U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

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SUBCOMMITTEE ON DOSE RECONSTRUCTION REVIEW

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TUESDAY
NOVEMBER 22, 2016

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

PRESENT:

DAVID KOTELCHUCK, Chair
JOSIE BEACH, Member
BRADLEY P. CLAWSON, Member
WANDA I. MUNN, Member
JOHN W. POSTON, SR., Member
DAVID B. RICHARDSON, Member

ALSO PRESENT:

TED KATZ, Designated Federal Official
NANCY ADAMS, NIOSH Contractor
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
BETH ROLFES, DCAS
SCOTT SIEBERT, ORAU Team
MATT SMITH, ORAU Team
JOHN STIVER, SC&A

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(10:31 a.m.)

Welcome and Roll Call

MR. KATZ: Welcome, everyone. This is the Advisory Board on Radiation and Worker Health Dose Reconstruction Review Subcommittee.

(Roll call.)

MR. KATZ: Alright, then, so, let me just note for everybody to mute your phones except when you are speaking.

Dr. Richardson will be with us at least until -- will be with us until about 12:30. Dave, then we have the conflict.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: It's your meeting.

CHAIR KOTELCHUCK: Okay. I am still trying to get on in my CDC computer. I don't have -- I seem to be having trouble finding Zaida's invitation, which I had on my regular computer. However, let's -- we can begin with me on audio. I certainly have had a chance to look over the materials today.

So, before we begin, just for everybody, a couple of just administrative things. Ever since I got the note from Dr. Melius about our full name, the Dose Reconstruction Review Subcommittee, I thought it was reason reasonable and proper to use our full name when we abbreviate as DRRSC and I started using it. When I took over as Chairperson, I just simply used DRSC because that is what we have always used. But since I know the correct name and I always did, I guess, I thought it was a reasonable thing to start using it. And I'm going to start using that in notes. And when Zaida sent out information about the meeting, she called it DRRSC.

So, are folks on the Subcommittee okay with using that? Is there anybody who -- is there any problem with that?

MEMBER MUNN: No, but we can debate it for a while if you like.

CHAIR KOTELCHUCK: Pardon? Okay. Alright.

MEMBER BEACH: No objection.

CHAIR KOTELCHUCK: Okay, so I would like to do that. And that will be --

The other thing, and this I will speak to Ted about, and while it is not, strictly speaking, a Subcommittee issue, I am always bothered on our transcripts where we use the word Chairman for all people who chair Committees and Subcommittees. And I would like to change it to Chairperson. That will involve a larger change and in fact something I think we need to mention, where we go to the Board or I will speak with Ted further about it.

MR. KATZ: Yes, I don't think that is really a Board issue, Dave.

CHAIR KOTELCHUCK: Yes.

MR. KATZ: I mean we can also just use the term "Chair."

CHAIR KOTELCHUCK: We can. I don't prefer "Chair" because chair, to me, is a fixed object made of wood or metal or plastic.

MR. KATZ: I mean it is in pretty common parlance.

CHAIR KOTELCHUCK: Well, okay. We can talk about it some other time.

MR. KATZ: It doesn't matter. I mean that is something to discuss with the transcription service. Because what people say out of their mouth is any number of these versions.

CHAIR KOTELCHUCK: True. True. Let's talk about it further, you and I, and that is just a pet thing of mine. Anyway, I just wanted to mention the DRRSC.

MEMBER MUNN: David, I hate to say this but that is a pet thing of mine, also, from an opposite view.

CHAIR KOTELCHUCK: Interesting. Well, let's talk further about it, then, and I will appreciate your input. Let's talk about that off of Committee time. And I will make sure that you are included in our discussion, my discussion with Ted about it. Let's think about it.

Anyway, let's start with our agenda. So, the first item is the Case Reviews Issue Resolution for Sets 14 to 18. And while I am still

trying to join Live Meeting on either of my computers --

MS. ADAMS: Dave, this is Nancy Adams. I sent you a link in your email to CDC that might help.

CHAIR KOTELCHUCK: Okay, good. Good, and I will look at that.

Meanwhile, Rose, are you on the line?

MS. GOGLIOTTI: Yes, I am on the line.

CHAIR KOTELCHUCK: Okay, so why don't we start with the -- I don't know if you want to start with the first one, the Paducah GDP.

MS. GOGLIOTTI: Oh, yes, absolutely.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: Ted, before we get going, though, do we need to do a roll call for SC&A and NIOSH for the record?

CHAIR KOTELCHUCK: Yes.

MR. KATZ: Thank you, Rose. We stopped in the middle of the roll call. That's my fault. But let's go on.

(Roll call.)

CHAIR KOTELCHUCK: Okay, Rose.

Case Reviews Issue Resolution for Sets 14-18 (Paducah GDP [Case 355.2], SRS [356.6], RFP [419.2-4], INL [383.4], NTS [348.8 & 387.1-8])

MS. GOGLIOTTI: Okay, we are going to start with we have one more in the Oak Ridge matrix and this is actually a Paducah case. And this is by name. This is --

CHAIR KOTELCHUCK: Could you speak just a little louder, Rose?

