

Mr. Katz: Yes. It doesn't stand as a disagreement.

Chair Kotelchuck: Oh, I'm sorry. Well, I mean, no, the question for us is, we are going to vote to accept this and we're going to vote to accept the fact that in this case the decision is different between the two groups, right?

Mr. Calhoun: No. We agreed that it was --

Mr. Katz: No.

Chair Kotelchuck: Pardon?

Mr. Calhoun: No. This is Grady. Once you guys ran the Enterprise Edition, we were in agreement that NIOSH was right.

Chair Kotelchuck: Well, then, let me see. I thought you just said -- did I misunderstand you, that when you reran it with the Enterprise Edition, the SC&A with the Enterprise Edition, that the results were the same? That is, the PoC was still above 50 percent? Did you just --

Ms. Gogliotti: Well, yes. Yes, but NIOSH's was above 50 percent, and SC&A was below 50 percent initially.

Chair Kotelchuck: I'm sorry. Okay. I think I read visually, and I didn't have it in front of me. So, there is not a disagreement? Okay. Well, that's quite significant in terms of we are hoping that the decisions by NIOSH and SC&A are the same, and they have been for the previous 30. Well, good. I'm glad we clarified that. I did not understand that. We don't have text that talks to that. So, I misheard you on the phone or wasn't able to check back and see that there is no disagreement. Okay.

By the way, just to say, I would have liked to have had some notification of that before the meeting, not just something verbal here. And it could have been a little note. Or, in the future, if there's anything like this, don't hesitate to send a note out beforehand, so we can look and check on the numbers.

Ms. Gogliotti: All right, Dave. I apologize. That was discussed at the last meeting, actually. The only thing that occurred was we got access to Enterprise Edition.

Chair Kotelchuck: But I understood you didn't have access to the Enterprise Edition at the last meeting?

Ms. Gogliotti: Yes, correct. I'm sorry. We will do that--

Chair Kotelchuck: And so, this has happened after the last meeting, which is fine. I was just not aware. So, I would have liked something in writing that I could look at.

Okay. Well, are there any other questions about this blind then?

(No response.)

Now I don't know, both Loretta and Jim, since you're new, I'm not sure how you feel in terms of voting on it. You've come in on the last part of the discussion. And certainly, for those of us who were on the first part -- or I should not say -- for myself, the discussion, I was there on the first part. It seems to me the questions are resolved and there is agreement. I will leave for the vote or for any input.

Member Lockey: David?

Chair Kotelchuck: Yes?

Member Lockey: Jim Lockey.

I can't vote on this because I have a conflict anyway.

Chair Kotelchuck: Oh, okay. Okay. That's helpful.

And, Loretta, I don't know if you feel comfortable. You may wish to abstain. You may wish to vote. That's up to you.

Having said that, would we want to vote on it now, on whether we accept this blind?

Member Clawson: Yes.

Chair Kotelchuck: Okay. Good.

Member Beach: Yes. And this is Josie. I agree to accept also.

Chair Kotelchuck: Okay. And I agree to accept.

Member Valerio: So, Dave, this is Loretta.

Chair Kotelchuck: Uh-hum?

Member Valerio: Having read the entire transcript and listening to the explanation now, having SC&A use the Enterprise Edition, I'm comfortable voting as well.

Chair Kotelchuck: Okay, good. Good. So, the four of us who are eligible to vote will vote yes, and that is agreed upon. Okay.

Member Clawson: That means you, Lockey, just wait in the truck; we'll catch up here in a little while.

(Laughter.)

Member Lockey: Was that Brad?

Chair Kotelchuck: Yes, it was Brad.

Okay. What next one should we do? What is the next blind?

Ms. Behling: Dr. Kotelchuck, this is Kathy Behling.

One other comment that I would make, when we do our summary table, summary comparison table, perhaps when we put in our summary statement, that would be a good place to identify the fact that SC&A did run the Enterprise Edition of IREP and that that's when the PoC changed. And so that will document the ultimate outcome of this, because we typically don't go in and change our reports. But, if we do it in that summary table, then it will be captured in that document, if you're in agreement with that.

Chair Kotelchuck: That's sounds okay to me. Other Committee Members, who does that sound?

Member Clawson: That sounds great like usual, Kathy. Thank you.

Member Beach: Sounds like a great plan. Thank you.

Ms. Behling: Okay.

Chair Kotelchuck: Good. Thank you.

Okay. Which blind would we like to do next or would you folks like to do next, SC&A?

Ms. Gogliotti: Do you want to just go in order?

Chair Kotelchuck: That's fine.

Ms. Gogliotti: Okay. That would be B30, which is a Fernald case.

Chair Kotelchuck: Okay.

Ms. Gogliotti: I believe Ron [Buchanan] is going to handle this one.

Dr. Buchanan: Yes, this is Ron with SC&A.

This case, B30 is for an Energy employee who worked at a DOE site for many years and had cancer. We see in Table 1-1, on page 8, that comparison doses are assigned by NIOSH and SC&A. We see that the external doses are very similar, a few minor differences, but not a lot. The internal dose was about 2 rems higher by SC&A than NIOSH, and that was because SC&A used the Revision 3 of the TBD and NIOSH used an earlier revision that was current at the time that the DR was made.

And we see that [for] the total doses, SC&A's was about 2 rem higher. However, the PoCs were close, but reversed, in that NIOSH had a higher PoC than SC&A. And again, this comes from exactly what we have been talking about. SC&A did this blind; we did not have the Extended Edition of IREP. And so, we just ran the standard edition, and our PoC came out a little lower. However, NIOSH has used the Extended Edition, and many iterations, and came out with a higher PoC, both below 50 percent.

Now, if we look at Table 2-1, on page 9, we see the comparison of the data and assumptions made by NIOSH and SC&A, and I'll mainly cover those that

were different. We had very similar -- we did use the same methods for recording photon dose and most of the external doses. And we see that we had a slight difference in the number of zeroes, simply because one year the TBD changed. The previous year it was weekly, and then the next year it was biweekly. And that year was either weekly or biweekly, and SC&A counted it as weekly, instead of biweekly, and came up with six more missed doses.

We see that the onsite ambient was slightly different in that NIOSH pro-rated it for partial-year employment. Initially DOL said the worker was employed through the full year [during] his last year of employment. And so did the CATI. However, apparently, there were some follow-on documents, and NIOSH found the last year was partial-year employment and not a full year. It was a slight difference in the onsite ambient external dose assigned.

Medical dose, they came up with the same values there, the same parameters. On page 11, we see the internal dose. Now this is the main difference in the dose assignments, in that NIOSH used the earlier revision, the TBD. Like I say, it was applicable when they did the DR. We used the later edition, which was applicable when we did the DR. And the later edition spells out in more detail the enriched uranium and the recycled uranium and the periods they were used and when they used a combination of those. And so, while we did similar dose reconstruction methods, we came out slightly higher internal dose because of this.

And then, we see that for the environmental internal we were slightly lower because you don't count the radionuclides twice. If you counted them in recycled uranium, in the enriched uranium, you don't count them in the environmental for that period that was monitored. And so, that gave our results slightly lower on the environmental than NIOSH's.

So that's essentially what the whole DR comparison

consisted of, and we can go through some of the details here. We see on that same page, we start out with recorded photon dose. The worker was monitored for most of the long period of employment. There were a few gaps, a few badge exchanges that there were gaps, and you could either assign an adjacent --

Chair Kotelchuck: Pardon me, Ron. I'm having trouble. I'm not seeing it on the monitor. Are other people having trouble?

Member Beach: No, I've got it up.

Ms. Gogliotti: No, I can see it.

Chair Kotelchuck: Okay. Well, then, it must be something local with me. Hopefully, it will come back.

Dr. Buchanan: Okay. We're on page 11 under external dose calculations.

Chair Kotelchuck: You go ahead, yes.

Dr. Buchanan: Okay. So the worker dose monitoring, a few gaps. We used either adjacent quarters or assigned missed dose. We see that performing this operation we used the same energy range and that sort of thing. We see that NIOSH assigned about 2-3 rem, and so did SC&A. And we had about 8 millirems difference. That was because for one gap we used adjacent, whereas NIOSH assigned it as a missed dose. And so the dose is accounted for. It just depends on whether you used average of adjacent or as a missed dose. So it came out about 8 millirems difference.

And so we go to the missed dose, and that's on the next page, 12. We see that it had a lot of missed doses over a long period of time. Counted those up. SC&A had six more than NIOSH, and that was due to the one year when the TBD said you could have it either weekly or biweekly. SC&A used weekly because the year had weekly. NIOSH used biweekly.

And so that gave a few less missed doses. And so the total doses were very close because there was a lot of missed dose, but that was the reason there was a slight difference. In the long run, the doses were accounted for.

Is there a question?

Chair Kotelchuck: Am I on? Ron?

Dr. Buchanan: Yes?

Chair Kotelchuck: Yes. I am having trouble, and I seem to have been cut off. I'm trying to get back on.

Brad, would you like to just, if you will, take over while I play games with my computer and try to get back on?

Member Clawson: I would love to, Dave.

Chair Kotelchuck: Okay. Very good. Thank you.

You go ahead, Ron.

Dr. Buchanan: Okay. Thank you.

Okay. So, this brings us up to the shallow dose. Both SC&A and NIOSH assigned the same shallow dose, about 16 rem. And so, that was in agreement.

Chair Kotelchuck: Oh, Brad, back again. Okay. Thank you. I've been off for a while. Thank you. Sorry.

Member Clawson: No problem.

Chair Kotelchuck: Okay.

Dr. Buchanan: Okay. We're good to go?

Chair Kotelchuck: Yes, yes.

Dr. Buchanan: Okay. Thank you.

Okay. So, that brings us to page 15, onsite ambient dose. We both used Procedure 60 to assign ambient

dose when it was appropriate. And we assigned the same, very similar ambient dose, except as I previously say, the initial DOL case showed that the worker worked to the end of the year; whereas, NIOSH assigned it for partial year, and claimant, apparently, because of data that had come in later after the CATI and the initial DOL had been filed.

Then, just medical dose. We see that we used -- there's several exams recorded, and some were injury-related, which isn't included. And we both sorted those out the same and came up with the same dose there, about a half a rem. And so, that concludes the external dose.

Any questions before I go on to the internal dose?

Chair Kotelchuck: No.

Dr. Buchanan: Okay. Thank you.

We'll go on to internal dose, which starts on page 15, Section 2.2. We see that there was an SEC for this facility. And so, considering that, this would be considered a partial internal dose reconstruction. However, there was bioassay data. And so both NIOSH and SC&A used the bioassay data to determine the uranium intake and recycled uranium.

And so both NIOSH and SC&A used the same methodology, in that we looked at the missed dose using the last MDA values of the bioassays. We looked at the fitted dose. It was about five periods of positive. And so, we looked at those fitted doses and calculated the intake and dose resulting each year from those and, then, assigned the highest of the missed or fitted dose for each year, and came out using the same method. However, we see that NIOSH used Revision 0 and SC&A used Revision 3, which resulted in the tables there show that SC&A comes out with more details on page 17.

It shows the specific activity increased when we went to the new revision to .9 picocuries per microgram; whereas, before it was around .6. And so, factoring

that in, it resulted in the dose being up 2 rems greater for internal dose assignment. Now, of course, there is a PER issue to correct this. And so, any cases that was involved in this calculation and had a change in it. Of course, it was recalculated, not only this one, but others. And so, this resulted in SC&A assigning about 2 rems greater than NIOSH. However, we both agree with the methodology.

And we see that, on page 18, we have the reasons that ours was about 2 rems higher. The first was the difference in revisions of the TBD. Secondly, it was the slight difference that would occur into the intake, by SC&A using the total last year of employment; whereas, NIOSH used a partial year.

And lastly is that, when we did the fitting routine, NIOSH used some more data input into some of the previous inputs in bioassays; whereas, SC&A used mainly the peak. And so it gives a slightly different fitting routine, but very similar.

Okay. So that leads us to the environmental intake, [for] which both SC&A and NIOSH assigned the environmental intake using the same methodology. However, that is spelled out on page 19. We see that NIOSH assigned an intake and resulting dose slightly higher than, or quite a bit higher, but relatively low, compared to SC&A. And the reason for that is that, when SC&A used the later revision of TBD-5, it included some of the radioisotopes that were included in the environmental program. So, you spec those out. Plus, you don't assign those during the year that they were monitored. Whereas, for NIOSH, they weren't monitored for those years. So they assigned the full employment period. And so that gave a slightly greater environmental dose for NIOSH compared to SC&A.

Chair Kotelchuck: Okay.

Dr. Buchanan: That brings us to the summary on page 20. And we have Table 3-1, comparison of the total dose estimated by NIOSH and SC&A. See the external dose is very similar. Internal dose, again, 2

rems higher. And that brings us to the PoC -- I mean total dose, and a rem higher. And then, the PoC, NIOSH got just below 50 percent; whereas, SC&A got a few percent below 50 percent.

And the reason for that, like we were just discussing, is the iterations, using IREP Extended compared to IREP standard, which SC&A used. And this is before we had access to the Extended version. So, I understand now that we will use that on blinds now that it's available.

So, that's the summary of that dose reconstruction. Any questions?

Chair Kotelchuck: Okay. Alright.

Ron? Ron?

Dr. Buchanan: Yes?

Chair Kotelchuck: So you've completed your report.

I'm not quite sure what was going on with the land line. Is that straightened out, whatever?

Member Clawson: That wasn't Ron.

Dr. Buchanan: Yes, that wasn't me. I don't know who that was.

Member Clawson: That was somebody else that hasn't muted. Remember, everybody, *6.

Chair Kotelchuck: Okay. That's right. Very good. Okay.

So are there questions?

Dr. Buchanan: Do you want me to give you estimates by issue number?

Chair Kotelchuck: It has quieted down.

Are there questions?

(No response.)

I don't have any questions for you, Ron, about the report.

Do other folks have questions or clarifications that they wish?

Member Valerio: None here. This is Loretta.

Chair Kotelchuck: Yes.

Member Beach: I don't have any, either.

Chair Kotelchuck: Yes.

Member Lockey: No questions. Jim Lockey.

Chair Kotelchuck: Okay. Brad?

Member Clawson: I have no questions. I'm sorry, I was on mute when I said that.

Chair Kotelchuck: Oh, that's okay.

So I gather that we are agreed that we accept this report and are ready to move on to the next blind. Okay. Good.

Which one should we do next? Do you want the next Fernald or do you want to do the NTS?

Ms. Gogliotti: I've got the NTS pulled up here, but if you want to do Fernald, we can certainly continue with that.

Member Clawson: Well, let's just continue on the way that it rolls. It's fine. We'll get to them.

Ms. Gogliotti: Okay. The next one up here is a Nevada Test Site case. And I believe Kathy is going to handle that.

Ms. Behling: Yes. Yes, this is Kathy.

We're going to start on page 6. As we already know, this is a Nevada Test Site case. If we look at Table 1-1, we see a summary of the cancers diagnosed for this Energy employee.

And if we move on to Table 1-2, this shows the comparison between doses calculated by NIOSH and SC&A. As you can see from this table, the missed photon doses are very similar. Environmental external doses are identical, and the occupational medical doses are similar also. In the internal, the only dose that was calculated was the environmental dose, and those were also identical as well.

And so, if we move on to -- it's a two-page table here. Both SC&A and NIOSH calculations resulted in PoCs greater than 50 percent. SC&A's calculation was 51.61 percent, and NIOSH was just over 50 percent. And again, as has been mentioning, this was using just the regular version of IREP or of -- yes, IREP.

If we move on to Section 2, it is a summary of this particular case. The first paragraph provides the employment periods. Both SC&A and NIOSH calculated doses, as we can see, that are very similar, and they used the same key documents, which are the NTS Technical Basis Documents; the OTIB-17, which is Interpretation of Dosimetry Data for Assignment of Shallow Doses. And they also considered Super S plutonium, which didn't really have an influence on this case.

If we move on to Table 2-1 on page 10, what we do in this table is, if the SC&A parameters are the same as NIOSH, we have started to enter a dash. And so the only thing you will see when there's a difference is we only put numbers in or information in when there's a difference in S&CA's calculation.

As you can see, there is a dosimeter correction factor added to the photon doses, and NIOSH used 1.1 and SC&A used 1.11, and that resulted in the minor differences in the photon doses.

For the medical dose, also -- and we'll talk about this a little bit later -- but NIOSH assigned PA exams for three years, and SC&A assigned the LAT and the PA for the first year of employment, and then, PA for two additional years.

Internal dose, we both calculated just the environmental dose. It was calculated for a few different years, but it resulted in the same doses. Those doses were entered into IREP. NIOSH entered them as a normal distribution with a geometric standard deviation of 3, and SC&A entered it as a log normal distribution with a geometric standard deviation of 1.5. But, again, that had so little impact because the doses were so small.

I will go through a few details. As we go down here, the individual was monitored throughout most of his employment, and except for the varying last quarter of the last year of employment. However, all of the doses were reported as zero. And so, then, they were treated as missed dose.

And if we move on to page 11, the individual was monitored both on a monthly and quarterly badge exchange. And both NIOSH and SC&A counted 134 zero exchanges. As you can see in Table 2-2, both assumed an LOD value of 30 millirems. So, 15 millirem was the LOD over 2 value. And the only difference is that, as I indicated earlier, NIOSH applied a dosimeter correction factor of 1.1 and SC&A assigned a correction factor of 1.11. This resulted in a slight difference in dose. SC&A's dose was 2.073 rem, and NIOSH's dose was 2.067 rem.

If we move on, then, to --

Chair Kotelchuck: Could you scroll up a little bit, please? There we go. Okay. Right. Thank you.

Ms. Behling: Okay. I'm sorry, I should slow down and let her catch up with me.

Chair Kotelchuck: Yes.

Ms. Behling: Alright. For the one quarter where the individual was not monitored, both NIOSH and SC&A assumed onsite ambient dose for that one quarter. They both used the NTS TBD, and they both identified or calculated identical onsite ambient doses of 9 millirem.

And then, if we move on to occupational medical dose, we can actually go down to page 13, and then, it shows a little bit of difference between what NIOSH did and what SC&A did. NIOSH assigned, as I said, a PA exam for three years of employment. And for their doses, they also used the NTS Occupational Medical TBD, and their doses ranged from 2 millirem to 8 millirem. Now SC&A looked at the data and at the TBD, and assigned a PA chest and a LAT on the first year of employment, and then, just a PA chest exam for two additional years.

There were several exams, x-ray exams in the records that indicated that the individual had injuries, and those do not get included in this exposure. We interpreted for the one year that it was an injury, where NIOSH assigned a PA for one of the years that we felt the exam was actually done for, I think a thumb injury or something. And so, because of us assuming an LAT and a PA for the first year of employment, SC&A's doses were slightly higher and ranged from 18 millirem to 26 millirem.

So, if we move on to internal -- and I will go through this because it's a very simple internal -- because there is an SEC at the NTS site, if the individual does not have bioassay records, the only dose that you can assign is an environmental intake. And that was the case for this individual. There were no bioassay records. And so, both NIOSH and SC&A used the CADW tool and calculated doses based on that tool. And the only thing that SC&A did a little bit different is we didn't include the earlier -- NIOSH did not include the earlier years. They did not calculate dose for the earlier partial years of employment, where SC&A did, but that did not result in any difference in the dose. Both methods came up with a dose of 1 millirem. And as I said earlier, NIOSH entered that into the IREP as a log normal with a GSD of 3, and SC&A used a GSD of 1.52.

So if we go to page 14 under our summary, you can see Table 3-1 compares doses, external and internal doses, for all of the various cancers. As you can see,

they were very, very similar and resulted in PoCs that were similar.

So does anyone have any questions?

Chair Kotelchuck: No, I don't. Straightforward.

Others?

Member Clawson: This is Brad. No.

Member Lockey: No. I think, no, I'm good.

Member Valerio: This is Loretta. No, no questions.

Chair Kotelchuck: Right. Okay. Actually, I wish I had a few questions for you, but I don't. As I said, it's straightforward--

Ms. Behling: Yes.

Chair Kotelchuck: -- and well-done. Thank you.

Ms. Behling: Very good. Thank you.

Chair Kotelchuck: Okay. So we're in agreement on this, and unless I hear objection, let's move on to the last Fernald.

Ms. Gogliotti: While I get this pulled up here, Dave, as a matter of scheduling, do you think your intent is to go through this case, and then, break for lunch, or do you want to go directly into the issue resolution process?

Chair Kotelchuck: I think we'll do this, and then, break for lunch. It may be a little early, but it will be a few minutes of 12:00. And that's when we typically break.

Ms. Gogliotti: That's fine. I just wanted to confirm, so I get the right people on the line.

Chair Kotelchuck: Sure, sure. Thank you.

Ms. Gogliotti: Okay. And the last one is B32, which is also a Fernald case. And Doug is going to handle

this one.

Mr. Farver: Okay, Rose.

If you go to page 8, we can start with Table 1-1. This is, like Rose says, for a Fernald worker. And Table 1-1 shows the doses calculated by NIOSH and SC&A, and they're all pretty similar until you get down to the environmental alpha dose. And that's where we see the big differences. As a result of these differences, you will see a slight difference in the PoC. So that's kind of an outline of where we're going with this.

If you go to the next page, we'll look at Table 2-1. So we can see some of the differences. For the missed photon dose, there's not a lot of difference, only until you get down to where it was geometric standard deviation, there is a slight difference. But the doses we're looking at were just a few millirems. It's probably not going to matter that much.

The missed neutron dose, we look at the differences in those two and we see that there's some differences between the neutron-to-photon dose ratio that was used by both groups. NIOSH chose the 95th percentile, and SC&A used the geometric mean. And we see a difference of [a factor of] about 2; and it was the difference between a millirem and a half a millirem. And that's about it for the neutron doses, not much difference between the two and the dose was not very significant in any case.

Okay. The next page --

Member Clawson: Hey, I don't know about other people, but I'm having a little bit of a hard time hearing over somebody that's --

Member Lockey: Brad, me, too. I can't hear.

Mr. Farver: Can you hear me or is it the background noise?

Member Clawson: It's the background. This is Brad.

(Off the record comments.)

Chair Kotelchuck: Okay. Let's go ahead.

Mr. Farver: Onsite ambient dose. We can see that defined in the revision that was used from Revision 3 to Revision 4. I don't believe that made any difference. No, that really didn't make any difference in the doses.

And the other difference is there was a Weibull distribution used by NIOSH, and SC&A used the normal dose distribution. And I believe that, for the dose conversion factors that were used, SC&A used the low value for the CCFs and NIOSH used a Monte-Carlo-type calculation of the DCF distribution. So you get a slight difference in the two doses for that reason.

Medical dose. The difference you see here is the number of exams. The individual had several exams, most of which were for injuries and were not included by either side. And the exam chosen by NIOSH was for a date, single date, and on that same date SC&A chose two exams, or two x-rays, I should say. And I can get into why I think what that difference is later on, but that's the difference. So it's a difference between one exam and two exams.

Environmental internal. Once again we see there's a difference in revisions from Revision 3 to Revision 4, and that is the primary difference. That is the difference between these two values. And I'll explain that as we go on.

So we move on to 2.11, Recorded Photon Dose. It was only a very limited time that the employee was monitored and that was less than the limit of detection. So doses were assigned as missed photon doses, and both SC&A and NIOSH used the same energy distribution for the photons. Like I said before, the only real difference is the geometric standard deviation used by both sides. Not much difference.

And then the unmonitored neutron dose. This is where NIOSH chose to use the 95th percentile neutron-to-photon ratio, and so, .23. And SC&A chose to use the geometric mean from the same table, which was .1. And so, that results in a smaller dose, by about half. So that was the reason for the neutron dose difference.

Onsite ambient dose. Both SC&A and NIOSH calculated using the same values from Table 4-3. They came up with different total doses, primarily because of the way the dose conversion factors were calculated by NIOSH and by SC&A. One used the distribution of dose conversion factors, and SC&A used the mode of factors. And then, NIOSH entered it as a Weibull dose distribution, their doses, and then, SC&A entered their doses as a log normal distribution, normal distribution -- excuse me -- with a standard deviation equal to the mean. And you get a slight difference of 40 millirem or so.

Next, the medical dose. This is probably where there's the biggest difference because one is twice the other. They both use the same technical documents, the same tables. The difference is one assigned one dose or one PA exam, and SC&A assigned two PA exams. In looking at the employee's records for this, there is an x-ray requisition form from Fernald that just shows the date and it was an exam.

And the page prior to that in the employee's records shows a table -- it looks like an Excel-type spreadsheet table of the employee's x-ray exams, including ones that were not occupational. And it lists, for that same date, it lists two exams or two x-rays, quantity of x-rays. So I believe that's why SC&A chose to use quantity of two instead of quantity of one, which would explain the difference between why the SC&A dose is twice that of the NIOSH dose. Both values were entered at normal dose distributions with the 30-percent uncertainty.

Now, next to the internal dose. The employee was

monitored for internal exposure, basically, for a baseline. And the baseline was less than the detection limit. So, both SC&A and NIOSH assigned environmental intakes. NIOSH used Revision 3 to the environmental TBD, Table 4-2. SC&A used Revision 4 to the same document, Table 4-2.

The short story is that there was a change to the table from Revision 3 to Revision 4. The dose factor of about a thousand; the dose is decreased in that table, which is the reason for the decrease of about a thousand in the values calculated by SC&A and NIOSH.

Member Beach: Doug, this is Josie.

That's simply the timing, isn't it, when you guys did the blind review and when NIOSH did the actual reconstruction?

Mr. Farver: Yes.

Member Beach: Yes. Okay.

Mr. Farver: Based on the date of when the dose reconstruction was completed, they used the correct revision. The Revision 4 did not come out until after that dose reconstruction was completed. We got it later on. So, we used the most current document that was available. So that's the result. That's why those are different.

Chair Kotelchuck: Okay. That's clear.

Mr. Farver: Yes.

Okay. Moving on, next page. So we can summarize it. We can see that there's not a lot of difference in the external dose, and much of that is probably going to be from the differences in the x-ray doses.

The differences in the environmental dose, the internal dose, we've talked about. That's a difference of a thousand between the Technical Documents.

And then, we go down through the specific instances

for our differences. So the neutron doses, it's the neutron-photon ratio for the neutrons. It's the assumption of two x-rays to one x-ray for the medical dose. The ambient dose, it's very similar. It has to go with just the same, primarily the DCF. The way that was determined by SC&A and NIOSH results in a slight difference.

And then, on to the external dose -- or internal doses. And we talked about that, where the primary difference there is the thousand-fold difference in the updated table. And even so, the PoCs are not that different. And I believe, in general, the doses were -- the doses were fairly similar, I mean overall, except for the environmental. But you still had a similar PoC value, and both PoC values were less than the 50 percent, and therefore, there was no change in that.

Any questions?

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

Chair Kotelchuck: The medical, the occupational medical dose, is it that they were x-rays taken from two different positions, the PA and the LAT, and it was not included in one of the reviews? Is that what happened there?

Mr. Farver: I am not clear on that. All I know is, from the records, if you look on one page, it shows the actual form, the request form for the x-ray, and it has the date and, you know, normal chest x-ray.

Chair Kotelchuck: Uh-hum.

Mr. Farver: And if you go to the page before that in the employee records, there's kind of like a little table that has a summary of the employee's x-rays, x-ray type, x-ray size, and quantity of x-rays. And that says two, quantity of x-rays two for that same day. So, to me, it's not clear which, if there were two or if there were one.

Chair Kotelchuck: Right, right. Well, it does not make a great difference, but I guess it's really

essentially the date itself is unclear. I mean, what was done is actually unclear. Okay.

Other folks have questions? Concerns?

(No response.)

All right. Did I hear someone?

Member Clawson: No. This is Brad. Like you said, I'm good with it.

Chair Kotelchuck: Yes. I certainly am.

Are we all okay here?

Member Lockey: Jim Lockey. Good.

Chair Kotelchuck: Okay.

Member Beach: Josie. Good, too.

Chair Kotelchuck: Good.

Loretta?

Member Valerio: I'm good.

Chair Kotelchuck: Good, good. Alright. That's fine.

So now, this completes all of the blinds for Set 24. We have a total, as I said, of 33 blinds.

Ms. Gogliotti: Thirty-two.

Chair Kotelchuck: Thirty-two? Okay. I thought I counted -- yes, yes, that is right because one is being under evaluation, right?

So for the 32 -- thank you -- so for the 32, we have agreements for the decision in all of them, which is excellent, which says that we may not be accurate, but we're certainly precise, in that NIOSH and SC&A, two independent groups reviewing the exposures, come to the same conclusions. And that is important and satisfying.

And I guess I'm trying to remember. Did we just set

a Set 26 for blinds?

Ms. Gogliotti: Yes.

Chair Kotelchuck: Yes. Good, good. So, folks are working on, NIOSH is working on Set 25 with SC&A.

Ms. Gogliotti: No, no.

Chair Kotelchuck: We haven't gotten there yet?

Ms. Gogliotti: Set 25 we just submitted to the Board last week. We still have to carry out our one-on-one calls.

Chair Kotelchuck: Yes.

Ms. Gogliotti: And then, once those are completed, we'll revise the cases however the Board Members ask us to resubmit those, and then, NIOSH can comment on our findings.

Chair Kotelchuck: Very good. Very good. Okay.

So now, it's about a quarter of 12:00, which is a little early, but we don't have enough time to do substantial work between now and noon. Could I suggest that we take a slightly longer lunch -- it's 11:40-something, 41 -- and come back at one o'clock Eastern daylight time? Okay, an hour and a quarter for lunch? And then, we'll come back at 1:00. How does that sound, folks?

Member Clawson: That's fine.

Chair Kotelchuck: Okay. Very good. It's actually those of us on the East Coast will have lunch and those of us on the West Coast will have breakfast maybe.

Mr. Katz: Brunch.

Chair Kotelchuck: We'll have brunch, right.

Okay. Very good. We'll come back, then, at one o'clock, and we'll go off now and eat a little. See you later.

Mr. Katz: Thanks, everyone.

Chair Kotelchuck: Bye-bye.

(Whereupon, the above-entitled matter went off the record at 11:44 a.m. and resumed at 1:01 p.m.)

Review Cases from Sets 14-18

Chair Kotelchuck: Okay. Very good.

So we're set now to begin going back to the last remaining cases for Sets 14 through 18, and let's see what we can do with them. Let's do the Brookhaven National Lab first.

Ms. Gogliotti: Okay. Let me just get that pulled up.

Chair Kotelchuck: Let's see, and that's Case No. --

Ms. Gogliotti: That is 435.

Chair Kotelchuck: Yes, 435. Good, good.

Ms. Gogliotti: If you'll just bear with me, this is particularly slow today.

Mr. Katz: Someone has an open line. We're getting an echo.

Ms. Gogliotti: Okay. Well, while we're waiting on this-- this one is actually pretty simple. I think we can close it even without seeing it.

This particular case is a Brookhaven National Lab case. Here we go. And our initial observation, Observation 1, was--

Mr. Katz: Can I just suggest before, because we still have an echo, someone may have accidentally joined the audio on the Skype. And if you did that, then you're going to get feedback because you have both a phone line and an audio line. So please, everyone check, make sure you didn't join the audio on Skype or rejoin Skype, in other words. Otherwise, everyone would mute their phones. Thanks.

Ms. Gogliotti: Okay. Hopefully, that resolved it. Still get an echo, but I'm going to keep going, I guess.

Okay. Observation 1 had to do with the fact that this particular case needed tech-99m dose assigned to it. And NIOSH did that modeling in IMBA.

Mr. Katz: Rose, Rose, this isn't going to work.

Again, either someone joined Skype, joined the audio on Skype, in which case you have to get out of Skype and rejoin without joining the audio, or someone has a line open. But we're getting feedback, and it doesn't work. Okay. It seems like it's gone now. Alright.

Ms. Gogliotti: Alright. I'll try that again.

So, for this particular case, NIOSH assigned tech-99m dose, which is kind of an unusual radionuclide, and SC&A did not have the ability to verify the dose that was assigned. NIOSH had done it in IMBA, but with the plug-in that SC&A did not have.

And just prior to the last meeting -- I think we have a little echo again, but -- NIOSH was able to provide us with that plug-in, but it was soon enough where we didn't have the ability to go in and verify the doses that were assigned. So SC&A was tasked with just going in to confirm the doses that were assigned, now that we did have the plug-in available to us. And I was able to verify that we can now run tech-99 and tech-99m in IMBA, and all concerns we had regarding this issue have been resolved. So I recommend closure.

Chair Kotelchuck: I was listening in on that. I'm not quite connected up with actually seeing it on my screen. But it sounds like that's settled. Is that correct? All agree?

Member Lockey: Jim Lockey. Agree.

Chair Kotelchuck: Yes. Okay.

Member Clawson: This is Brad. I agree.

Chair Kotelchuck: Alright.

Member Clawson: It looks like we've got our echo back, Dave, as soon as you came on.

Chair Kotelchuck: When I went -- when I went -- certainly I'm not part of the echo because when I went off it still echoed.

And I'm going to try to get back on the -- main line while we're going ahead, so I'm on audio.

Mr. Katz: Are you on a speakerphone, Dave?

Chair Kotelchuck: Yes, I am.

Mr. Katz: Maybe that's the problem.

Chair Kotelchuck: No, because when -- I'll show you. I'll put mute on.

Mr. Katz: Give it a shot.

(Off the record comments)

Ms. Gogliotti: So do we want to vote to accept this one?

Chair Kotelchuck: Okay. I'm still getting that echo, but we did 435, Observation 1. What next?

Member Beach: I was going to say, Rose just asked us if we wanted to vote to accept this or not, or if we needed to.

Chair Kotelchuck: Oh, I thought -- okay. We should vote. I was tied up on the phone or the screen. Let's accept, right, folks?

Member Lockey: Yes, I move we accept it.

Chair Kotelchuck: Yes. Right. Good. Sure.

Member Beach: Agreed.

Member Clawson: Agreed.

Chair Kotelchuck: Okay.

Ms. Gogliotti: The only other one in this matrix we are still waiting on is NIOSH exploring coworker dose for W.R. Grace. So we'll move to the AWE matrix.

Chair Kotelchuck: Okay. Was there a Ventron?

Ms. Gogliotti: Yes, that is in AWE.

Chair Kotelchuck: Okay.