MS. GOGLIOTTI: Yes, sorry about that. This is Finding 355.2 and it is a Paducah case. And we have had a lot of back and forth with this particular case. The finding states that NIOSH used incorrect dose correction factor for the years 1980 through 1982 for missed photon doses. And basically as a result of this, we determined or NIOSH determined that the text in the TBD doesn't accurately reflect what they thought.

So, NIOSH is modifying their

recommendations here in the TBD and they have also offered does reconstruction guidance for Paducah. When they update the TBD, they will include the guidance there.

So, SC&A recommends closing this issue.

MR. STIVER: Rose, this is John. Could you speak up just a little bit? I am having a real hard time hearing you.

CHAIR KOTELCHUCK: Same.

MS. GOGLIOTTI: Sorry about that. I have got my phone turned up all the way. I am just soft-spoken, I guess.

MR. SIEBERT: This is Scott. Just to let you know, we have already made that change and it is in the process of going over and it should be signed off relatively soon. So, it is pretty much a done deal on our side.

MR. KATZ: Good.

MS. GOGLIOTTI: Okay. So, if there are no objections, I would recommend closing that finding.

MEMBER MUNN: Excellent.

CHAIR KOTELCHUCK: I am still having trouble -- Brad, are you still having trouble hearing Rose?

MR. KATZ: It's very clear and loud on my phone.

MEMBER BEACH: Yes, it's good on my phone.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: Okay, so that wraps up our Oak Ridge Matrix. And now we have one straggler in the SRS, Hanford. And that is Finding 356.6.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: Let me just pull it up here. And here it was in the findings, it states that there was an inconsistent assignment of unmonitored environmental tritium dose. And we had some back and forth, historically, that is documented here in the DRS when this should have been applied. There was lots of back and forth but mostly NIOSH responded that essentially SC&A and NIOSH are interpreting the guidance for

unmonitored workers --

MR. KATZ: Hold on, as we have a lot of static on the line. Can everyone but Rose mute your phones, please? Thanks.

Okay, go ahead, Rose.

MS. GOGLIOTTI: Okay, here you will see we recorded from the TBD exactly the guidance on page 85 of the TBD of when coworker dose should be assigned.

Here, SC&A essentially believes that coworker dose should have been assigned but NIOSH argued that if the EE was monitored for one radionuclide, then they are no longer eligible for coworker dose and only should receive environmental dose. And we recommend additional discussion on this topic.

MEMBER MUNN: I'm sorry. You recommend what?

MS. GOGLIOTTI: Additional discussion.

MEMBER MUNN: Oh.

CHAIR KOTELCHUCK: Folks want to weigh

in on that?

MEMBER MUNN: Well, again, it seems to me that there is the statement that NIOSH has made which makes perfect sense. That they already have at least one bioassay, then it doesn't seem to me that the unmonitored worker item would apply to them unless there is a ---

(Telephonic interference)

MR. SIEBERT: This is Scott. Wow, there is a lot reverb, isn't there?

MEMBER BEACH: There is a ton. It's hard to hear.

MR. KATZ: Again, everyone but the speaker needs to mute their phone. That is how you get the reverb.

MR. SIEBERT: Okay.

MEMBER MUNN: Well, there seems to be trouble with mine, my phone. Maybe for some reason known only to God and my landline provider, I have no long distance service on the landline, so I am having to use my cell phone.

MEMBER BEACH: You know, Wanda, I'm

having the same issue.

MR. KATZ: Yes, but it is Wanda's that is echoing. Wanda, are you muting your phone?

MEMBER MUNN: I'm using my cell phone because my land line is shot.

MR. CALHOUN: Ted, you are actually echoing and so was Scott.

MEMBER MUNN: I'll try my landline one more time but Josie is having the same problem. This may be a local problem with our provider.

MEMBER BEACH: Yes, Wanda, mine is not working either. So, it must be local. I was going to call on that break and find out what is going on.

MEMBER MUNN: Yes, I think I will probably do the same but they will tell us they are having problems and they will let us know when they are well. We're trying.

Meanwhile, I don't have another solution.

MR. SIEBERT: Well, this is Scott. What I was going to point out is the Savannah River

Work Group has been working on this extensively as part of their coworker discussions. And there are going to be changes in how coworker is applied and dealing with unmonitored workers and locations in the next TBD. But I believe, and Grady can correct me if I am wrong, I don't believe any of that is fully nailed down yet. So, what we have been doing, historically, is what we have referenced here. And once all that gets ironed out and the Technical Basis Document is updated, we know there will be changes in how it is all applied. I just can't tell you specifically how the changes are going to be applied until that whole process plays out.

MR. KATZ: So, it sounds like, Scott, from what you are saying, this is, in standard fashion, a finding then that you table until the Work Group, or wherever it is getting resolved, resolves it.

MR. SIEBERT: How you guys want to handle that is entirely up to you.

MR. KATZ: Right and normally what we do is we then leave this in progress. We wait for

the report out from whoever the deciding body is, you are saying the SRS group is addressing this. And in the meantime, it just sits there.

MR. SIEBERT: Right. That may or may not change with the finishing.

MR. KATZ: Understood.

MEMBER MUNN: I would suggest that we simply note on our BRS that we are awaiting the results of the Work Group's discussion.

MR. KATZ: Right. And Rose, just reference the SRS Work Group here.

MS. GOGLIOTTI: Okay, that sounds reasonable.

MR. KATZ: Thanks.

MS. GOGLIOTTI: And now actually the only other one in the SRS matrix here is also waiting for an SRS Work Group decision. So, I would recommend that we just move on to the next matrix.

MEMBER MUNN: Excellent.

CHAIR KOTELCHUCK: Louder.

MS. GOGLIOTTI: We will switch here --

CHAIR KOTELCHUCK: Dave. I have changed phones. I have a land line.

MR. KATZ: Okay and Dave, did you catch all of that?

CHAIR KOTELCHUCK: I caught -- yes, I caught it on audio.

MR. KATZ: Okay, good.

MS. GOGLIOTTI: Okay, the next finding here that we have open in this matrix is 388.1. I'll pull this up here for a moment.

And here the original finding says that NIOSH did not assign 1966 recorded neutron dose. And NIOSH agreed with us here but we do have one question. Apparently they said that there will be an RFP PER following the conclusion of the TBD. And we are wondering if this particular issue will be encompassed by that PER. In cases that were adversely impacted by, I believe this is a workbook error, it would be corrected as part of that PER.

MR. SIEBERT: That's correct. Until the SEC process is fully complete and the TBD is completed, I can't tell you the scope of the PER

and whether it will include all these cases or not but I can tell you that this is on the list of issues that we need to deal with in any PER from Rocky Flats. So, regardless of whether the PER based on the changes to the TBD reflect this specifically or not, we will be dealing with this issue.

MS. GOGLIOTTI: Okay. And if that is the case, we will recommend closing this issue. And actually, the same issue also applies to 388.2. It is simply a workbook issue. The workbook wasn't probably reacting to all the dose that was input into it. And NIOSH has already corrected that issue and apparently it will be covered in the PER. So, I am including that as well.

MR. SIEBERT: I'm sorry. Just for my notes, which ones specifically have we closed?

MS. GOGLIOTTI: 388.1 and this would be 388.2.

MR. SIEBERT: Okay, I just wanted to verify. Thank you.

MEMBER MUNN: Do you know whether this one is also on the list?

MR. KATZ: Wanda, do you want to repeat your question?

MEMBER MUNN: I said do we know if this one is also on the list to be addressed.

MR. SIEBERT: It is the same issue.

MEMBER MUNN: Then I think that we need to make a notation on our BRS that this has been noted by NIOSH that it is on the list to be addressed and we have nothing more to do in a case like that.

CHAIR KOTELCHUCK: I was on mute. Excuse me. But Rose, when you were saying we were discussing 388.1 and what other one?

MS. GOGLIOTTI: 388.2.

CHAIR KOTELCHUCK: Oh, .1 and .2, okay.

I don't see that on my list for this discussion on the agenda. It could be my list.

MS. GOGLIOTTI: It wasn't on your list. I apologize but --

CHAIR KOTELCHUCK: Oh, that's okay. That is perfectly alright. I am still having trouble. I did not get Nancy Adams' note on my CDC computer. It hasn't come in yet and I can't get

in on Live Meeting. So, I am having a lot of trouble.

MR. KATZ: I will send you the Live Meeting connection again, Dave.

CHAIR KOTELCHUCK: Pardon?

MR. KATZ: I will send you the connection again.

CHAIR KOTELCHUCK: Okay, send it to my Hunter address.

MR. KATZ: Oh, okay.

CHAIR KOTELCHUCK: Well, frankly, and this is because it is very difficult sharing without an ability to --

MR. KATZ: Will do. Will do.

CHAIR KOTELCHUCK: Thank you.

MS. GOGLIOTTI: Okay. Now, the next open issue in this matrix is 419.2 and this is an RFP from the Lawrence Livermore and NTS case.

And here the finding says that there was an incomplete assessment of neutron dose at RFP. And we have discussed this previously.

And although NIOSH doesn't have a

response directly in here in the BRS, I spoke with them offline and -- 419.1 and that hasn't been corrected yet. Nope. No, I guess --

MEMBER MUNN: I'm sorry, Rose. I didn't get that completely. I'm trying, which we all are trying with our phones here.

MS. GOGLIOTTI: I understand.

MEMBER MUNN: Would you repeat the last part of your last comment?

MS. GOGLIOTTI: Although that there is not an entry directly here in the BRS, I did contact Beth offline and I guess the response got entered into the wrong --

Here, the finding says that or the NIOSH response says that the claimant [identifying information redacted] at Rocky Flats and did not enter any RMA areas. Therefore, there were no monitoring or dosimeters required.

MEMBER MUNN: Yes, okay.

MS. GOGLIOTTI: And I contacted her again offline because I was curious. That is not reflected at all in this EE's file. And according

to her, I believe she said Grady had contacted the EE's employer, who was a contractor -- I won't give out the name for PI information -- and they had told them that but that is not in any of the records -- in that respect how dose should have been assigned. The guidance document says that if there is large gaps in the EE's dosimetry, then coworker dose would be assigned. And that was not done. However, NIOSH is arguing that it wasn't necessary.

So, I'm not really sure how to treat this.