Ms. Gogliotti: And that is tab 433, and it's Findings 2 and 3, and they're both related.

Chair Kotelchuck: Okay. Let's get that on the screen, right?

Ms. Gogliotti: I'm pulling it up here, but this is taking a while.

Chair Kotelchuck: Sure. Well, take your time.

Ms. Gogliotti: Okay. And, actually, I believe all the discussion is in Finding 3 here. The initial finding had to do with TBD-6000 and surrogate external dose for uranium reduction operations that took place in the 1940s at Ventron.

And, John, I will turn it over to you.

DR. MAURO: Okay. Yes, I will take it from here.

I'm holding in my hand a report that Bob Anigstein and I prepared and submitted to you all after the March 13, 2018 meeting that addresses this issue. I don't know if you folks have had a chance to read it. It's about four pages. If you like, I could give you a very brief overview of the issue, or if you folks have already read it, I could certainly field any questions that you might have on it.

Chair Kotelchuck: While I've read it, with new people here, why don't you go over it fresh even though some of us have seen it.

DR. MAURO: Okay. I'll make it very brief.

Ventron Corporation was an AWE facility that

operated in 1942 to about 1948 doing uranium conversion, did some uranium chemistry work, which makes it different than a uranium metal facility, and that's an important point. So keep that in mind.

The worker himself, the person that we dealt with, was an individual with a particular cancer, and the dose reconstruction was performed for him, but for the residual period, which began sometime in the early 1950s.

Now the method that NIOSH employed to reconstruct the dose to this worker was basically based out of TBD-6000. As you folks may know, that really is intended for use for metal-working facilities, not for conversion facilities. So we felt that that was the first concern. That is, really, if you could avoid it, and you have other sources of data that are really more relevant to a uranium conversion facility, you might be better off.

Now NIOSH took the position that, well, since we're dealing with a residual period, that's not so essential. We believe it is. And we looked carefully at the available data, airborne dust-loading data during operations, which is always your starting point for estimating what might be present in the residual period. And we saw that there were two sources of airborne data that, in theory, could have represented a better starting point and more consistent with the surrogate data criteria that we all are familiar with.

The data that was available were a number of measurements made, airborne samples taken at Ventron during the AWE period, which included up to about 1948. In addition, there is a set of airborne measurement data in a publication called Cristofano and Harris, which is one of the what I would call bedrock AWE reports related to uranium conversion that we have used widely in the past as a surrogate for uranium conversion facilities when we did not have site-specific data.

So when SC&A looked at this, we do have some airborne data from Ventron in the late 1940s and in

the early 1940s, and we do have the Cristofano and Harris data, which represents a broad range of different types of activities that take place at conversion facilities.

And the two numbers, the two separate sources of airborne dust-loadings we felt were compatible and probably represent a better starting point for reconstructing doses during the residual period. As you're aware, you start with knowledge of the airborne dust-loading. It settles onto the surfaces. And then when the -- you're probably all familiar with the history of how you use that information in TBD-6000 and OTIB-70. But, in any event, we thought that would be a better approach than using the TBD-6000 as your what I would call surrogate approach to this problem.

Then, what we usually do is say, well, does it really make a big difference if you would use that approach. So Bob and I actually went through the standard approach that's laid out in OTIB-70 to say, okay, what doses would we get if we used that approach?

And we only looked at the inhalation dose because of the type of cancer that we were concerned with was the type of cancer that is driven primarily by inhalation, and for uranium we came up with doses that are about twice as high -- these are the internal doses -- that were about twice as high as the doses that NIOSH came up with, which isn't -- and you would say, well, it's not that much different.

But it turns out in this case that's not insignificant because the PoC for this fellow was pretty high, and doubling the internal dose is of concern because -- we didn't do the numbers, but it's close enough that it's possible you could actually flip. By the way, this fellow was denied with a fairly high PoC. If you were to do it the way we think it should have been done, the internal dose would have doubled. It could very well have resulted in compensation.

So that's our four-page writeup in a nutshell.

Chair Kotelchuck: Okay. Folks, what do folks from NIOSH, what are your thoughts on this?

Mr. Allen: Okay. This is Dave Allen.

I just wanted to mention that -- well, I think John will be aware of this, that we've had a similar conversation at other sites in the past, that the 95th percentile for the airborne, it might be something that should be used during operations for airborne contamination, but we've had agreement in the past that that would not really be what you would base surface contamination on.

Normally, you're going to get one high area where you're generating airborne. But, from there, it's going to diffuse through the area. It is going to be laying on the surfaces, and from there, it's going to be tracked around and spread out, and it's going to even out quite a bit more.

In the past, we've had agreement that the geometric mean would be the more appropriate value to use to calculate a surface contamination value. Do you remember having those conversations, John?

DR. MAURO: Oh, yes, I absolutely do, and I hear what you're saying. What you're saying, that is perhaps a third approach might be better; namely, take a look at the -- the way I guess I would see it, I mean, when we did the calculation, by the way, keep in mind we did it as an example to see if it might be important. And we said, well, we do have these two other sources, Cristofano and Harris and, of course, the air-sampling data that we did have. And we ran those numbers, and we came up with what we came up with.

What you're saying is, well -- I guess the first step is, would you agree that perhaps that would be a better strategy than using the TBD-6000 approach?

Mr. Allen: Yeah, I would agree using air samples from the site is definitely a better strategy. I'm not positive if those were available when we did the DR.

I didn't get a chance to look for that.

DR. MAURO: Sure. And what I'm hearing is that, well, okay, let's go with that, but your inclination would be to look at that data and maybe use something different than we used in our example. And I have absolutely no problem with that. That is, my main concern is that when you do have either site-specific data or you have good surrogate data like Cristofano and Harris, you use an informed judgment, what air concentration should you use, and use that. And so, I mean, I'm fully supportive of that strategy. I just don't believe the approach that was used, this TBD-6000, is the right strategy.

Mr. Allen: Well, I mean, you have our responses in the BRS. We don't necessarily agree on that part, but we do agree that, if the air sample data for the site is available, that is the better information.

DR. MAURO: Yes, but --I'm sorry to interrupt -- but I would say, if I were going to say, well, we didn't have that data, I would sooner default to Cristofano and Harris and take some appropriate value from that, which is there specifically as useful for -- now what you would use, amongst a full range of air sample information from Cristofano and Harris, representing a lot of different conversion types of operations, that would be a judgment call. I would fall back to that.

But I've got to say, going to the TBD-6000 approach is so far removed from the surrogate data approach that I think that that really doesn't work.

Mr. Allen: Well, I don't know if we have to settle that one for this particular case or not, John, since we're agreeing that the site data would be better, and you seem to agree that the geometric mean would be the better number than the 95th when you're talking contamination.

DR. MAURO: Yes. Yes. Well, I would say I would go with -- since there was limited amount of data that we worked with from site-specific, and then we have

-- I would sort of -- my suggestion is take a look at both the Cristofano and Harris and look at the site data. See if they sort of ring true. And then, within that collection of data, a judgment is made whether you go with the 50th percentile of the site data, whether you pick some other value, given the limitations of that data, or you go with some appropriate value from Cristofano and Harris -- would be my suggestion. And it certainly could be something different than the one we used, but I think that would be the way to go that would be more compatible with the precedent established in the past.

Chair Kotelchuck: I'm not clear what -- you seem to be agreeing but not agreeing, and I'm not clear.

DR. MAURO: I'm not disagreeing. I'm saying that the idea of using the 50th percentile, if you have good site-specific data toward, let's say, the end of operations at a facility, I agree that you go with the average airborne dust-loading. And that data was somewhat limited. I think that was one of the reasons why, this might have been one of the reasons -- I'm not sure of the reasons why the site was granted an SEC. But, in any event, I agree that if you have good site-specific data during the end of operations at an AWE facility, and you want to predict what might be on the surface, deposited on the surface during the residual period, I agree I would go with the 50th percentile.

Chair Kotelchuck: And the residual period is -- the operations were taking place in the '40s?

DR. MAURO: Yes, they ended in '48, I believe.

Chair Kotelchuck: And when was the residual period?

DR. MAURO: I think this guy started exposure, well, it started right after that, but his exposure I believe started in '51. So there's a bit of a decline. You know, you have--

Chair Kotelchuck: The years, yes.

DR. MAURO: And you go with the classic natural attenuation rate laid out in OTIB-70.

So that's the fundamental. But I agree with Scott. That is, if you're going to go with airborne sampling data and you feel comfortable with it, and it does capture the -- sort of a pretty good measure of what was going on at the facility in the late 1940s, I agree geometric mean is a better value than 95th percentile, for the reasons Scott mentioned.

Chair Kotelchuck: Okay. And so you are in agreement now, the two of you?

DR. MAURO: Well, we're in agreement on Scott's strategy, as qualified-- remember, what we're really agreeing to is that we really do have to abandon the TBD-6000 approach, and we go to the air, we go to some type of combination of consideration of the air sampling data that you do have, to the extent that you feel like it's fairly representative, and also take into consideration Cristofano and Harris data, and then use that as your starting point to derive the approach.

Chair Kotelchuck: Got it. Okay.

Mr. Siebert: Just a heads-up. This is Scott. I just want to clarify, it was Dave Allen from NIOSH who was actually doing the answering, not me.

DR. MAURO: Dave originally did, yes. I think Dave was the original person that we spoke to previously. I don't know, was that Scott? I'm not sure who I heard.

Ms. Gogliotti: Yes, that was his voice.

Chair Kotelchuck: Yes.

Mr. Allen: This is Dave on the phone.

DR. MAURO: Oh, Dave, I'm sorry. I thought I was talking to Scott Siebert.

Mr. Allen: That's alright. I love to blame it on Scott.

(Laughter.)

Chair Kotelchuck: I'm comfortable with not using TBD-6000, which is for a different work situation, and using the actual data.

I don't know if other people have questions or concerns. It's still a little, the whole discussion is a little muddy to me. Maybe some further discussion would be helpful, if others have questions.

Mr. Allen: This is Dave Allen. Could I muddy the waters one more time here?

(Laughter.)

Chair Kotelchuck: Surely.

Mr. Allen: I mean, the part I never got a chance to weigh-in on is John was mentioning using like a combination of the site data and Cristofano and Harris.

Chair Kotelchuck: Right.

Mr. Allen: If I recall right, the basis for the SEC that you mentioned was because the determination was we couldn't use Cristofano and Harris to say what was happening during that operational time because Cristofano and Harris data came after that. And it kind of makes it difficult to use that --

Chair Kotelchuck: Right.

Mr. Allen: -- to estimate what the operational airborne was.

DR. MAURO: Yes, the Cristofano and Harris I remember was collected -- I'm not sure about that. I remember it being late '40s/early '50s. That was the time when they did all that work, when the Environmental Measurements Laboratory triggered all--

Mr. Allen: Right.

DR. MAURO: -- not only uranium conversion facilities, but also uranium metal facilities.

So you raise a good question. What you're saying is, perhaps Cristofano and Harris is not the best surrogate data. I think the problem with Cristofano -- maybe I could help a little. I think what we have here is there was -- I'm speculating a little bit, but I believe -- there was an SEC granted. And one of the reasons might be that the Cristofano and Harris data was in the late 1940s, maybe early 1950s.

Dr. Anigstein: Hi. This is Bob Anigstein.

DR. MAURO: Yes, Bob.

Dr. Anigstein: Cristofano started -- the figure in that, the memo that we sent, it starts in '48.

DR. MAURO: That's what I thought. And now the issue might be related to the actual exposures, the AWE period started in '42. So maybe the point we're making goes more toward the reason why an SEC was granted, but it may turn out that, as applied to the residual period, which is after '48, I think this might be Cristofano and Harris looking pretty good.

Dr. Anigstein: Yes, but Cristofano and Harris is not for residual. It's for operations.

DR. MAURO: No, no, but, I mean, you have to start with the residual--

Dr. Anigstein: No, no, I know, but the Cristofano and Harris is a good starting point if the operations took place during the time they collected their data, and then, you assume deposition and attenuation.

DR. MAURO: Right, and that's what we did.

Dr. Anigstein: Yes, I know, but, I mean, the fact that the residual period starts in '48 does not justify the use of Cristofano and Harris for the operations period.

DR. MAURO: Yes.

Dr. Anigstein: And the point we make here --

DR. MAURO: Yes.

Dr. Anigstein: -- in our memo is that -- I showed the graph -- there's a rapid decline, '48, the pre-'40 -- there is a line. I drew a line on this thing separating '48 and '49, and just prior to the end of '48 the concentrations are much higher. And then there's a dramatic falloff, right after '48, there's a dramatic falloff for the succeeding years. So they -- in other words the safety procedures must have improved.

DR. MAURO: I don't know if everyone followed conceptually, the point being that you really can't use Cristofano and Harris and the data to represent the early 1940s.

Dr. Anigstein: You can't. I agree.

DR. MAURO: Yes. Yes. But that's not the issue we have before us. What we're really dealing with is: Is Cristofano and Harris a good surrogate for the late 1940s and maybe--

Dr. Anigstein: No, it's not. No, it's not because at Ventron there's no operations after '48.

DR. MAURO: Well, that's what I'm saying, but --

Dr. Anigstein: No, you can't -- it's irrelevant. The operating facilities in, let's say, from '49 into the '50s, visited by Cristofano and Harris, are irrelevant to the residual period at Ventron.

DR. MAURO: I guess my experience is when you have some kind of surrogate data that represents the end of an operations period, that's a pretty good place to start to say what you might have at the beginning of the residual period.

Dr. Anigstein: I agree.

DR. MAURO: I mean, that's the classic approach.

Dr. Anigstein: I agree with that.

DR. MAURO: Yes, that's all I was saying, though, Bob.

Dr. Anigstein: Okay. Perhaps I misunderstood.

DR. MAURO: Yes. Okay.

Chair Kotelchuck: This falloff on the figure 1, so the falloff is because the operational period ended between--

Dr. Anigstein: No, no, the falloff for the Cristofano and Harris data is of many facilities that they visited, starting in '48.

Chair Kotelchuck: Oh, I see. I see. This is the raw data at different facilities. Oh, okay.

Dr. Anigstein: Yes, exactly.

Chair Kotelchuck: Yes, yes.

Dr. Anigstein: And there's a dramatic change. There's a very good, if one were to do--

Chair Kotelchuck: Right.

Dr. Anigstein: -- a statistical correlation, you would get a very good fit to a steady decline--

Chair Kotelchuck: Right.

Dr. Anigstein: -- from '48 to about '54, when the data ends.

Chair Kotelchuck: And how -- I feel -- I'm not hearing other folks from our Committee, but I -- I'm -- so how does this fit in to the decision that we need to make about the acceptance or not on Ventron?

Ms. Gogliotti: Well, it sounds like NIOSH agrees that their approach might not be the best approach. So, at a minimum, they're going to need to look at that, and maybe we could have a technical call offline to discuss the specifics.

DR. MAURO: I agree with that, Rose.

Chair Kotelchuck: That would be fine. I don't feel in a position to make a decision at this point. I would also --

Member Clawson: No, I'm totally confused as it is now.

Chair Kotelchuck: Right.

DR. MAURO: Dr. Kotelchuck and Brad, maybe I could help a little bit. This is really simple. I think we're making -- unfortunately, it might be my fault -- making it a little more complicated than necessary.

All we're saying is you really shouldn't be using TBD-6000 as your starting point. There are other starting points that we represent here that look a lot better, and that includes the actual data you have for the facility itself and also Cristofano and Harris, which is more of a surrogate source of data, that represents better data as your starting point.

And then all we really did is say, well, just to give it a little bit more punch to our story, we did an example calculation saying, for example, you could do this and you would come up with these doses. And in our example, it turns out the doses were higher than the approach used by TBD. We're not saying that the approach we used may be the best, but we're saying that I think there's a better strategy.

And so I agree with Rose's point that I think we're at the point where NIOSH may want to revisit this, take a look at not only the real data measured at Ventron in the late, I think, 1940s, late '40s, but also the Cristofano and Harris, and use a judgment. This is where the discretion comes in on how best to use the available data to reconstruct the doses. And then they'll come in where they come in. It may be a little bit higher, or it may be lower than the doses that we calculated.

Chair Kotelchuck: That sounds good, and it will also allow us on the Committee some more time to -- we'll get some more materials and a little more time to

think through, to understand better the approach.

Mr. Katz: And, Dave?

Chair Kotelchuck: Yes?

Mr. Katz: Dave, this is Ted.

So the bottom line here -- thanks, John, that was a nice, little summary. The bottom line here is that NIOSH agrees, Dave Allen agrees that there's better source data to start from, whether it's from the site or whatever.

Chair Kotelchuck: Okay.

Mr. Katz: He agreed with that point. So the finding stands. The finding, SC&A's finding, is a positive finding. It's a good finding. But SC&A wasn't making a finding that the doses are double, or whatever. Whatever they come out, they come out to, but that wasn't really integral to resolving the case.

So I don't think the Subcommittee needs to do any more or wait any more to close the case.

Chair Kotelchuck: Because the approach is agreed upon?

Mr. Katz: Yes, the approach is agreed upon. NIOSH agrees that there was a mistake made in terms of -- there's better source data. Let's put it that way.

Chair Kotelchuck: Okay.

Mr. Katz: So there's nothing left to do with the case except when NIOSH follows up on its own, obviously, if it follows up and finds that it needs to fix something with that case, they'll do that, but that's part of their process for dealing with cases--

Chair Kotelchuck: Right.

Mr. Katz: -- that may need to change.

Chair Kotelchuck: We're approving the process, not--

Mr. Katz: Exactly.

Chair Kotelchuck: Not the resulting data?

Mr. Katz: Right.

Chair Kotelchuck: And the resulting PoC?

Mr. Katz: Right.

Chair Kotelchuck: That's helpful.

Other Committee Members, is that helpful to you?

Member Beach: This is Josie.

And, yes, that's much more clear. Thank you.

Chair Kotelchuck: Okay. Good. Good.

Member Clawson: It is, but the one thing, Ted, is when they come to a decision on this, I would like somehow to be able to know what they did.

Mr. Katz: Yes, and that's fine. NIOSH can report back and say what was the final result.

Chair Kotelchuck: That sounds good. So you'll inform us then, that that doesn't require -- that can be just a memo sometime between now and the next meeting.

Mr. Katz: Yes, and it could just -- send me an email for that, let you know what happened.

Chair Kotelchuck: That would be good. Okay. In which case -- thank you, Ted.

Mr. Katz: Sure.

Chair Kotelchuck: Then that would allow us to, in fact, close this.

Okay. Jim and Loretta?

Member Lockey: Yes, I'm fine with that.

Member Valerio: I'm fine with that as well.

Chair Kotelchuck: Okay. Well, then, I think that sounds good. And we will close on that.

Ms. Gogliotti: Okay, and this is actually two findings that are related.

Chair Kotelchuck: Right. That's 433 point, what, 2or 3?

Ms. Gogliotti: Correct.

Chair Kotelchuck: Okay. Good.

All right. Let's see what our next --

Ms. Gogliotti: And I have to apologize. 432.4, we were awaiting on TIB-11 to be issued. And when I checked for the meeting agenda materials, it was not posted, but it looks like it has posted between now and then. So I did not look at it, but we can save that for the next meeting.

Chair Kotelchuck: Okay. So we will carry over to the next meeting 433.4.

Ms. Gogliotti: 432.4.

Chair Kotelchuck: 432 --

Ms. Gogliotti: Point 4. Correct.

Chair Kotelchuck: 433, I thought.

Ms. Gogliotti: No, we were just talking about 433, but the TIB-11 issue is 432.

Chair Kotelchuck: Okay. Alright. Fine. So it's something that we skipped? Let me get it. I'm in DRS. I'm looking around.

Mr. Katz: Yes, Rose, what is that site? What site is that for?

Ms. Gogliotti: That's the uranium mill in Monticello.

Mr. Katz: Okay. Thanks.

Chair Kotelchuck: Okay. Oh, yes, okay, uranium. Okay. And I missed that. Okay. Uranium, 432. Okay, we'll do that at the next meeting.

Now do we have any other -- I don't think we have anything else from 14 and 18.

Ms. Gogliotti: That's correct. Everything else is waiting on -- actions.

Review Cases from Sets 19-21

Chair Kotelchuck: So now we're going into Sets 19 and 21. And I have the Bethlehem Steel cases and BWXT.

For other folks, now for Sets 19 and 21, we've been through the Category 1s, correct?

Ms. Gogliotti: Yes.

Chair Kotelchuck: And that's something to say to Jim and Loretta, that we normally, when we're coming into a new set, which we now have -- we're now functioning in terms of doing Category 1 and Category 2. The Category 1s are ones that really can be resolved quite quickly and there's agreement. The Category 2, which we're on now, are ones where there's some substantial disagreement or an agreement has not been made yet. And so it takes -- we're a little slower on that, but we're going through them.

So would you like to do the AWE, the Bethlehem Steel, first?

Ms. Gogliotti: Why don't we --

Chair Kotelchuck: Or what would you like to deal with?

Ms. Gogliotti: I have SRS pulled up now, and there's only one case in here.

Chair Kotelchuck: Pardon?

Ms. Gogliotti: I have SRS pulled up now, and there's only one case in this matrix that we have open.

Chair Kotelchuck: Okay.

Ms. Gogliotti: So if we can go over that and then jump to the AWEs?

Chair Kotelchuck: That sounds good. Let me see.

Ms. Gogliotti: That's 465.1.

Chair Kotelchuck: Okay. Alright.

Ms. Gogliotti: And this one we've been carrying for a while. It's an SRS case. The finding had to do with whether or not missed photon dose should have been or was assigned. Missed photon was assigned and whether or not coworker dose should have been assigned instead of missed photon dose.

Chair Kotelchuck: Okay. Go ahead.

Ms. Gogliotti: What it comes down to, basically, is professional judgment, in my opinion. The guidance document in TIB-6 is cited here, and it basically tells dose reconstructors to consider [the] information before they make their decision.

Based on that information, SC&A feels that coworker dose should have been assigned, which would be significantly higher than missed dose. The EE was unmonitored for the beginning of their employment, and then, the end of their employment they were completely monitored for external dose.

During the unmonitored period for external dose, there was monitoring and a positive PU bioassay. So, based on that, we feel that there was risk of external exposure that wasn't or isn't adequately accounted for by using missed dose.

NIOSH has agreed with us because these jobs which I have highlighted here we don't believe--

Chair Kotelchuck: Yes, okay, the occupation, I see

that.

Ms. Gogliotti: We have discussed this at multiple meetings now. And as of the June 27th meeting, we decided that we were going to leave it until after the Board meeting at Santa Fe, which happened, but I don't believe they discussed this in enough detail--

Chair Kotelchuck: Could you speak just a little louder? I'm still having an echo. I have an echo the whole time.

Ms. Gogliotti: So do I. It's very annoying and hard to focus.

Chair Kotelchuck: It is, but what it does also is it obscures when one is speaking. It is loud enough normally, but --

Mr. Katz: So if we want to try to resolve this --

Chair Kotelchuck: I'd love to.

Mr. Katz: Yes, one way to test it would be for everyone to get out of Skype for a moment and see if it goes away. If it does, then it's because someone has audio on in Skype.

Chair Kotelchuck: Got it.

Mr. Katz: If it doesn't, then I'm at a loss.

Chair Kotelchuck: Alright. Would folks like to do that?

Ms. Gogliotti: There is not anybody that has it on, though.

Mr. Katz: No one is on Skype right now?

Chair Kotelchuck: You mean no one is on Skype audio?

Ms. Gogliotti: Yes.

Member Beach: Maybe we should disconnect the phone lines and call back in.

Mr. Katz: Okay. We could try that, I mean. But the only other thing that normally does this is if someone is using a speaker phone, because then they're getting feedback right through their speaker phone.

Chair Kotelchuck: Right, right.

Mr. Katz: I don't know what other solution there is.

Chair Kotelchuck: Well, in which case let's just soldier on.

Member Clawson: Let's call back in. Let's just call back in.

Mr. Katz: Yes, give it a shot. Why not?

Chair Kotelchuck: Okay. We'll all get off and then get back in, and make sure that we don't put audio on for the Skype. Okay. Let's do it. We'll be back on in a few moments, folks.

(Whereupon, the above-entitled matter went off the record at 1:41 p.m. and resumed at 1:46 p.m.)

Chair Kotelchuck: Okay. I'm on. Can we get the screen working again, then, without the echo?

Ms. Gogliotti: One second.

Chair Kotelchuck: Sure.

Ms. Gogliotti: I got cut off from that meeting.

Chair Kotelchuck: Sure.

And then we're going -- we've just said we're going to hold SRS for the next time, correct, the 465?

Ms. Gogliotti: We can certainly hold it, but I don't think that the issue is going to change.

Chair Kotelchuck: Then let me just clarify. You are waiting for the TIB-11?

Ms. Gogliotti: No. We are holding that one, but we're talking about--

Chair Kotelchuck: And that is for the Ventron case?

Ms. Gogliotti: No. That one was the uranium mill in Monticello.

Chair Kotelchuck: Okay. Yes.

Ms. Gogliotti: But we are currently talking about --

Chair Kotelchuck: Yes, ma'am, that's my notes.

Ms. Gogliotti: -- 465.1, which is an SRS case.

Chair Kotelchuck: Yes. Okay. Fine. Charge this to my poor notetaking.

Ms. Gogliotti: One moment. Let me get back into the Skype thing. For whatever reason, it won't let me present.

(Pause.)

Mr. Katz: So while Rose is getting that back online, I think the situation here is we have a difference in judgment and no resolution to that.

Mr. Siebert: Well, this is Scott.

If you would like, I can probably explain a little bit more clearly or in a little bit more depth why we believe the person was actually being monitored, and that the records just don't demonstrate that.

Mr. Katz: Yes, by all means, Scott.

Chair Kotelchuck: Wait a minute. Let me -- what case are we on? Where I'm (telephonic interference) with this.

Mr. Katz: We're on SRS, 465.1.

Chair Kotelchuck: Okay. Good. Thank you.

Mr. Katz: Sure.

Mr. Siebert: Okay. This is Scott.

The issue really comes down to the Savannah River

Site didn't record zeroes during the timeframe of 1972 through 1988. So there are times where a year appears to either have a zero or appears to be missing, and it's not clear whether the individual was not monitored or if they were monitored and it was all zeroes. And that's where it brings in TIB-6 that we discussed a couple of minutes ago, which says to look at additional data such as internal and other external monitoring and so on.

So the additional things that we looked at in this case indicate that we believe the individual was actually monitored with external dosimetry badging. First of all, in the CATI the individual indicated that they were always wearing a dosimeter badge, and they also indicated that it was a monthly -- a routine badge, so not monthly. I apologize. It is a routine badge. So that indicated to us that at least most of the time they seem to be saying that they wore dosimetry, and they did say always. So we took that into account.

Also, the HPAREH results, it had years of '84 and '95 with no results. The years are listed with no results. Generally, that demonstrates that the annual doses, they're not -- they're blank; they're just not there and missing, which generally indicates to us that the individual was being monitored but they were all zero.

So we really didn't have an indication, especially in '84 and '85, to believe the person wasn't being monitored, and we did have indications to believe that they were being monitored. That left 1983, the earlier timeframe, which really became a discussion of basically extending the '84 and '85 thought process back, and there was no indication they changed their type of work.

As was mentioned earlier, they had -- it's highlighted on the screen right now actually -- the individual did the same work the whole time they were employed. And if you look at the monitoring results, there's sporadic positives that indicate that the person was

being monitored at times. And it really seemed to indicate to us that they were always being monitored; it's just the Savannah River Site was not reporting the zeroes.

So that's the general thought process as to why we did missed, per TIB-6, rather than determining it was coworker and believing the person was actually unmonitored.

Chair Kotelchuck: Okay. That's a clear argument.

Response?

Ms. Gogliotti: Well, in this case the PoC was quite low, not anywhere near 50 percent. So in either case, this didn't make a compensation decision.

Chair Kotelchuck: Okay.

Ms. Gogliotti: Which, in that case, you generally would go more claimant-favorable.

Chair Kotelchuck: Right, right. Which would be the NIOSH approach.

Ms. Gogliotti: No, that would be the SC&A approach.

Chair Kotelchuck: SC&A?

Ms. Gogliotti: Which would be assigning the coworker dose.

Mr. Siebert: But that doesn't make it wrong that we didn't go more claimant-favorable because it was a low PoC, if we believe that he was monitored and they were zeroes.

Ms. Gogliotti: No, but when there is some amount of uncertainty, it would be the more claimant-favorable approach.

Chair Kotelchuck: Well, but they make an argument why in terms of -- I assume they've been looking at plenty of other SRS cases and that this seems to be a pattern that fits, as opposed to looking at an

individual case.

I am somewhat persuaded by the NIOSH argument, and the argument that if we do it another way, it's more claimant-favorable. But the question is does this appear to be the way people were monitored and then recorded? And it seems to me the argument, NIOSH argument, is sound. I don't know.

What do other folks think on the Subcommittee?

Member Beach: I tend to think we always follow the most claimant-favorable approach, which I would assume NIOSH would want to do also, unless there was some real specific reason not to in this case.

Member Clawson: This is Brad.

The only thing I heard as to the reason why they did this was because in the CATI report said that he always wore his dosimeter.

Mr. Calhoun: That and the fact that we have knowledge of how data was recorded, what Scott went over before, is that during a certain period, there were many times when we would have blanks, when that indicated that there was no positive reading because that's just how they did it during those times. And that's when we did it that way, was during those periods.

Member Clawson: And that period is when?

Mr. Siebert: That's 1972 through 1988. And this claim starts in '88 and expands to the 1988 timeframe. That's the timeframe that we apply this (telephonic interference) TIB-6.

Mr. Calhoun: That's really important, too, is that once the practice is changed, the person's job didn't change, but we did have more information that he was being monitored, just like we assumed prior to, I think the date was '88.

Chair Kotelchuck: Yes. I mean, this is a case where the person says that they had been monitored.

There's a pattern that they have seen with the SRS site and are pretty confident that that's the proper interpretation of the way things were done there. I don't -- admittedly, the other choice would be more claimant-favorable, but I don't -- if you're really quite confident that this pattern exists and you've seen it, and you've seen a lot of cases for SRS because it's a big site -- so, I'm a little bit, I don't know, I'm still somewhat persuaded that NIOSH ought to go through and do it as they believe that the evidence indicates is done. I mean, I think they're basing it on evidence, and the pattern is part of the evidence.

But other or further discussion? I don't know, Jim or Loretta, you may feel a little -- toe in the water. I don't know.

Mr. Katz: Dave, just to amplify that point you just made, I mean, the claimant-favorable policy, that gets applied whenever you can't choose between two alternatives.

Chair Kotelchuck: That's right.

Mr. Katz: The data doesn't weigh one way or the other.

Chair Kotelchuck: Yes.

Mr. Katz: If you have a weight-of-the-evidence judgment on one side or the other, you go with the weight of the evidence, not the claimant-favorable.

Chair Kotelchuck: Yes, yes.

Mr. Katz: But, anyway, that's just the general policy for how you apply claimant-favorable--

Chair Kotelchuck: And I think that seems to me what's fitting here, that there's evidence --

Member Lockey: David, Jim Lockey. I think we should just -- we've always followed that general policy. I think we should continue.

Chair Kotelchuck: Yes. I would agree.

Ms. Gogliotti: Well, I don't think the Board is being asked to make any decisions about how NIOSH does things. We're looking at this individual case. And it seems to be a different professional judgment, in my opinion.

Member Clawson: Rose, I couldn't hear you. I'm sorry. What did you say?

Ms. Gogliotti: This seems to be more of a professional judgment issue pertaining to just this case.

Member Clawson: I agree with that, yes.

Chair Kotelchuck: Josie, you were concerned about, I mean--

Member Beach: Well, I agree that it is based on professional judgment, and I don't really have any more to add than that.

Chair Kotelchuck: Yes. I think we ought to close it on the professional judgment then.

Mr. Katz: Yes. I mean, I think, then, it's not an error.

Chair Kotelchuck: It's not.

Mr. Katz: It's professional judgment, and that's the result. You can close it, yes.

Chair Kotelchuck: And they're persuaded that there's enough evidence to make a professional judgment the way NIOSH did.

Mr. Katz: Right, right.

Chair Kotelchuck: Okay. Well, then, I think that. -- Loretta, do you concur?

Member Valerio: I do.

Chair Kotelchuck: Okay. So let's close this now and move on.

And let's see, I'm just looking at times. We

reconvened at 1:00. Typically, sometime around 2:30 or 3:00 we'll take one more break, but we should go on now to which cases?

Ms. Gogliotti: The next one is 477.3.

Chair Kotelchuck: Okay.

Ms. Gogliotti: And that's a Bethlehem Steel case.

Chair Kotelchuck: Bethlehem Steel, sure, the AWE [file]. Okay.

Ms. Gogliotti: And in this particular case, this is the EE's cancer diagnosis. As we know, these particular claims are --

Chair Kotelchuck: Okay. Yes, yes.

Ms. Gogliotti: -- especially complicated for a number of reasons.

Chair Kotelchuck: Yes.

Ms. Gogliotti: With this case, NIOSH did their runs and provided us with CADW files for the case, but they did not provide any IMBA files. So our dose reconstructor went through and did IMBA runs just to confirm the results of the CADW. And normally, we don't do IMBA runs. We just do confirmations of IMBA files. But since we didn't have them, we had to reconvert it.

And it looks like when we did that run, it didn't match up. We did some investigation, and it looks like one of the intake regimes had a wrong starting date. So SC&A was incorrect with this finding, which we wouldn't have had if the IMBA files were provided.

Chair Kotelchuck: Yes. What do NIOSH folks think?

Member Clawson: Okay. Well, let's discuss this. SC&A had already said that they made a mistake on this one. So there really isn't an issue, correct, Rose?

Member Beach: Well, wait a minute. They didn't

make a mistake. They didn't get the data in order to do it correctly, right?

Ms. Gogliotti: We didn't get the initial data. So we had to make our own run.

Member Beach: Alright.

Ms. Gogliotti: And our own run was found to have an error in it.

Chair Kotelchuck: Your own run?

Ms. Gogliotti: Well, yes, because NIOSH did not provide us with their IMBA files.

Chair Kotelchuck: Oh, oh, I see. It's not that you were detecting that they hadn't. It's that you did not have the data. So your run was compromised?