MEMBER MUNN: So, this is Wanda. From my perspective, that we check the things from the very beginning is failure to have accurate information. There wasn't any reason for dosimetry to be used over a certain period. If the employer had the records indicating that this was the case and the employee was not being sent -- going into the exposure area at all and was in fact working somewhere else at the time, then that seems to me to be a reasonable piece of information to be added to the file and to give us to make the

resolution right here.

MR. KATZ: Right. So, this is a case of an observation, then, Rose, a correct observation that the documentation isn't in order.

MS. GOGLIOTTI: Well, I would point out, though, that they didn't have that information when they were making the assessment.

MR. KATZ: Oh.

MS. GOGLIOTTI: So, they failed to follow their own guidance. And then it turns out it was okay after the fact when they got more information.

MR. KATZ: I see.

MR. CALHOUN: This is Grady here. I don't want to let that go completely. Based on the era when the individual worked and based on the job descriptions that we had, we believe that that was the case. Only when it became questioned during this review did we go to get further information. And that just confirmed what our decision was already. It wasn't really just a shot in the dark like is being presented here.

MS. GOGLIOTTI: The only information that we really had to go off of is RFP employment was the survivor's claim that he helped with cleanup. And it is unclear what site that might have happened at because he was employed at multiple sites. But to us that would indicate that to trigger, he may have had exposure risk.

MEMBER MUNN: Well, it doesn't seem to be a major problem. It is just a question of having had incomplete information at the time the file was first addressed. And further requests for additional information have revealed that it wasn't necessary at the time.

So --

MS. GOGLIOTTI: It also makes me question, if the contractor had more information why wasn't that already provided?

MEMBER MUNN: Yes, true.

What we are really and truly debating here is whether or not some standard needs to be pointed in one direction or another, not whether the case itself has been properly handled.

MS. GOGLIOTTI: Correct.

MEMBER MUNN: Well, we feel we now have enough accurate information or at least more complete information. And the file will be handled accordingly. It is no longer an issue for us, correct?

MR. KATZ: Right. I mean so I would still suggest to you that this is an observation because dose reconstruction was done correctly, irrespective of whether the process followed was ideal or proper.

MEMBER MUNN: Additional information now confirms that the dose reconstruction was found to be done correctly, given the new information.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: Now is there a process that NIOSH seeks this information from contractors when it is not already part of the DOE file?

MR. CALHOUN: Typically not. I mean we can and like in this case but we typically go with whatever is provided to us by DOE and DOL.

MS. GOGLIOTTI: I would just be

concerned that other employees might also fall into this same category.

MEMBER BEACH: Rose, this is Josie. I would say that would be true, especially when it is a survivor that they are talking with.

MS. GOGLIOTTI: Okay. Well, it has been pointed out that that might be a potential hole.

MR. KATZ: Right. Well, it is up to the Subcommittee to decide how you want to characterize this and close it.

CHAIR KOTELCHUCK: I just got back on. I finally, finally got on to the website. So, I am sort of out of this conversation. I came in in the middle. I heard -- I have been on audio all the time, of course.

So, do continue, folks.

MR. KATZ: Well, Dave, at this point, it is really up to the Subcommittee to decide how you want to characterize this. Is this a finding or an observation? And then you can close it.

CHAIR KOTELCHUCK: Yes. I will take

advice on this because I feel like I have been too distracted trying to get on, while the meeting is going on.

So, I would welcome a statement from Committee Members as to whether this is an observation or finding and then simply ask for folks to vote on that.

So, do I have someone making a suggestion, making a motion, if you will?

MEMBER BEACH: Well, I think it should remain a finding, although we have additional information. The information at the time, it was the finding.

CHAIR KOTELCHUCK: Yes.

MEMBER BEACH: So I personally don't think it should go as an observation at this time.

CHAIR KOTELCHUCK: Okay, a comment for a finding. Do others agree it should be a finding or there is clearly disagreement? Would somebody state a case for observation for the record, if you will?

MEMBER MUNN: This is Wanda. I can't

make a statement for an observation because I think Josie's observation was correct: given information that our contractor has to work with at the outset, it would appear to be a finding. Additional information now reveals that the dose reconstruction was performed in the correct manner in light of the new information. So, and it is closed as a result of that. That there is an even bigger sample on the record to deal with that.

CHAIR KOTELCHUCK: So, you would agree it is a finding?

MEMBER MUNN: Yes.

CHAIR KOTELCHUCK: Okay. Well, then are people agreed then it should be a finding, the Subcommittee Members?

MEMBER CLAWSON: This is Brad. I feel it is a finding.

CHAIR KOTELCHUCK: Okay. Any others?

MEMBER POSTON: This is John. I agree.

CHAIR KOTELCHUCK: Okay. Alright. Then, I think we should close this as a finding and

go on to the next.

MS. GOGLIOTTI: Okay. Actually, the next finding, 419.3 and 419.4 are all related to that same issue. If you accept that there was risk of exposure, then ambient dose was assigned incorrectly and also internal dose wasn't handled correctly by that assumption.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: So, I would recommend that we close those as well.

CHAIR KOTELCHUCK: Okay, fine.

MS. GOGLIOTTI: Okay and then the next one is also part of the same case. It is 419 Observation 1.

CHAIR KOTELCHUCK: Yes.