Ms. Gogliotti: Well, our run had inadvertently changed one of the intake regimes slightly.

Chair Kotelchuck: Right.

Ms. Gogliotti: So our dose did not match up with NIOSH's --

Chair Kotelchuck: Got it.

Ms. Gogliotti: -- and we weren't sure why. But it was our error.

Chair Kotelchuck: Okay. And so you're recommending to close it?

Ms. Gogliotti: Correct.

Chair Kotelchuck: Well, that sounds fine.

Member Clawson: I agree. This is Brad.

Chair Kotelchuck: Yes. That was something straightforward. Good.

Ms. Gogliotti: Okay. The next one is 472, and this is a Carborundum case.

Bob, are you still on the line?

Dr. Anigstein: Yes, I'm here.

Ms. Gogliotti: Okay. I just wanted to confirm.

Dr. Anigstein: Can you hear me?

Chair Kotelchuck: Yes, we can.

Dr. Anigstein: Okay. I wasn't sure if it was on mute or not.

Okay. Shall I go ahead and summarize the Carborundum case?

Ms. Gogliotti: Just the findings and observations, yes.

Dr. Anigstein: Well, this hasn't really been discussed by the -- -- okay. I'll have to do it slightly differently.

The basis of the Carborundum case is this case was done four years ago, and NIOSH has since responded to an SEC petition which actually arose from this case. And they have proposed a radically new, radically different dose reconstruction methodology than the one that was used here, and we had a Carborundum Work Group formed. There were meetings. It came before the full Board on two occasions.

So there was a whole -- the way this case was done has been completely superseded by a new approach. So I don't know how profitable it is to go into the details of these findings because NIOSH has essentially agreed to change the methodology in the future. So I'm not quite -- perhaps I need some guidance on how to proceed, given that.

Chair Kotelchuck: So if that was proper methodology at the time, and now it's been superseded, and they will use the superseding process?

Dr. Anigstein: Yes. Well they have proposed a superseding process, but it has not actually been

adopted to any actual case, any real cases. They created two hypothetical cases which were reviewed by SC&A and critiqued and found to be mostly acceptable because it was based on a lot of exchanges of discussions.

Chair Kotelchuck: And we have -- there's no -- is there a Carborundum Working Group?

Dr. Anigstein: Yes, there is.

Chair Kotelchuck: Is there not?

Dr. Anigstein: Yes, there is.

Chair Kotelchuck: Is that something that they should be inputting on?

Mr. Katz: Dave?

Chair Kotelchuck: Yes?

Mr. Katz: So if I can make a suggestion? On this, NIOSH may have to help answer this question. But if it's the case that the methodology used for this had problems, was incorrect, SC&A had findings that were not correct. And that much is already determined because NIOSH has gone on and changed its methodology or is in the process of changing its methodology to deal with those defects. That's all you really need to know to close this case.

I mean, the new approach will get reviewed by another dose reconstruction case review. But if that's the situation, then -- and I guess NIOSH can confirm it or say it's wrong -- but if that's the case, then you can close this and wait until your next Carborundum case.

Dr. Anigstein: However, there are a couple of -- let me give you a brief -- there are some findings that are very specific to this case which are not addressed by the other things. At least I'm not sure they are.

And the first one was that this individual was classified as a clerical worker, and we find that that

is incorrect.

Carborundum had two operating periods. The first one was a brief period in 1943, which lasted about three months, where they were performing tests of various abrasive wheels for centerless grinding of uranium rods. And such wheels would have been produced in the molded abrasives department, and that happened to correspond to this EE's job designation. But we feel that it's very likely that he would have participated in these tests because they were using the things that he made. So who would be more logical to bring in? And NIOSH denied that he had any connection with that operation. That's one principal disagreement.

And the other disagreement is that there was a second operational period, which consisted of uranium and plutonium being handled in glove boxes. And initially, NIOSH used an erroneous MCNP model. There was just a coding error which made the doses almost nonexistent. In reality, they're substantial. And they have since performed a new MCNP analysis which is much closer to the mark (telephonic interference) because of the model of the glove box they used was an outdated model that was part of the evaluation of TIB-10 for glove box workers. And subsequently, that model, that design of the glove box, was withdrawn by NIOSH, but --

Chair Kotelchuck: Bob?

Dr. Anigstein: Excuse me?

Chair Kotelchuck: Bob, it seems to me you're moving ahead on the other observations where there may be issues.

Dr. Anigstein: Yes, I am. I'm sorry.

Chair Kotelchuck: No, that's okay, but just in terms of order and in terms of our thinking about it, the Observation 1 was what we were talking about initially, right, the Carborundum Observation 1? Let me see. I'm looking at my notes. I'm sorry.

And that was the one that was superseded, right?

Dr. Anigstein: Yes, Observation 1 was responded to.

Chair Kotelchuck: Okay. Can you hear me?

Dr. Anigstein: Yes.

Chair Kotelchuck: Okay. The 472, Observation 1 we were starting with, and you said it was with respect to that that you were talking about there's a superseding process, am I correct?

Dr. Anigstein: Yes, yes.

Chair Kotelchuck: Okay. And so that doesn't -- - I mean that's something that I think we could close on, and then get to the other observations one by one.

Dr. Anigstein: Yes. Well the response, my response at the end to Observation 1, to NIOSH's response, Scott Siebert's response, was that assuming that NIOSH adopts the methodology proposed by Tom Tomes--

Chair Kotelchuck: Yes.

Dr. Anigstein: -- and then we recommend closure.

Chair Kotelchuck: Yes. Right. And that sounds reasonable.

And I don't know, do others want to come back and talk about that? And then let's go on to the next observation. There are a total of six, seven observations that I had in my notes that we were holding on.

Dr. Anigstein: Okay. Observation 2 I just spoke about. That's about the workers, the job assignment.

Chair Kotelchuck: Right. Can we close Observation 1, folks? Do I hear an objection?

Member Clawson: This is Brad. I agree, let's close it.

Chair Kotelchuck: Okay. We closed Observation 1. Let's go on to Observation 2. You were addressing a number of them, and that's why I --

Dr. Anigstein: I guess I was going too fast.

Chair Kotelchuck: Yes. I mean, we need to close them one-by-one, unfortunately -- or fortunately.

And this was the one where the question was whether the clerk/other category was appropriate. And you were saying that the person did work in that -- the person did work and get exposure in that period, is that correct, that he was--

Dr. Anigstein: Yes, he was employed during that period. Yes, his employment did include that period.

Chair Kotelchuck: Yes.

Dr. Anigstein: And the nature of his work --

Chair Kotelchuck: Right.

Dr. Anigstein: -- was such that it was plausible and perhaps even likely that he was involved in that machining operation for the testing.

Chair Kotelchuck: Right. And the question is you're saying that NIOSH should look into this?

Dr. Anigstein: Yes.

Chair Kotelchuck: And justify it?

Dr. Anigstein: Well, yes, they did respond, and we simply -- we don't agree with their response.

Chair Kotelchuck: Okay. How about, let me hear NIOSH's response? Looking on the materials that were given to us, my -- pardon me. I am off the grid. I'm just going back to the original materials that we sent and were reading for this meeting.

Am I the only one who's continuing something they call loading? I don't know. Okay.

Mr. Katz: Yes, that's just you, Dave.

Chair Kotelchuck: Yes, it's just me. Okay. Let's -- it is just me.

It's certainly reasonable to ask that NIOSH look into it.

Scott, could you talk about your response? And I'll be reading and looking at it again while you're talking.

Mr. Siebert: Sure.

Chair Kotelchuck: Scott, your response to that was?

Mr. Siebert: We agreed, earlier on, when we did this claim, we had the individual as clerk/other, which we agree is not probably the categorization we would use with the updated methodology, the new information that we have from Carborundum.

Now there's a lot of information in there that basically states that we had no specific information he worked with radioactive material. The individual was a mold operator starting in '35. So was doing mold operator work well before the period where radioactive materials were onsite, as well as after.

We did mention the fact that his obituary mentioned that he was there for that amount of time. Now in SC&A's response, they said that we wouldn't expect the obituary to mention that he worked with radioactive material for 119 days. I absolutely agree with that. However, we were just pointing out that it discussed that he did the same type of work the whole time he was working at Carborundum.

So it basically comes down to the fact that we agree that other/clerk, which is a very, very low exposure scenario, was not appropriate. We would suggest the individual actually is put in a supervisor/non-rad worker personnel, which is a higher category than was previously used. It's not an operator category.

Chair Kotelchuck: Right.

Mr. Siebert: And our thought process is still the fact that, as a mold operator, it really didn't make sense to us that he would be in the area doing the grinding work. Now could he be in the same general production area when the grinding work was done? Yes, we agree with that, which is why we're talking about using the supervisor category. But actually being an operator and grinding, which is not the type of work this individual did, that didn't seem to make sense to us. So that's where we are right now.

Chair Kotelchuck: Okay. Alright.

Dr. Anigstein: And can I respond to that?

Chair Kotelchuck: Please. Sure.

Dr. Anigstein: Yes. Okay. My response to that is this was a short time that they were doing-- the reason Carborundum was asked to do this work by AEC or the AEC contractor was that that was their product, was making grinding wheels. And so they said, why don't you test your grinding wheels to see which ones do the best job on uranium? And I'm just being very subjective now, and I'm simply saying I would imagine I would call in the person who made the grinding wheels to participate in those tests. Particularly, and it's not the changing of the whole job category, because this was a short-term, temporary work. And who would know grinding wheels better than somebody who made them? I mean, it's at least plausible that he would have had that assignment for a time.

And the fact that in that DOL initial case, there was a sworn statement by one of the survivors, one of his children, that he did work with radioactive materials, that he was exposed to radioactive materials. It was not the legal -- there was a legal representative whose name was listed, but that's not who signed the statement. The statement was signed by his survivor. So we have sworn testimony saying that he worked with radioactive materials. And unless we're going to impeach that testimony, I think it has to be honored.

Chair Kotelchuck: Okay. How do we resolve this in an observation? I mean, I think it sounds like there's evidence that, in fact, the person was exposed to radiation. And now Scott said this is the way we would do it. You don't agree on how you would do it, what would be the better way to approach resolving it. But it's an observation. Are we -- you're not making a finding saying he ought to do it? You're making an observation that I wish you would have done it? And they say they don't want to do it, right, because they think they would do it differently? Also correctly, professional judgment again.

Folks on the Subcommittee, what? I'm talking a lot and maybe not making much progress. Folks, what are you thinking?

Mr. Siebert: This is Scott.

I just want to point out that although this is an Observation No. 2, basically the same comment is made in Finding No. 6. And to be honest, if I remember correctly, our response is the same for Finding No. 6 as it is for Observation No. 2. So I wouldn't say focus on the fact that it's just an observation because it's also Finding No. 6.

Chair Kotelchuck: Okay. Alright. I would like to hear input from others on the Subcommittee or you, Ted.

Mr. Katz: Yes, this is Ted here. But this is not really for me to address because this is about really all of your judgments as to what's appropriate here, not mine.

Chair Kotelchuck: Right. No, I'm trying to think how to handle this and what our options as a Subcommittee are in trying to resolve this disagreement.

Mr. Katz: Right. Well, I mean if the Subcommittee Members are persuaded together in one direction or another, then you make that finding, whatever that is--

Chair Kotelchuck: Right.

Mr. Katz: -- to sort of break the stalemate here.

Chair Kotelchuck: Right. Let's put it this way. I'm sitting here speaking, and I'm the only Member of the Subcommittee opening my mouth on this.

Member Clawson: You're not the only one. I'm just waiting to get an opening.

Chair Kotelchuck: Alright. Please come on in.

Member Clawson: And Josie's trying to chime-in, too, but I haven't heard her.

So I guess, you know, I'm trying to figure out, too, what you want, what we should do with this? I don't think we're going to find anybody to interview in that time period, are we?

And I thought this came back to -- and correct me if I'm wrong, Scott -- that you guys used that he was not a part of the work out there, is that correct?

Mr. Siebert: Well, like you say, it is a while ago and you don't have a lot of good information as to how their areas were set up. By the way, everything I'm saying, I want to make sure -- Grady is listening carefully and can overstep me if I say anything that he's not comfortable with, but our basic thought process is the fact that I understand what Bob is saying, but I don't see that really the mold operator would be doing the grinding testing. That's just the thought process that was used that makes more sense to us, that, yes, the mold operators -- because we don't know the configuration of the facility. Mold operators could have been in the general vicinity where the grinding was done, but it doesn't really make sense to us that he was the individual doing the grinding, which is what the production category would apply to. And that's our general thought process on that.

Member Clawson: And I understand that, but one of

the things, too, that I've seen is usually when people do this, they're also the ones that are out there testing that, too. And that's where I agree with Bob on this. I don't know how we're going to be able to bring them in, but my thought process is how better way to know your product than to go out there and actually use it and see what it's going to do?

Dr. Anigstein: Particularly since they were, presumably, day-by-day using different grinding wheels, see which one was -- you know, this one isn't so great; let's try something else. So it would be very important to know how to make or improve the grinding wheel to do a better job.

Member Clawson: Than to go out there and do it yourselves.

Dr. Anigstein: Yes.

Member Clawson: That I agree with you on. I'm just trying to see how we can proceed forward with this. Because I agree with you, Bob, wholeheartedly; I do. And I have never liked that a lot of times we categorize somebody in a certain position and say that they couldn't have ever done those things. I don't like that. But I'm just trying to figure a path forward to how we could bring this to a resolution.

Mr. Katz: Yes, so your options, Brad, are, one, like the case we dealt with earlier, you could say this is a matter of judgment, and judgment is reasonable on either side; there's nothing incorrect. So we just leave this at that as a matter of judgment. Or if you feel that the evidence is very compelling on one side or the other, then you say we think this is correct or we think that's correct. So here are, you know, three options: correct, incorrect, or just a matter of judgment, and close it.

Chair Kotelchuck: Right.

Brad?

Member Clawson: Go ahead.

Chair Kotelchuck: Josie, were you trying to say something?

Member Beach: Can you hear me now?

Chair Kotelchuck: Yes, I can. We can.

Member Beach: Oh, wonderful. I was speaking and I ended up having to re-call back in.

Chair Kotelchuck: Okay.

Member Beach: I was going to ask Scott -- and I appreciated Brad's argument -- Scott, how much weight did you put on the survivor's statement that he worked with material, radioactive material? I know you commented on the legal representative, but I didn't hear anything about his survivor.

Dr. Anigstein: No, the form, I think it's called the DOL initial something. DOL Initial Case is the title of this form. And that's a big file which has xerox, which has copies of everything from people's birth certificates to everything else. But at the front are the forms filed as part of the claim.

And the form carried the name of the legal representative but was signed by the survivor. And therefore, it's the survivor that is responsible for making this statement that he was exposed to radioactive materials. And I believe that we need to give credence to it, and I think that was a misunderstanding that this was filled out by the legal representative. It's the person who signs it that's responsible. And the fact that -- anyway I just think -- but I think that's confirmatory evidence.

By the way, I do want to explain why there is both an observation and a finding on the same topic. Because as we went through it, as we were preparing the DR, we have a certain form that we follow -- or template that we follow. And so earlier in the DR, we commented on external exposure. Well, for external, the dose from the external, the external dose from uranium is on the small side, particularly in this

respiratory organ cancer case.

And consequently, we said, yes, we disagree with this, but it's not going to make much difference. So, therefore, we made it an observation. Whether he gets this external exposure or that external exposure, it has a small impact on his overall dose.

But then, further on, when we did internal exposure, it made a tremendous difference because the internal -- the dust-loading and, therefore, the intake from the centerless grinding is extremely high from the -- again, we were talking before about Cristofano and Harris, but, no, actually it's the other one, Harris and Kingsley report. Those were some of the highest dust exposures.

So to whether he gets the full intake or 5 percent of that intake for internal makes a tremendous difference in the dose and the PoC. That's why it's an observation in one case because this is for purposes of external, and a finding for purposes of internal.

Chair Kotelchuck: Okay. Yes. Thanks on that.

But I'm thinking about the observation. It seems to me that the NIOSH people don't have any firm evidence that the person was not exposed. As they said, it's clear the person was exposed, and the question is, how do you handle it? And they would like to put it, rather than a clerk, into supervisor and non-radiological work, which is another category, but it's not compelling that the person didn't do that work. On the other hand, we have some evidence that the person did do the work, the signed statement by the wife. And we all agree that there was some exposure in this case then.

And we can't ascertain what really happened now because it's too late, right? This is the next century. So I'm impressed that since we know that uranium was only onsite for 119 days, I would say there's no compelling reason to say which was the better description of exposure, in which case we ought to be

friendly, we ought to be worker-friendly and just say that the worker, for 119 days, that worker was doing the grinding, doing the radioactive work.

Dr. Anigstein: And also I would like to quote from TBD-6000, and this is a direct quote, where the claimant's job category is unknown or does not support, corresponds to a listed category, the maximum air-sampling data should be used.

Chair Kotelchuck: Yes. And I think that makes sense. So I'm persuaded that in this case we don't have strong evidence for either choice to determine how to handle it. And we know -- but we all agree that the person was exposed. Since we have a very limited amount, we actually know the time period in which the person could have been exposed, then why don't we say that we should -- one that was claimant-friendly for 119 days?

Member Clawson: I agree.

Chair Kotelchuck: In which case, yes, that makes it good.

Others?

Member Beach: I agree also. This is Josie.

Chair Kotelchuck: Yes.

Member Valerio: I agree also. This is Loretta.

Chair Kotelchuck: Yes.

Member Lockey: Yes, Jim Lockey. I agree, too.

Chair Kotelchuck: Yes. Okay. So I think we can close it with the understanding that we would be claimant-friendly in this and would take the approach that SC&A suggested.

Mr. Katz: Okay. So you're closing actually Finding 6, right? So that's the finding.

Chair Kotelchuck: Yes.

Mr. Katz: The observation really doesn't matter.

Chair Kotelchuck: Right, but the observation and the finding, yes. Yes.

Mr. Katz: Yes, it's the same result.

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

Okay. Now let's see. Maybe we can -- I've been -- by the way, I have tried several times to get back onto Skype, and I haven't been able to. So I'm just using the materials and following through the materials that were sent to us.

Member Clawson: I noticed that you keep popping up, Dave, saying that you're waiting in the lobby.

Chair Kotelchuck: Really?

Member Beach: Dave, this is Josie.

Before you move on--

Chair Kotelchuck: Yes?

Member Beach: -- I want to be clear. So Observation 2, and then Ted said observation -- or Finding 6, but --

Mr. Calhoun: Can anybody hear me?

Chair Kotelchuck: Yes.

Mr. Calhoun: Okay. I've been trying to speak for the last 10 minutes, and evidently, my phone wasn't working. So I had to hang up and--

Chair Kotelchuck: Oh, I'm sorry. Okay.

Mr. Calhoun: No, it wasn't you. It was probably a problem here.

Chair Kotelchuck: Yes, yes.

Mr. Calhoun: So I don't know what you jumped to while I hung up and called, but I just wanted to put

my thoughts in here.

And I really kind of support Scott's approach in the way we did this. And I don't believe that a mold-maker would go out on the floor and do the grinding. I believe that in most union-type shops that I worked at, the mold-maker very well may go out on the floor and watch an operator do it. It's possible that they wouldn't even be allowed to do different jobs like that.

Chair Kotelchuck: Well, while you were off the phone--

Mr. Calhoun: And the increased exposure that a supervisor would get over what we assigned seems much more plausible than assuming that a mold-maker, because he made the product, used the product. You can find a million different examples of someone who makes the product but not using the product on the operations floor. That's more of a leap, I think.

Chair Kotelchuck: Well, in the -- while you--

Mr. Calhoun: That's where I stand, and I think we'll probably stick with that approach.

Chair Kotelchuck: Well, while you were on the phone, we were coming to a different conclusion as the Subcommittee. And I made the argument that we know there was exposure, but we don't know -- there's no proper categorization of what this person's job task was that caused the exposure.

Both of -- we're all -- we're speculating, and speculating reasonably in both cases, but it's speculation. And there is some evidence, and there's an agreement on all of our parts that there is some level of exposure, that the person was in the worksite during the 119 days that uranium was there. There is some evidence that he had exposure from the person's wife.

And so we were, then, in the process of deciding, just

as you came back on the phone, that since neither side can really pin down a really appropriate exposure category, that we should, then, be claimant-friendly and just say the person was working with uranium exposure, as if they were working with the material, with the uranium, for those 119 days. It is a claimant-friendly thing.

And we sort of decided it. I didn't realize you were off the phone.

Mr. Calhoun: Yes, and I think that this really comes down to the whole professional judgment thing again. It's just one of the things that we've worked through dozens of times here in this Committee.

My kids would probably tell somebody that I worked with radioactive material because I was at Fernald for 11 years, but I didn't touch any.

Chair Kotelchuck: Right.

Mr. Calhoun: It's just, you know -- and I think I'd put a little bit more credence on the fact that he was a mold-maker, and I think that jumping to the thing that he tested his grinding wheel seems like more of a risk. Now we said that we probably believe he got more exposure than the clerical that we assigned initially. And now that the TBD has changed significantly, we would go with supervisory-type category. And I could see the mold-maker, best case, sitting there watching somebody else who was trained to work with these things do the work, and his exposure would be very similar to a supervisor, in my opinion.

Chair Kotelchuck: Right. Well, I don't agree with you that it's simply professional judgment in terms of there is not hard evidence of what -- where the person worked and what the nature of the person's exposure was.

Both groups are professional and sensible. But without evidence, I just feel as if, then, you just have to go with the claimant-friendly. And it's not a

question of professional judgment.

What you and Scott are saying may actually be right if we could find the truth, but the truth escapes us. The truth is in the past that cannot be confirmed by, for example, speaking to survivors.

So I honestly don't -- I haven't changed my mind in this discussion.

Do other Committee Members, do you want to say something, or are you persuaded that maybe we were making a faulty judgment? Or should we stick to what we were saying?

And I am sorry, Grady, that you got cut off in the middle of an important conversation.

Member Clawson: This is Brad.

I still stand on where I --

Chair Kotelchuck: Yes.

Member Clawson: -- because, you know, Grady, me and you have discussed this numerous times. We can go either way. But, also too, the weight of the evidence, too, and you guys I think on this side are a little bit short. So it is what it is.

Chair Kotelchuck: Yes.

Member Beach: Can you hear me, Dave?

Chair Kotelchuck: Yes.

Member Beach: I stand also. I think I agree with your argument.

Chair Kotelchuck: Yes. I think, Grady, unfortunately, I think we disagree, and I think the Subcommittee is affirming the Finding 6 and Observation 2. And I think it's worth moving on. We have discussed this for quite a while.

Mr. Calhoun: Okay.

Chair Kotelchuck: As two professionals, we have different judgments on this. Both are worthy of respect. Okay. Close.

And do we want to go -- it's 2:40. Maybe this is a good time to stop, it's 2:40, and take a 20-minute rest break, and then come back at 3:00 and go through 4:30, starting with Observation 3 on Carborundum.

Member Lockey: How long a break, David?

Chair Kotelchuck: Twenty minutes. Come back at 3:00 Eastern daylight time. Okay. Speak to you all later.

Mr. Katz: Okay. Thanks.

Chair Kotelchuck: Bye-bye.

(Whereupon, the above-entitled matter went off the record at 2:39 p.m. and resumed at 3:04 p.m.)

Chair Kotelchuck: Alright, folks, so we're on Carborundum Case 472, Observation 3, and calculation of organ dose distributions in the IREP info.

Dr. Anigstein, do you want to --

Dr. Anigstein: Yes.

Chair Kotelchuck: And we'll do it observation by observation --

Dr. Anigstein: Okay.

Chair Kotelchuck: -- talk about it, resolve it one way or the other, and move on.

Dr. Anigstein: Okay. Shall I go ahead?

Chair Kotelchuck: Please, yes.

Dr. Anigstein: Okay. Well, Observation 3 is --- I was puzzled by the IREP input, the organ dose, the external organ dose distribution. And there was a

correction in Table 4.1a of OCAS-IG-001. And there was an adjustment factor for rotational. Well, that's appropriate to apply when you're using film badge dosimeters and trying to relate the film badge reading, which is, of course, normally worn on the front, to a different exposure geometry, but the radiation is coming from different sides.

But that's not what was being used here. Here they were using simply the calculated, the modeled dose rates from TBD-6000, which were based on MCNP calculations done by Anderson and Hertel, and published in Health Physics -- not Health Physics, I don't remember the journal. And therefore, that kind of a correction was inappropriate, and that's what we're referring to.

Chair Kotelchuck: Okay.

Dr. Anigstein: I have to admit there's a slight error where I first attributed that table correctly to OCAS-IG-001, and then, I attributed it to Allen 2001, which is how I designate the TBD-6000. So, where it says Allen 2011, Table 4.1a, it should be OCAS-2007.

Chair Kotelchuck: Right.

Dr. Anigstein: Anyway, that's a trivial--

Chair Kotelchuck: And do NIOSH folks want to say something about it? Although there is a discussion about the Working Group adopting a different approach by Tomes, that Tomes suggested, Tom Tomes. But would you like to respond, NIOSH, Scott or whomever?

Mr. Siebert: This is Scott.

I know he's going to be mad at me, but I would defer to Dave Allen on these types of questions.

Chair Kotelchuck: Okay.

Mr. Siebert: Sorry, Dave.

Chair Kotelchuck: Okay. Dave, right. I think I'm

waiting for Dave Allen, right?

Ms. Gogliotti: I think he's having trouble connecting.

Chair Kotelchuck: I mean, partially, this is superseded by the fact that the Work Group recently met --- not recently, it was actually a year ago-- and adopted Tom Tomes' proposal, and they said they're comfortable with that. And if NIOSH is comfortable with that, using that, and, in fact, it should be using it if it's directed by the Work Group, then it seems to me there's nothing to resolve, that the case would be closed.

Member Clawson: I know, Dave, but you need to give Dave Allen an opportunity to chime in because this may be a little bit different than I thought what we agreed.

I also want to make sure that I'm on the same page as what I think I am.

Chair Kotelchuck: Okay. Sure, sure. Okay. Good.

Member Clawson: I think we ought to just put Scott Siebert back on the hot seat and make him explain it real quick in 20 words or less.

Ms. Gogliotti: Ted, can I say something?

Chair Kotelchuck: Go ahead. Sure.

Ms. Gogliotti: Dave Allen is calling back in again.

Mr. Allen: Yes, this is Dave Allen. Can you hear me now?

Chair Kotelchuck: Yes, we can. Thank you.

Mr. Allen: Okay.

Chair Kotelchuck: We're waiting for you.

Mr. Allen: I think I had the same problem Grady had. I've got a mute button right in front of me. I pushed it on and off several times, and nobody could hear me.

Member Beach: You know, that happened to me, too, and I had to call back in. This is Josie. Weird.

Mr. Allen: Yes. I haven't seen that one before.

Chair Kotelchuck: Yes.

Mr. Allen: Anyway, I was starting to try to answer that. Well, first of all, I thought we were going to probably move all these Carborundum things that were not case-specific to the Carborundum Work Group. So, I wasn't really prepared to talk about many of these today.

I mean, we've talked about the case-specific one, which was that classification of that particular claim. And that, I agree, doesn't belong with the Work Group, but the rest of these, I don't think they're case-specific, unless I'm wrong here.

Member Clawson: So, what you're saying, Dave, is that these are kind of overarching for the Carborundum Work Group to evaluate, correct?

Mr. Allen: Yes, essentially. They're in the middle of an evaluation now, and I think even Bob's answers said, if we adopt another method that has already been presented to that Work Group, some of this would be moot.

Member Clawson: Right. Dave, help me out with this one. Because we took, and as a Work Group, we discussed a different methodology that we were going to do on that. And I don't think that these slides represent what the Work Group had agreed on. And I was just wondering if this was going to be covered by that or if this was completely different. Tom Tomes, I think? Is that who it was that we agreed with?

Mr. Allen: Yes, Tom Tomes, and that Work Group is still working.

Member Clawson: Tom Tomes.

Mr. Allen: We're finalizing some White Papers to go

to that Work Group now. They're still working on it, which is why I think it might be kind of a bad idea for us to deal with some of the issues they might be dealing with at the same time.

Chair Kotelchuck: Oh, that's fine, yes.

Member Clawson: Well, Dave, this is an issue that maybe we ought to skip.

Chair Kotelchuck: Oh, I'd be more than open. I'd be more than open. There are so many different issues that are raised under this particular Carborundum case that if the -- I mean, the Working Group, if they are willing and able to take on some of these, and then, refer back to us, I would be delighted.

Member Clawson: Well, I think we would utilize our time a little bit better, where a lot of these, it looks like, are plant-specific instead of an individual.

Chair Kotelchuck: Yes, yes. That's fine.

Member Clawson: So, I think we ought to, then, skip this one and go to the next one.

Sorry, Rose, but --

Chair Kotelchuck: Right. Agreed. Yes, I'm happy about that.

Subcommittee and Rose, if you want to say something, don't hesitate, or other Subcommittee Members. I'm on board with asking the Work Group to look at it.

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

Chair Kotelchuck: Yes. A number of issues. Okay.

Rose, is that acceptable to you? You are prepared, I'm sure, to talk about these. And, Bob?

Mr. Katz: We seem to have lost Rose and Bob.

Chair Kotelchuck: Oh, we did? I'm so sorry.

Member Beach: I wonder if they're having the same problem with their phones.

Chair Kotelchuck: Yes.

(Off the record comments)

Dr. Anigstein: So if I can speak for SC&A in Rose's absence?

Chair Kotelchuck: Please.

Dr. Anigstein: This is Bob Anigstein.

Chair Kotelchuck: Sure.

Dr. Anigstein: I think that that would certainly be a desirable approach to put this off until the Carborundum Work Group meeting.

Mr. Katz: So, Bob, is there anything left that's just case-specific?

Chair Kotelchuck: Within that Carborundum?

Mr. Katz: Bob, did you hear me?

Dr. Anigstein: I'm sorry, I didn't catch that.

Mr. Katz: So is there anything left for this case that's case-specific and not a generic matter for Carborundum?

Ms. Gogliotti: Sorry about that. Now can you hear me?

Chair Kotelchuck: Yes. Ah, Rose, you're back. Good.

(Off the record comments)

Ms. Gogliotti: Yes, we're happy to forward these on to the Carborundum Work Group for any of these that are not case-specific.

Chair Kotelchuck: Oh, okay.

Member Clawson: That being said, Rose, do we have any of them are just case-specific, individual-specific

that you know of?

Ms. Gogliotti: Let me look.

Member Clawson: For me looking at it, I saw these as all more of an area-specific.

Ms. Gogliotti: Just this Finding No. 4 --

Member Clawson: Where?

Ms. Gogliotti: -- where the finding stated that occupational medical doses were assigned prior to AWE operations.

Chair Kotelchuck: Okay. Yes.

Ms. Gogliotti: NIOSH agreed that that was incorrect.

Chair Kotelchuck: Yes. And recommended closure, and that certainly makes sense. NIOSH agrees.

Mr. Siebert: This is Scott.

I think another one is Observation 5.

Chair Kotelchuck: Okay. Before we do it, let's agree.

The Subcommittee, we agree that 472.4 should be closed?

Member Clawson: That's correct.

Chair Kotelchuck: Okay.

Member Clawson: This is Brad.

Chair Kotelchuck: Moving on, let's go back to Observation 4.

Mr. Siebert: Observation 5.

Chair Kotelchuck: Five. Sorry.

Ms. Gogliotti: This one states that NIOSH should provide live spreadsheets. And I think there must have been some kind of miscommunication here because NIOSH said it was the CAB files that they

were talking about, and that's not a live spreadsheet. It's more of a tool.

So, we agree that that's the case and we recommend closure.

Mr. Katz: Rose?

Ms. Gogliotti: Can you hear me? Not?

Chair Kotelchuck: I barely hear you.

Ms. Gogliotti: Okay. Well, at least you can hear me somewhat.

Chair Kotelchuck: Yes, yes.

Ms. Gogliotti: Observation 5, the observation states that NIOSH should provide live spreadsheets to facilitate our review. There must have been some kind of communication error because NIOSH said that the CAB tool was provided, and the CAB tool isn't a live spreadsheet. It's more of a workbook tool.

So, we understand that and we agree with that. So, we can recommend closure.

Chair Kotelchuck: Okay.

Member Clawson: I agree.

Chair Kotelchuck: Good. Alright. Close that Observation 5 and Finding 4. Good.

And we'll then send the rest to the Working Group and ask them to advise us or settle it, actually. If they settle it, then we don't have to see it again.

Mr. Siebert: Wait, well, I'm sorry, Dr. Kotelchuck. I think Observation 6 also could probably be looked at.

Chair Kotelchuck: Okay. Let's see. Observation 6.

Ms. Gogliotti: Okay. This one states that NIOSH should eliminate the inconsistencies in annual intakes listed in the CAB workbook.

Dr. Anigstein: Basically, we just recommend that we have more precise data. They use this -- they changed the formats. They use the ---

(Telephonic interference.)

--- there is no limit evaluated. Otherwise, when you have such formats, by the time you get to three decimal places, it is very hard to do a QA when you don't have the full -- see, NIOSH uses a full precision, but we don't get it.

So, it's just a suggestion that they -- it's not really our place to tell NIOSH how to do this, but we're suggesting that it would make it a lot easier to QA to go in and change the format to use the E format.

Chair Kotelchuck: Alright. That's an observation and a suggestion. We don't really have to pass on it, right?

Member Clawson: I guess, Dave, I'd just like to know Scott's take on this.

Chair Kotelchuck: Okay.

Member Clawson: Is it something --- I know that SC&A is just doing this as an observation, but I just wondered if it's something that you'll kind of look into.

Mr. Siebert: Yes, I have a note to myself to look at the consistency of how specifically that is being done and make sure we're doing it consistently.

Member Clawson: Okay. That sounds good, I just ---

Chair Kotelchuck: Good. Thank you, Brad, for that.

Okay.

Mr. Katz: So, Rose, if you would bundle the findings, the outstanding findings that are appropriate for the Work Group to consider for their general methodology for Carborundum, if you would bundle

those and send them to me, then I'll make sure they get to the Work Group, and when the Work Group meets, they can take these up along with the -- they probably in some degree overlap with other issues they have for the Carborundum Site Profile Review.

Chair Kotelchuck: Yes, yes.

Mr. Katz: Okay, Rose?