MS. GOGLIOTTI: And here we just pointed out that, although this case was done correctly and followed OTIB-5 recommendations, this particular case had a cancer that was a secondary cancer so it was treated different than primary cancers. Multiple dose reconstructions need to be done on different organs and then the

highest was assigned. And that was not mentioned at all in the DR report. We did see evidence of it in the files that were presented along with the DR but it wasn't actually stated in the DR and we just felt that it should have been mentioned. And NIOSH did agree with what is here.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: So, we recommend closure.

CHAIR KOTELCHUCK: Alright, that sounds reasonable.

MS. GOGLIOTTI: It's been a standard process of not mentioning it, a secondary cancer and the additional work that needs to go into it. I believe this is the first secondary cancer we have ever reviewed.

CHAIR KOTELCHUCK: Aha. Scott or Grady?

MR. SIEBERT: Sorry, I had to get off mute. No, normally we have a blurb in there that states, as a secondary cancer, there were multiple primary cancers and the one that was used was the

one that was given, again, the largest PoC.

MS. GOGLIOTTI: Okay, so this was an abnormality.

CHAIR KOTELCHUCK: Alright.

MS. GOGLIOTTI: Okay, I just wanted to verify that. And that would wrap up everything in our Fernald-Mound RFP matrix.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: So, we will go on to the INL-NTS matrix.

And turning to the first one that is open, which is 383.4 and this is an INL-NTS case. And here the finding states that NIOSH admitted one zero dose for 1965 and applied excess kidney dose. And NIOSH did agree with us that the NTS dosimeter was missing but they disagreed with the secondary part about the excess kidney zero doses.

We have talked about this before. And here, NIOSH went in and investigated the problem.

CHAIR KOTELCHUCK: I don't understand when you say zero kidney dose -- kidney zero doses.

MS. GOGLIOTTI: A zero would be a blank

in the dosimetry file or something that would be less than half of the LOD.

CHAIR KOTELCHUCK: Yes.

MS. GOGLIOTTI: And so missed doses assigned in those cases.

CHAIR KOTELCHUCK: I see, okay. Okay. Go ahead.

MS. GOGLIOTTI: Okay. So, after NIOSH investigated, they found that SC&A was correct and that a different number of zeros was used for the prostate calculation. And it turned out to be a dose reconstructor error. They didn't save the file.

And so the problem has been identified and we would recommend closing this.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: And actually, the case is already going to be reworked under PER.

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: And the cases is already going to be reworked under PER.

MR. SIEBERT: Just for clarification,

it already has been reworked under the PER.

MS. GOGLIOTTI: Okay.

CHAIR KOTELCHUCK: Oh, okay. Alright.

MS. GOGLIOTTI: We would recommend closing that.

CHAIR KOTELCHUCK: Right. Okay. Any objection, folks?

MEMBER MUNN: None.

CHAIR KOTELCHUCK: Okay.

MEMBER BEACH: None here.

CHAIR KOTELCHUCK: Okay, good. Then it'll be closed.

MS. GOGLIOTTI: Great. And the next, 383.8 is actually reported to the INL Work Group. So, we can skip that one and the next one would be 387, observations.

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: The next would be 387 Observation 1.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: And this is the NTS

case. And about the same, NIOSH did not include any external dose supporting worksheets in the DR report files. This is an observation just pointing out that typically we do see these files and they were not provided.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: NIOSH points out this case was already compensated because it had a PoC over 50 percent. So, additional information wasn't necessary.

CHAIR KOTELCHUCK: Right.

MS. GOGLIOTTI: This was just an administrative detail. So, we would recommend closing it.

CHAIR KOTELCHUCK: Okay.

MEMBER BEACH: Agreed, absolutely.

MEMBER CLAWSON: Sure.

MS. GOGLIOTTI: Okay, the next finding is 387.1, the same case.

CHAIR KOTELCHUCK: Yes.

MS. GOGLIOTTI: The finding states that NIOSH omitted a finding supporting the photon

reported dose for the year 1968. And here, after back and forth, we found out that it was just a QA error but being addressed -- it was a workbook error, essentially, and that has already been corrected.

And we just question if there is a PER in place that will infer that cases impacted by this workbook error are being captured.

MR. SIEBERT: And as we mentioned before on that previous one -- is this an NTS one?

CHAIR KOTELCHUCK: Yes.

MS. GOGLIOTTI: Yes.

MR. SIEBERT: Okay. There was already an NTS PER that would have caught this. So, yes.

MS. GOGLIOTTI: Okay.

CHAIR KOTELCHUCK: Alright.

MS. GOGLIOTTI: And the next one here --

MR. KATZ: Wait. So, we agree to close, right?

CHAIR KOTELCHUCK: Oh, yes, we did agree.

MEMBER MUNN: Yes.

MR. KATZ: Thanks. Okay, go on.

MS. GOGLIOTTI: 387.2, the finding states that NIOSH omitted the findings of 65 millirem beta recorded dose for the year 1968.

And NIOSH responded that the PoC was greater than 50 percent. It wasn't necessary. Although it wasn't necessary for the compensation decision, it does appear to be an unintentional omission because other years were assigned recorded beta dose. So, this particular result was just omitted from the dose reconstruction.

CHAIR KOTELCHUCK: Okay. So, it is a quality assurance.

MS. GOGLIOTTI: Yes.