Ms. Gogliotti: Not a problem, and I'll make sure to also include some of this discussion just to give them a leg up to what's already happened.

Chair Kotelchuck: And, Rose, could you cc me on that, just so I know what's being sent to the Work Group? Or Ted?

Mr. Katz: Yes. Yes, that's fine.

Chair Kotelchuck: That would be good.

Alright. Well, then, we are ready to move on to GE perhaps?

Ms. Gogliotti: Yes, 473.

Chair Kotelchuck: Okay.

Ms. Gogliotti: Okay. And this is GE and 473.1.

Chair Kotelchuck: Mm-hmm.

Ms. Gogliotti: The finding has to do with requesting the methodology used for deriving onsite ambient dose. And there's been lots of discussions back and forth that have happened on this, but ultimately, we needed -- we had asked NIOSH to revise the template, or the template for this site. And NIOSH agreed. They provided us with the template. We verified that the template is consistent with what we were expecting and does include the necessary references that we can check the values that were put into it. So we recommend closure.

Chair Kotelchuck: Right. Okay.

Mr. Calhoun: Does this go away as a finding, too?

Ms. Gogliotti: I would not say so. We made a change as a result of our review. Generally, that wouldn't be a finding.

Mr. Calhoun: Did the methodology change or was it just clarified?

Ms. Gogliotti: It was clarified because we didn't have enough information to do the review.

Mr. Katz: Okay. That's not a finding then. That's an observation.

Mr. Calhoun: Yes, dose reconstruction would be done the same way. It's not a finding, I don't think.

Mr. Katz: Right.

Chair Kotelchuck: I agree.

Mr. Katz: Right, it's an observation.

Chair Kotelchuck: Yes. Okay. So, we'll move it to an observation and close. Okay.

Unless there's an objection, let's move on.

Ms. Gogliotti: Okay. This one is related to the last one.

Chair Kotelchuck: Mm-hmm.

Ms. Gogliotti: And no response from NIOSH. Oh, we had requested some additional information from NIOSH on 473.2, and NIOSH hasn't responded yet. So we should probably leave this one open.

Mr. Siebert: For 473.2, from the last meeting, the note I have is John Mauro is going to give us an update clarifying the issue because it's not very clear to us what he's actually asking.

Ms. Gogliotti: I did not have that in my notes, but if we agreed to that, we can certainly do that.

Chair Kotelchuck: Yes, and I'm on the BRS and I see it, yes.

Ms. Gogliotti: So that was from September. Our last response was from March. Maybe I'm confused. We'll add some additional clarification, and we can talk about it at the next meeting.

Chair Kotelchuck: Okay. Why don't we do that? So 473.2 will still be in progress.

Mr. Katz: Correct.

Chair Kotelchuck: Good.

Ms. Gogliotti: Okay. The next one is 473.3, same case.

Chair Kotelchuck: Okay.

Ms. Gogliotti: And the finding had to do with purported photon doses not appearing to be properly accounted for. And with this one, I think it comes down to: there are two records that are cited in the report that SC&A cannot locate. They're records from 1964 and 1984 dosimetry. And this particular individual was monitored on and off, but they're very spotty dosimetry records, but they have lifetime records.

And NIOSH claims to have used these two, in addition to one that we did find, to assign the dose. If the results are what they state they are in the report, we're okay with it. We just can't find these results to verify their claim.

Mr. Siebert: Yes, and this is Scott.

Since that was floated last week, we haven't had a chance to look at it yet, but we will before the next meeting.

Ms. Gogliotti: Alright.

Chair Kotelchuck: Okay. And we will resolve that issue that you want this to be that this not be a

finding, that the finding be withdrawn. And we'll discuss that, okay? At that time, at the next meeting.

Ms. Gogliotti: Okay. The next one is a Metals and Controls Corp case, I mean Tab 474, Observation 1.

NIOSH should take note of the abnormally high photon doses and beta doses for the three workers. They were omitted from the dose reconstruction, and we completely agree that they should have been omitted. NIOSH agrees that they were omitted and should have been, and they explain why they omitted these results. And we agree. So we recommend closure.

Chair Kotelchuck: Okay. Let's close that.

Folks from the Committee, anybody have any comments, any concern? Or let's just say, why don't I say it's closed unless I hear objection?

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

Chair Kotelchuck: Okay. Let's go on then. Good.

Ms. Gogliotti: Okay. Then, Case Observation 2. According to the CATI, the EE works in this specific location, even after AWE operations. However, doses assigned to certain years include dosimetry collected in other buildings.

And NIOSH responded, essentially saying that the EE did work in that location, but that he performed multiple different tasks, and they don't feel that a one-building location adequately captured the EE's exposure. And we accept their response and recommend closure.

Chair Kotelchuck: Okay. Again, let's close, unless I hear objection.

Member Clawson: No objection.

Chair Kotelchuck: Okay.

Ms. Gogliotti: Okay. This next one, Observation 3, I'm actually going to recommend that we wait on the Subcommittee. There's currently an SEC petition being evaluated in Subcommittee.

Chair Kotelchuck: That's right.

Ms. Gogliotti: And this one is an active observation -- or finding -- that they're discussing.

Chair Kotelchuck: This is -- I'm at Observation 3. No, open. The Metals and Controls, 474, Observation 3. Okay. Yes.

And the Subcommittee, there will be a report at the next Board meeting, and I'm not quite sure if we're having any meetings before. I don't think so.

Mr. Katz: No, we're not, Dave.

Chair Kotelchuck: Okay. I didn't think so. Good. Okay. Observation 3, hold; in a sense, in progress, right?

Ms. Gogliotti: Well, it becomes in progress as soon we discuss it. So these haven't been discussed it yet. So they are still open. But now we have discussed it, so it will change to in progress.

Chair Kotelchuck: Okay. Alright. Let's continue.

Ms. Gogliotti: Observation 4 from the same case. NIOSH should explain why a calculation of radon-222 concentration is included in the dose reconstruction for this specific type of cancer. If there is a reason to retain the calculation, it should be corrected.

And NIOSH responded that professionally standardized language for the radium section of the report, it was listed, but it shows that the dose was zero, I believe -- yes, in the CAB report. And so we accept that response.

Chair Kotelchuck: Okay. So, we can close that, again, pending objection.

Go ahead.

Ms. Gogliotti: Okay. Same case, Finding No. 1. Reported overtime was not included in the dose reconstruction. And I believe we came -- yes, this one and, actually, Findings 2 and 3 also have to do with more Subcommittee issues.

Chair Kotelchuck: Yes.

Ms. Gogliotti: NIOSH recommended that we move these to those discussions, and I agree.

Chair Kotelchuck: Yes. Okay.

Mr. Katz: I'm sorry, I didn't understand that, Rose. Are related to Subcommittee questions? What did you say?

Ms. Gogliotti: So, these have to do with the Metals and Controls Corp SEC--

Mr. Katz: Oh, okay.

Ms. Gogliotti: -- questions.

Mr. Katz: Yes. Okay, not Subcommittee, but SEC matters.

Member Beach: The Work Group matters.

Chair Kotelchuck: The Work Group. The Work Group is considering the SEC. Okay.

Dr. Anigstein: Actually -- Bob Anigstein -- I think the SEC is for the residual period.

Member Clawson: Hey, Bob, you're cutting out real bad. It's like your speaker phone is kicking in and out or something. I can't understand you. I'm sorry.

Dr. Anigstein: Hi. Okay. Is this better?

Member Clawson: Yes, much better.

Dr. Anigstein: Okay. Yes. Right.

This has to do with the operational period, exposure to the radium that was handled during the AWE period. And our point was that it is not fair to the workers who did overtime to have the overtime disregarded.

We're on Finding 1, am I--

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

But, if an SEC is granted, then this will not be an issue.

Dr. Anigstein: No, the SEC is for the residual period. This is a case of all of the --

Chair Kotelchuck: Oh, okay.

Dr. Anigstein: All three of the Metals and Controls cases are skin.

Ms. Gogliotti: Bob, we cannot say the type of cancer.

Chair Kotelchuck: Right. Right.

Dr. Anigstein: Okay. But we have to because it's a non-covered cancer.

Chair Kotelchuck: Okay. You have to say it. Okay.

Dr. Anigstein: So the organ is the skin.

So, the SEC is irrelevant here. And the overtime issue is that it's not fair to disregard the overtime. Regardless of how well the exposures are characterized, they should be adjusted for overtime. And the only time they wouldn't be, if they were based on film badge readings, then, of course, the overtime is already reflected in there, but that's not the case here. So we stand behind the fact that this should be included. All of the previous comments about the case, this case, also apply to the AWE period and the exposure to radium, I mean to skin, which is not the SEC.

Ms. Lin: Bob, you can use the term non-presumptive

cancer, please.

Dr. Anigstein: Excuse me?

Ms. Lin: Use the term non-presumptive cancer. Thank you.

Chair Kotelchuck: Right.

Dr. Anigstein: I'm sorry, I'm just not getting you.

Mr. Katz: Bob, this is Ted.

We don't speak to specific cancers. So, if you need --

Dr. Anigstein: Okay. I know, but -- I hear you. I hear you, but, okay, so it's a non--

Mr. Katz: Bob, let's--

Dr. Anigstein: Okay. I will amend the record and I'll simply say it's a non-SEC cancer.

Mr. Katz: Exactly. Exactly.

Dr. Anigstein: Okay. Very good. I apologize.

Chair Kotelchuck: But let's go back to the substantive issue that the overtime is not recorded. The exposure due to the overtime is not.

Dr. Anigstein: No, I think the doses should be proportional to the hours worked.

Chair Kotelchuck: Mm-hmm, mm-hmm.

Dr. Anigstein: Eight hours a week is already significant.

Chair Kotelchuck: And, Scott, what were you saying?

Mr. Siebert: Once again, Metals and Controls, since it's in the SEC, I really can't speak to this. If DCAS and NIOSH would like to, that's obviously their choice, but I really can't.

Dr. Anigstein: Excuse me?

Mr. Siebert: I'm not in a position to speak on this issue. So I'll leave it up to NIOSH, if they so desire, to discuss that.

Chair Kotelchuck: Okay. Bob is suggesting that this issue is not an SEC issue, that it's an issue during the working period, not the residual.

Dr. Anigstein: This is during the AWE period, but it's a non-SEC cancer. So, therefore, they need to do a dose reconstruction. But it's not affected by the Subcommittee--

Member Beach: But it will come into the Work Group's discussion, but probably not until we get to the Site Profile issue, correct?

Dr. Anigstein: Well, to my understanding, the Work Group, which you've been a part of, is addressing the SEC for the residual period. And this is not an issue of the residual period. I mean, for two reasons. It's not the residual period and it's not an SEC cancer. So, in either case--

Chair Kotelchuck: I'm not exactly sure, Scott, why you can't address this, but is there -- nobody who is responsible for addressing it who is available? Is that what you're saying?

Mr. Siebert: Well, yes, I'm not the expert on this, so I can't address it. However, Mutty is our AWE expert on our side. If he'd like to weigh-in on this, that would be great.

Chair Kotelchuck: Mutty? Mutty?

Mr. Sharfi: This is Mutty Sharfi. Can you hear me?

Chair Kotelchuck: Yes, we can. Thank you.

Mr. Sharfi: The big difference when it comes to in this particular situation, when you assess the exposure based on radiation fields, which is dose per unit of time, then we tend to take adjustments for overtime. So in this case the external dose is done with really kind of a coworker assessment of external

dosimetry, but no different than we applied to external coworker badge data. We don't apply overtime, but we're basing this kind of exposure based on coworker dosimetry data. Does that make sense? It's no different than if we base the internal based on bioassay data, we don't make adjustments to intake for overtime because those are kind of accounted for in the dosimetry. But, when they're using rad fields and those are time-based assessments, or air samples are time-based assessments, then we make adjustments to overtime.

Chair Kotelchuck: Okay. I'm not quite sure I follow, but others may. So, I'll just hang off for a moment.

Mr. Sharfi: The dosimetry is covering during the worker's entire period. It's not based on the quarterly badges or monthly. I think in this case for this site they're quarterly badges. So they're not based on a set hourly dose rate. They're based on a period dose rate.

Chair Kotelchuck: Okay.

Mr. Sharfi: Which is different than if you were taking rads, so many mR per hour, and then, you need to account for the amount of time that the person is in the field, which is different than taking the badge for the entire period.

Chair Kotelchuck: Right. Well, Bob was suggesting that some people, that there are people who are not being badged, right, who are not badged?

Mr. Sharfi: Really, dose is being assigned based on a coworker assessment. So it's using other people's dosimetry to calculate an average dose per unit.

Chair Kotelchuck: Ah, aha.

Mr. Sharfi: And we're applying that to the unmonitored worker period, no different than any other coworker study.

Chair Kotelchuck: Right.

Dr. Anigstein: In this instance, the exposure is based on a model. We know that this person was involved in handling radium, and we have a model exposure from the radium. So there is no bioassay data. There is no film data. The other workers had film badges, but not the workers handling radium. They were not badged. The exposure is based on 2,000 hours of exposure a year. If a person has overtime, they would work more than 2,000 a year.

Mr. Sharfi: Okay. This is the radium exposure scenario? I'm sorry. Okay. So in the radium exposure scenario, we have to look at -- if you remember, the way we assessed it is we assumed a 2,000-hour exposure, but when you look at the workload, it's really almost impossible for someone to work that radium job 2,000 hours, given the production rate. So even if someone is working overtime, it's unlikely that you're working your time plus overtime all with the radium work.

Dr. Anigstein: Well, why make that distinction? Why is it that a 40-hour-a-week worker was exposed 40 hours to radium and a 48-hour worker was not exposed for 48 hours? It's inconsistent.

Mr. Sharfi: Well, if you had that much work, then you would never have gotten the full time period worth of exposure. It's just the production rate doesn't match. So we're assuming the entire source term during the entire 2,000 hours, not a limited source term over an elongated period. So, you're already including the entire source term during the entire process.

Dr. Anigstein: I agree that it's conservative, and I've done some further analyses, so that we could do it -- that is, a lower dose rate would be appropriate actually.

And we've got another issue which is further on, just jumping ahead, where the skin dose is vastly underestimated because of the neglect of the

electrons, the beta dose and the -- well, mostly the beta dose. So, we're suggesting a whole different model. But, at the same time, that does not negate accounting for the overtime. Why should a person who worked more hours not get more exposure? It's just common sense.

Mr. Sharfi: There is, we've already built the conservatism into the model of the dose rate. Then we thought there was no need to add on top of it an additional conservatism for overtime when the model is already overestimating.

Chair Kotelchuck: Right. So you're saying that nobody works 40 hours a week with the radium?

Mr. Sharfi: Not with the source term that we assumed, handling it the exact --- the amount of time per --

Chair Kotelchuck: Right.

Dr. Anigstein: But whatever is assigned should be proportional. The person who works more hours is more exposed. Whatever the correct exposure rate, the person working more hours would have a higher exposure.

Mr. Sharfi: I would say, if you did a better estimate of the exposure rate, and then you adjust it for overtime, you would still end up with a lower dose than what we're assigning.

Dr. Anigstein: Well, this is not about maximizing the dose. This is about being scientifically accurate, or at least using the best estimate that we can make. I guess your argument is, since you already have an overestimate -- [This is how] I interpreted your argument.

Chair Kotelchuck: No, you're right. He's saying that he's doing an overestimate already, and that 40 hours a week is an overestimate. Now I'm not sure where that data comes from, and I'll just assume that that is a correct statement. Then, it's not necessary

to put in --

Mr. Sharfi: That is the argument.

Member Lockey: Jim Lockey. Let me ask a question.

So you're assuming that somebody who was exposed 30 hours, they're going to be getting a 40-hour estimate, is that correct?

Mr. Sharfi: Correct.

Member Lockey: Okay. So that makes logical sense to me.

Chair Kotelchuck: Yes.

Member Lockey: You're adjusting your side. Let's move on.

Chair Kotelchuck: Alright. That's good. What do others think? I'm open to moving on.

And, NIOSH requests this finding be withdrawn or reduced to an observation. It sounds like we should reduce this to an observation and close it.

Member Lockey: I concur.

Chair Kotelchuck: Okay. Others? Objection?

(No response.)

Okay. Observation and closed. Good.

Let's go on.

Ms. Gogliotti: Okay. The next one, 474.2.

Dr. Anigstein: Should I go on to Finding 2?

Ms. Gogliotti: Sure.

Chair Kotelchuck: Mm-hmm.

Dr. Anigstein: In a nutshell --

(Telephonic interference.)

Member Beach: Bob, I think you're breaking up again if you're still talking.

Dr. Anigstein: Alright. I'll try this again.

This is that the scientific basis for the estimate of the radium on the bead is inaccurate. Because we went over -- I won't go into the details of the original report; it's in our DR report. But there were some errors in the nuclear physics involved. And there was also, they had a single switch that was taken from the ORISE collection, which is from an earlier time but not necessarily representative of this. And we have found other reports of higher activity on similar switches, significantly higher, a published paper where they found a surplus source, which is measurements that were made in California. And also--

Member Beach: Bob, can I ask you to hold up just for a second? This is Josie.

Dr. Anigstein: Excuse me?

Member Beach: Can I ask you to hold up? This is Josie.

Is this something that the Work Group should take up?