CHAIR KOTELCHUCK: Yes, okay.

MEMBER CLAWSON: Close.

MEMBER BEACH: Agree to close.

CHAIR KOTELCHUCK: Closed.

MS. GOGLIOTTI: Thank you. Finding 3, NIOSH used an overestimating uncertainty factor and, of course, this claim was compensated so it

should not include overestimating factors. And NIOSH does agree the overestimating factor of two was incorrectly applied to this case. It should have used 1.23. But since beta dose is such a minor component of the overall dose, they don't feel that it had a significant impact.

So, essentially, this is a QA issue and it didn't impact compensation. So, we would recommend closing.

CHAIR KOTELCHUCK: Alright.

MEMBER BEACH: Agree.

MEMBER MUNN: Yes.

MS. GOGLIOTTI: Okay. And so the next finding, same case, Finding 4 is that NIOSH did not assign beta dose for 1961 through 1965. And NIOSH, again, responded that PoC was greater than 50 percent. It was not necessary.

CHAIR KOTELCHUCK: Okay, same issue. Observation: quality assurance. It seems to be clear.

MS. GOGLIOTTI: Okay.

CHAIR KOTELCHUCK: Unless folks

disagree.

MEMBER BEACH: Well, I agree but I have a question. If it wasn't compensated, that dose would have been added. Is that correct?

CHAIR KOTELCHUCK: Yes. Yes, sure.

MR. CALHOUN: And there has actually been some changes to that workbook, like we said, that make it -- it is a little bit more user-friendly now and it actually, I am going to say technically poorly here but it reaches out and grabs the doses from the individual years that are input and this was done so long ago that that kind of more advanced workbook options weren't there but they are getting worked into the new workbooks as we develop them and revise them.

MS. BEHLING: This is Kathy Behling. So, this was a workbook error and this was covered under that initial PER?

MR. SIEBERT: Well, this is a compensable claim that wouldn't be covered under PER.

MS. BEHLING: No, I mean if it was a

workbook error, it is going to impact other cases other than this. And you indicated that because of a workbook error, there was a PER issued and I assumed that this beta dose issue was also addressed in that.

MR. SIEBERT: No, there was a separate NTS PER that was recently completed that would have included these claims. So, yes.

CHAIR KOTELCHUCK: Alright, we will close this.

MS. GOGLIOTTI: Okay. The next finding, same case, Finding 5, a case that NIOSH omitted photon doses for 1963 and gave the incorrect MDL for 1971.

And this is kind of an interesting case. The original case was done and included 1963 because there is dosimetry records indicating that the EE worked at the site in 1963. However, the claim was actually reworked to remove 1963.

MR. KATZ: I'm sorry, Rose, to interrupt, but someone is not muted and we can hear sirens and so on.

Okay, go on, Rose.

MS. GOGLIOTTI: Okay. So, the case was reworked to remove 1963 because that is not a covered year for the site.

And so I guess this is where the confusion lies since most of the DOE records show 1963 as being a covered year but when we reworked those files, obviously they don't get updated because they were historical at that point.

And so to us it appeared that 1963 should have been covered when it was actually removed intentionally.

CHAIR KOTELCHUCK: Well, this is Dave. But at a formal level, we only look at what DOL verifies. So, even though it may have been a DOL error, if we did not catch it, then we have to abide by what DOL said, in which case to my mind this wouldn't even be -- this would be an observation and a correct one, it appears to me. But I don't even see this as a finding in terms of the coverage of 1963.

MEMBER MUNN: Well, I would agree with

you in 20/20 hindsight but at the time the case was being worked, it would appear to have been an omission. It is a logical thing to want to change it as a finding. And if afterwards, we made decision it is not a covered year and that is -- but perhaps I am misunderstanding what you discussed.

CHAIR KOTELCHUCK: Well, there is the 1963 issue and then there is the 1971 issues, which cover, if you will, handle the covered period. And that part of it seems to me to be a finding. I just would -- let's put it this way. I just don't see the first line 1963 as something that is material for a finding. But the other part is, I guess. It is.

MS. GOGLIOTTI: If I could add something, I guess the thing that is a red flag in my mind is this is not an AWE site. Project Gnome was a nuclear explosion site.

So, if there is evidence that the EE was working there past the covered years, that, to me, is a flag but there was likely work going on outside

of the covered period of time.

MR. CALHOUN: Okay, this is Grady. Let me clarify this a bit.

CHAIR KOTELCHUCK: Okay.

MR. CALHOUN: If we are doing the case that we know is comp, we cannot include dose from a year that has not been verified by Labor. If this case was going non-comp, we could send that information back to Labor and say hey, we have got good information that this was a covered year and they will almost always add that to the covered employment.

But because this is a comp case, we cannot include that dose.

MS. GOGLIOTTI: My question was more from a larger perspective. If this EE was on-site at that time, then work must have been going on at that time as part of the DOE mission.

CHAIR KOTELCHUCK: But this is -- this was compensated. Because it was compensated, it was -- we just can't -- properly, we cannot deal with your observation that there was work going on

in '63. I agree.

MS. GOGLIOTTI: I agree with you on that but I am thinking about the broader picture of other employees that may have been working on-site at that time.