Dr. Anigstein: Oh, well, again, the Work Group is not involved with this period of time. I mean, I suppose they could be asked to.

(Simultaneous speaking.)

Member Beach: --- for this period.

Dr. Anigstein: I suppose they could be asked to. That's not my problem. That's not my --

Chair Kotelchuck: Well, no, you're right, and we are looking at the residual period. We are looking at that SEC claim.

Dr. Anigstein: Right.

Ms. Gogliotti: But these do come up into the SEC period.

Member Beach: They do, yes.

Dr. Anigstein: I agree. I agree that it's a very site-specific issue, and if the Board Members --

Chair Kotelchuck: Yes.

Dr. Anigstein: I certainly would not-- just speaking perhaps unofficially, my personal opinion as a participant would be, yes, it would make -- the Work Group would probably focus better on this than the DR Subcommittee.

Chair Kotelchuck: I think so. Yes, I agree with that.

Also, things that can be, since we're in the middle of active work around this, to be conservative, I would leave it to the Work Group.

Dr. Anigstein: Okay. In that case, that would take care of Finding 3.

Chair Kotelchuck: Sure.

Dr. Anigstein: The same thing would be Finding 3, would go in that same basket.

Chair Kotelchuck: Right.

Dr. Anigstein: And Finding 4 is a generic one. Well, it's not generic, but it's a case-specific. It's not a site-specific; it's a case-specific. And that is, this is exposure -- they use an attenuation factor -- and this is exposure to a region of the body that in the case of this particular worker would not likely, would not necessarily be covered with clothing. I'm trying to be general. And consequently, given the identity of the worker and given the location, it would not necessarily be covered with clothing, and therefore, there should not be an attenuation factor for that particular dose assessment. I hope I'm being ---

Chair Kotelchuck: You're right, it's difficult to

understand. It's difficult to speak about it.

But is there any evidence there about clothing one way or the other?

Dr. Anigstein: No. Just knowing clothing styles, if the Work Group --- if the Board Members have, can see the case, can see MCC 744.4, if you look at the last paragraph --

Chair Kotelchuck: Mm-hmm. Okay. Might have been uncovered during the -- my thought is that people that work where both hands are---

Member Beach: Not necessarily, depending on the time period.

Chair Kotelchuck: Yes, yes.

Mr. Siebert: This is Scott.

We looked at this really closely as well. And it is a rather unusual situation based on the timeframe, the changing of work of the individual. And we agree that it's not unreasonable to make the assumption that attenuation -- that this location was uncovered, we don't have a problem with that. And we actually ran the PoC to see if it had any impact, and it does not.

The follow-up question that came out of that was not necessarily this specific claim, but was it a wider issue for other claims, for skin attenuation that would fall into this kind of category? And we gave the additional response.

I think if you scroll down a little bit, we have a response in April on this, yes, that we looked at all the dose reconstructions done by this dose reconstructor. We looked at a whole bunch of them. We looked, basically, at a 10-percent sample of the 533 they've done with shallow doses, and walked through every single one. And we did not run into this same issue with them not applying attenuation.

Chair Kotelchuck: Aha.

Mr. Siebert: I'm sorry, applying attenuation when attenuation is not applicable, with this thought process in mind. So, we're very comfortable this is not a systematic or even a dose reconstructor issue. It was just a decision that DR made on this specific claim that I can see it's reasonable to make the difference with this.

Chair Kotelchuck: You're right. And therefore, the question would be, what is more claimant-friendly?

Mr. Siebert: Right. Which is assuming there's no attenuation.

Chair Kotelchuck: Yes.

Mr. Siebert: So we agree that it's not an unreasonable assumption to make. So we agree with the finding.

Chair Kotelchuck: Okay. Then we can close it.

Mr. Katz: Correct. Correct.

Chair Kotelchuck: Okay.

Mr. Katz: That's sweet, very sweet.

Chair Kotelchuck: Wonderful. And, by the way, Scott, that last paragraph, you did what you needed to do to check how common this issue is, and essentially resolved that it was one person, and you're claimant-friendly, and that's it.

Okay. Do we want to go to 475, Observation 1?

Dr. Anigstein: It's identical with 474, Observation 1.

Chair Kotelchuck: Mm-hmm. I'm generally negative about doing too much for Metals and Controls. Maybe it's because I'm in the Work Group, but I keep feeling like, you know, well, we're going to get to all these things, although not necessarily.

What's the case again, site-specific or case-specific, 475?

Ms. Gogliotti: This first one is identical to Observation 1 on the previous case.

Chair Kotelchuck: Okay.

Dr. Anigstein: It's a very similar case.

Chair Kotelchuck: Okay.

Dr. Anigstein: Except --- so if I can skip through, I can point out the differences.

Chair Kotelchuck: Okay.

Dr. Anigstein: So the Observation 1 is identical to 474.1, 474, Observation 1.

Chair Kotelchuck: Mm-hmm.

Dr. Anigstein: Observation 2 is identical to 474, Observation 3 --

Chair Kotelchuck: Mm-hmm.

Dr. Anigstein: -- about the resuspension factor.

Observation 3 is the same as 474, Observation 4, about radon. So that's been resolved.

However, a new issue comes up with 475.1, Finding 1. And this is a philosophical difference that we have. And that is, NIOSH has information on external exposure, external exposures other than the radium during the AWE period. So even though there was an SEC granted, this is, again, a non-SEC cancer.

It should be reasonable to use whatever information they have. The basis of the SEC was that NIOSH could not reproduce exposure, could not evaluate exposure to thorium. However, since there is external exposure and external dosimetry data during the last two years of the AWE period, we feel it would be reasonable to assign these external doses to other times of the AWE period.

And this particular worker -- the previous one was employed during the time of the radium use radium

was only used for about a couple of years. But this worker came earlier. He worked in the radium period, but he also had four years of employment prior to the radium period, and he was assigned zero external dose during that time.

And we feel -- and I'm echoing John Mauro, who isn't on the phone now-- that there should be an attempt made to use whatever data is available to estimate his external dose during 1960 to 1964.

Chair Kotelchuck: Scott?

Mr. Siebert: Well, if you look at our followup, basically, we're saying there's additional information that's coming out of the SEC. So we suggest that we just forward it to the Metals and Controls Work Group to deal with, along with everything else. And if they determine that there's enough information and a coworker model should be made, then obviously we'll move forward with that.

Dr. Anigstein: Alright.

Chair Kotelchuck: Okay. Good. That sounds like a resolution, unless I hear objection.

(No audible response.)

Good.

Mr. Katz: So, that's not a resolution, but a punt to the other Work Group.

Chair Kotelchuck: That's right. That's right for this meeting, right, it gives this to the Work Group.

Dr. Anigstein: Okay. Finding 2, 475.2, is the same as 474.1, the overtime measure.

Chair Kotelchuck: Wait a minute. 475.2 is the overtime issue. Okay. So, it makes it an observation and close 475.2.

Dr. Anigstein: And 475.3 is the nature of the radium beads. So, that should be, that would be Finding --

one second.

Chair Kotelchuck: Sure.

Dr. Anigstein: That would also be one of the findings. That was previously discussed, and the recommendation was this goes to the M&C Work Group.

Member Beach: I agree with that.

Chair Kotelchuck: Mm-hmm.

Dr. Anigstein: Okay.

Chair Kotelchuck: Good.

Dr. Anigstein: And the same way with 475.4, where you need to include the electron dose from the radium beads. That's also under there.

Chair Kotelchuck: Okay.

Dr. Anigstein: And then, the final one -- and that's the end of 475. That's the end of 475.

Chair Kotelchuck: Right. 475.4 is the final one.

Mr. Siebert: Well, this is Scott.

We kind of skipped over the observations relatively quickly, and I think we probably could close some, consistent with the previous case.

Chair Kotelchuck: Okay. That would be good, and we should be closing soon. We're all, I think, getting a little tired. Oh, I do not speak for all. I guess I would have to say we're slowing down a bit.

Go ahead.

Mr. Siebert: Okay. Well, I mean, I can say that Observation 1 for 475 is the same as Observation 1 for 474. It was the abnormal spikes, and we're going to update the methodology to reflect that when all the Working Group and SEC work is done.

Chair Kotelchuck: Right.

Mr. Siebert: We had closed that for the previous one.

Chair Kotelchuck: Right.

Ms. Gogliotti: I think they decided to take the same action when they were identical.

Chair Kotelchuck: Yes.

Mr. Siebert: Okay. I didn't hear that specifically stated. And so I don't have it specifically in my notes.

Chair Kotelchuck: So, actually, 475.1 goes to the Working Group. The .2 is changed to observation and closed. .3 goes to the Working Group. .4 goes to the Working Group. That's what I have in my notes.

Is that correct, Rose?

Ms. Gogliotti: Yes, I believe so.

Chair Kotelchuck: Yes. So, we actually have resolved -- and I was asking whether 475.4 is the final finding.

Mr. Siebert: This is still my point. There's observations on 475 that are identical to 474 that we closed on 474, and I want to make sure we're all on the same piece of music.

Chair Kotelchuck: Oh, I see. I'm sorry. Yes. Okay.

Mr. Siebert: That's okay.

Chair Kotelchuck: I told you I'm slowing down, mentally.

Here we go. Okay. Let's do that. We can do that, and then we'll finish up. So, we're going to 475 observations.

Hold on a second. I'm scrolling, and somebody else is scrolling, too. I've been off of Skype for hours.

Ms. Gogliotti: So, 475, Observation 1 --

Chair Kotelchuck: Yes.

Ms. Gogliotti: -- is closed, which is the same as 474, Observation 1.

Chair Kotelchuck: Mm-hmm.

Ms. Gogliotti: Observation 2, we are punting to the SEC Work Group.

Chair Kotelchuck: Right. Okay.

Ms. Gogliotti: Which is the same as the previous observation.

Chair Kotelchuck: Right.

Ms. Gogliotti: Observation 3, I believe we accepted this one. So, it would be closed.

Chair Kotelchuck: Okay.

Ms. Gogliotti: And those were the observations for this case.

Chair Kotelchuck: Okay. Alright. Very good. There was an Observation 4 on 474, which we closed.

Mr. Siebert: Yes, there was an additional observation on the earlier one that didn't apply to this one.

Chair Kotelchuck: Right.

Mr. Siebert: That's why there's one fewer observation.

Chair Kotelchuck: Very good. Okay.

Folks, I think we are finishing this up.

Yes, go ahead, Rose. Yes?

Member Beach: Dave, we do have Observation 476 --

Chair Kotelchuck: Okay.

Member Beach: -- and 476, Observation 1, and then,

there's a finding.

Dr. Anigstein: 476, Observation 1, is, again, resolved under 474.

Member Beach: Yes, I just didn't want to miss that.

Chair Kotelchuck: No, I was thinking of closing shop for the afternoon.

Member Beach: Yes, I just thought we should finish this up before you did.

Chair Kotelchuck: Okay. Well, if those are a few things we can do right now, I'm more than open to that. So you're talking about 476, Observation 1?

Ms. Gogliotti: Yes.

Chair Kotelchuck: Alright.

Ms. Gogliotti: Now this is identical to 474 and 475, Observation 1.

Chair Kotelchuck: Okay. 476, Observation 1. Let me just -- 476. One second. Observation 1 to close. Okay. Fine. Agreed.

And then, next is 476.1.

Ms. Gogliotti: 476.1, this is, again, the same overtime issue.

Chair Kotelchuck: Yes.

Dr. Anigstein: The same as 474.1.

Chair Kotelchuck: Mm-hmm.

Ms. Gogliotti: So, presumably, we'll take the same action,

Chair Kotelchuck: Okay. Which was?

Mr. Katz: Observation--

Chair Kotelchuck: I'm just looking at my notes for a second. .1, right, yes. Yes, observation closed.

Okay. Right.

Dr. Anigstein: And this one, the 476.1 deals with residual period. So that might very well be appropriate for the SEC Work Group.

Chair Kotelchuck: Yes. Yes, indeed, it would be.

Member Beach: I agree. I agree.

Chair Kotelchuck: Good. And that's it. Alright.

Member Beach: Well, the last one in this set is the Texas City, 442.

Chair Kotelchuck: Texas City Chemicals.

Member Beach: That's the last one in this set, and I was just going to ask Rose if they did anything with this. We left it in March that SC&A was going to further investigate.

Ms. Gogliotti: I would still like to do a little bit more investigation into this issue.

Member Beach: Okay. Yes, I didn't think you saw anything.

Chair Kotelchuck: Alright.

Member Clawson: Quit cracking the whip on us, Josie.

(Laughter.)

Member Beach: I'm trying to get ahead of Dave's closing us out.

(Laughter.)

Administrative Matters

Chair Kotelchuck: Yes. Well, I'm measuring by previous meetings. But that's fine. What I found in other meetings is sometimes we're scheduled to go to 4:30, and I find that, in my judgment, the quality of discussion and the rapidity of thinking declines

badly in the last half an hour or so. And so I have felt like we'll get more quality time sometimes by closing a few minutes early.

Mr. Katz: That's fine, Dave.

Chair Kotelchuck: But I am more than open. I am more than open to being pushed, and happy some of you young folks have a lot of pep and energy, and we want to make the best use out of it.

Anyhow, we are now, I think, ready to finish up for the day and schedule another meeting.

Ms. Gogliotti: Dave?

Chair Kotelchuck: Yes?

Ms. Gogliotti: If I may? We are basically caught up on this. There's just a handful of findings that we couldn't resolve today, but that's everything that the Subcommittee has to do until we finish the one-on-one calls that have not happened yet.

Chair Kotelchuck: Okay. Wow. I have never lived through this, that we've caught up. I feel like I've been running to catch up for years.

Ms. Gogliotti: We have been.

Chair Kotelchuck: I am so happy to have made it.

Member Beach: I was going to say, Dave, it must be time to do another report.

Chair Kotelchuck: Oh, yes, sure, that's right. You can raise it at the Board meeting.

(Laughter.)

It is.

So, what would be an appropriate time that you will have done more work to be ready to have a full meeting? And it may just be quite a few months.

Ms. Gogliotti: Well, it's going to take some time.

Usually, it takes three to four months to complete all of our one-on-one calls.

Chair Kotelchuck: Okay.

Ms. Gogliotti: I did forward the list of cases to Ted.

Ted, are you going to assign us, or Board Members, to one-on-one cases?

Mr. Katz: As a matter of fact, I'm going to do that today. I've already done the work for that. I just haven't sent it out yet.

Ms. Gogliotti: Okay. I just wanted to confirm because I know that, with Dr. Melius' passing, things have changed a bit.

Chair Kotelchuck: Right.

Mr. Katz: Yes. So that's going to get done. That's going to go out to SC&A today, and then SC&A will get -- Dave, I don't think you've even done this before in your Board time, but maybe you have. But SC&A will get in touch with almost all the teams, the two-Member Board teams.

Chair Kotelchuck: Oh, yes.

Mr. Katz: And they'll schedule the meetings with them to discuss these 30 cases. And once you get through all of those, if there are cases to revise, they will revise them and get those back to everybody.

Chair Kotelchuck: Right.

Mr. Katz: And then, they'll move on to the Subcommittee.

Chair Kotelchuck: Very good. Very good. Yes, indeed, I have experienced that before a few years ago.

Mr. Katz: Okay. Yes.

Ms. Gogliotti: That will take three to four months, and then the cases need to go to NIOSH for

responses.

Chair Kotelchuck: Right.

Ms. Gogliotti: So, we might be six months out for the next meeting.

Chair Kotelchuck: That's okay. What I think we should do, then, is we're having the August Board meeting. We'll have another Board meeting, I assume, in March or April?

Mr. Katz: No, the next Board meeting after August, face-to-face, is in December.

Chair Kotelchuck: Oh, okay. Well, why don't we, as we gather in December, all of the Board Members will be either on the phone or there, and we'll set a date for a meeting. Does that make sense?

Ms. Gogliotti: That might be too long because we have three months' lead time.

Chair Kotelchuck: Okay.

Mr. Katz: So, Dave, I will, by email, arrange scheduling once SC&A has a good idea of when they're going to get through the, what she's calling the one-on-ones.

Chair Kotelchuck: Right.

Mr. Katz: So then we can project out a couple of months for NIOSH to respond to the case reviews, to get ready to respond, and then set a date. We can just do that by email.

Chair Kotelchuck: Very good. I generally have found that trying to schedule by email was a lot harder than scheduling when the people are all together. But, if you're open to doing that, I'm certainly open. And thank you for doing that.

Mr. Katz: Yes.

Adjourn

Chair Kotelchuck: Okay. Great.

Alright. Well, folks, you will have a well-deserved rest because we have been just setting meetings, meetings, meetings, as the older Subcommittee Members know. So, very good. We'll put our attention to other matters for our Advisory Board in that period.

Okay. Well, thank you all. Have a happy rest of the summer until August 22nd-23rd. Or is it the 23rd-24th? It's in my calendar.

Mr. Katz: Yes, 22nd and 23rd. Thank you.

Chair Kotelchuck: It's the 22nd and 23rd. Good. We look forward to it, and have a good couple of weeks now.

Mr. Katz: Yes, thanks, everybody.

Chair Kotelchuck: Thank you. We're moving right along. Okay.

Bye, everybody. Bye-bye. Thank you.

(Whereupon, the above-entitled matter went off the record at 4:09 p.m.)