CHAIR KOTELCHUCK: Aha. Then, if they were not compensated, as Grady said, they would send it back to DOL. But presumably, all those -- Grady, everybody was compensated, right, on that one? Everybody working at that site.

MS. GOGLIOTTI: This individual was compensated.

MR. CALHOUN: Here is what she is looking for, Dave. The covered period approved by -- the official covered period ends on June 30th, 1962. And there is dosimetry information from 1963. What she is looking for is a request from us or DOL or somebody to reevaluate the covered period -- I believe that is what she is looking for --

MS. GOGLIOTTI: That is exactly right.

MR. CALHOUN: -- to include 1963.

Now, this dosimetry very well could have been issued by a different site. I guess it is actually NTS. And I am not going to guess that it was issued by NTS and he was working somewhere else, but that could have been the case, too.

But it really is -- the bigger point, it is irrelevant to this case. It can go on but I see what she is looking for.

CHAIR KOTELCHUCK: Right. But and my question to you was would any case be affected by going back to DOL for this.

MR. CALHOUN: If DOL decided that there was additional employment to be covered, it would be up to DOL to send that information to us and to begin considering that as covered employment.

I mean, there is a chance that DOL could send us a case and never even mention those dates. So, sure, but I don't want to pass the buck here but it is really a DOL issue.

CHAIR KOTELCHUCK: There is even a possibility, and logically there is a possibility that if work was going on in '63 in this case, that

somebody could have missed being compensated because they didn't work 250 days. Yes?

MR. CALHOUN: But Project Gnome I don't believe is SEC. NTS is, but Project Gnome is not.

CHAIR KOTELCHUCK: Aha. Aha.

MR. KATZ: In any event -- this is Ted -- I don't see how this gets construed as a defect in this dose reconstruction case.

MR. CALHOUN: Exactly.

MR. KATZ: I do not see that.

MS. GOGLIOTTI: Yes, for the 1963, I agree that was an error on our part that we missed because the files don't clearly indicate that would happen even if you read deep into the DOL files.

However, the 1971 was still valid, I believe.

CHAIR KOTELCHUCK: Yes, it appears that seems to be the case.

And that would qualify as an observation. The question is what we do with that first sentence. Do we effectively eliminate consideration of it? Do we delete it or do we send

a note back to DOL in case it might affect other cases?

And if there is any question, it seems to me I would go back and ask for DOL, unless one is certain that everybody who might be affected by that is compensated. If there are any cases that are not compensated, then, say on Project Gnome, then I think we have an obligation to go back to DOL and ask them to verify.

MR. CALHOUN: Oh my. This is completely beyond what we are doing here, I think.

MEMBER MUNN: We are really way off.

MR. CALHOUN: Yes, I mean this is getting into covered periods at facilities and I don't know.

CHAIR KOTELCHUCK: Well, alright. This is not a dose reconstruction review. Our committee is Dose Reconstruction Review. This issue is not a review issue. It is not in our mandate.

So, I am perfectly -- is it in somebody else's mandate and whose?

MEMBER MUNN: Well, whether it is or is not, it is not in our purview. There is no question about that. And anything other than -- we can't conjecture what if and what if not. We can only work with the information available to us. That is what we have done. We have looked at the case. We have reached a conclusion from our experience, there is no reason to indicate that it was not handled properly, given the information that is available to us.

And if there isn't more information to be gained, anything else is administrative or in some way outside the realm of that finding and doing what is necessary to be done in this specific case that has been done.

CHAIR KOTELCHUCK: Well, I have to agree it is outside of our mandate. Absolutely, I acknowledge that.

Can I ask you, Ted, is this -- as our DFO, what -- we happened on something that is outside of our purview but that may be of some concern in terms of affecting compensation in some

cases.

MR. KATZ: I mean, I just -- this is a question for Grady. But it seems to me if they received another case where their dose is in '63 and that case is not compensable, whereas this was, they would follow that normal procedure of going back and saying, DOL, we have doses in a year that doesn't appear to be part of the covered period.

I mean this wasn't and they didn't but if they received another case, they would, right?

MR. CALHOUN: Yes, this is Grady. Yes, we would do that.

And how about this? How about I go back and I will look at this case and look at the records but let's completely divorce it from this committee and this case. And I can get back with some people offline and see if there is something we can do but let's just keep it out of what we are doing right now.

CHAIR KOTELCHUCK: I think that sounds like a fine suggestion, as long as somebody responsible is keeping an eye on an issue that has

come up. But as far as the committee goes, that is not -- this is outside of our mandate.

But it is an observation, we agree -- excuse me -- a finding, we agree, the rest of it. And it is a finding that we would approve, right?

MR. KATZ: If you could just repeat what is the finding that you are supporting.

CHAIR KOTELCHUCK: The 1971. The two lines, it is an underestimating measure.

MEMBER MUNN: Yes, and we are following the mitigation slope.

CHAIR KOTELCHUCK: Right. And, Grady, thanks for checking it out and you will do what is appropriate and responsible.

So, can we go on?

MEMBER BEACH: Yes.

CHAIR KOTELCHUCK: Good. Okay.

MS. GOGLIOTTI: Okay, so the next finding is Finding 6 from the same case. Based on NIOSH's views, the primary beam for face and neck cancers and that is in reference to x-ray, medical exposure.

And there was some disagreement about which revision was used for PROC 61. We believe NIOSH used PROC 61 Rev. 1, which was from 2006. However, Rev. 2 is from 2008 and Rev. 3a is from 2009, that would indicate they should have used a different -- well, it was a different area than what was selected. And both of those were issued after the DR was completed -- or were issued before the DR was completed. I'm sorry. And so it should have superseded Rev. 1.

And that is only important because this case had a PoC of just slightly greater than 50 percent. However, this particular issue wouldn't impact compensation when we consider --

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: This issue wouldn't adversely affect compensation when you consider all the other findings in this case.

CHAIR KOTELCHUCK: Response?

MR. CALHOUN: I agree with that.

CHAIR KOTELCHUCK: Okay.

MR. SIEBERT: This is Scott. Just one

clarification. The Rev. 3a, the letter revisions that are in the record are not actually approved versions of our document. They are only the numbered revs. So, that is an interim document that was being worked on during that time frame so that that should not be compared to any dose reconstruction. It should only be the official version.

MS. GOGLIOTTI: Really? Okay. Interesting.

So, if we see a lettered revision, we should disregard it? Is that what I am hearing?

MR. SIEBERT: I am honestly wondering how you got a lettered version, to tell you the truth because that is an internal process.

DR. BUCHANAN: Okay, Dave, this is Ron with SC&A. The rev below it was issued before the DR and it would have lowered the dose. And 3a would lower the dose also. But if you use the Rev 2 before it, it still would have used a different exit dose instead of entrance dose. So, it would have been less dose assignment.

MR. SIEBERT: Right. I don't think Grady and I are arguing about the Rev. 2 version. It is just I want to point out the Rev. 3a is not an official version.

DR. BUCHANAN: Okay, that is good to know because we were not aware of that.

MEMBER MUNN: That sounds reasonable. And so Rose's question was a good one, one that should be taken to heart. If you have a lettered version, it is an internal, not official, and not ever been used version. It should not be used, relied upon for decision with regard to how this was handled.

That is something I didn't know. Of course that is because it is an internal document and we haven't seen them before.

MR. SIEBERT: Well that is kind of the question. How was this document obtained?

MEMBER MUNN: Exactly, yes, how it got into the file. But nevertheless, that is, again, not in our purview.

CHAIR KOTELCHUCK: So that the issue of

3a is not for our consideration.

MEMBER MUNN: That's correct, at least from my point of view.

CHAIR KOTELCHUCK: Right.

MR. SIEBERT: I just wanted to point it out for SC&A for the future.

MEMBER MUNN: Yes.

CHAIR KOTELCHUCK: Fine but where does that leave --

MR. KATZ: So, the finding is still affirmed because Rev. 2 would have done the same thing, lowered the dose.

CHAIR KOTELCHUCK: I see.

MR. KATZ: The finding is still affirmed, it is just this issue of Rev. 3a. It is sort of an internal issue.

CHAIR KOTELCHUCK: Okay, right. Okay, so Rev. 2 would have done the same. Okay.

Then is it a finding that we approve, folks? It sounds like it.

MR. KATZ: Yes, I think so because NIOSH agrees.

CHAIR KOTELCHUCK: Yes. Yes, there is agreement.

Okay, folks, unless I hear objection, then we will approve.

MEMBER MUNN: Yes.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: Okay, the next case with Finding 7 that says NIOSH omitted tritium bioassay data for 1963. So, this is essentially the same issue as 5. So, I would recommend closing this as well.

CHAIR KOTELCHUCK: Okay.

MEMBER MUNN: Done.

CHAIR KOTELCHUCK: Agreed.

MS. GOGLIOTTI: Finding 8, the same case. It says that NIOSH did not address the 1967 bioassay data for fission products. And NIOSH, again, came back and said that the PoC was greater than 50 percent.

And we agree that it wouldn't impact compensation decisions but we believe it is still appropriate to acknowledge the bioassay results

and indicate why it was omitted from the DR in the DR report.

CHAIR KOTELCHUCK: Okay. It sounds reasonable.

MR. KATZ: Well, can I be clear about that one, though? I mean it is not they did that on purpose because it is not necessary dose. Is that a defect or not?

MR. CALHOUN: That would be an observation I would think or just an area for improvement or something.

MR. KATZ: I mean that is how we treated problems with the DR report versus problems with the DR.

CHAIR KOTELCHUCK: Yes, that's true.

MS. GOGLIOTTI: From our perspective, we always point out when things are missing and we don't know if it was intentionally omitted from the dose reconstruction and I am still not positive that it was intentionally omitted.

MEMBER BEACH: Well and just because it didn't impact this case --

MR. KATZ: Okay, I mean there is -- again, that is a question for NIOSH as to whether this was an intentional omission or whether --

MR. CALHOUN: Well, the fact the matter is, is maybe we could have been clearer in the DRs and what we do now is a lot of times what you will see is you will see there was no need to include internal dose because the external dose was sufficient, blah, blah, blah. And we could have been clearer there but calling this a finding really doesn't make sense because we can't include all of the reasons for stuff that we don't do in a DR. We like to include stuff that we do do, especially when it is a comp case. So, that is just where we stand.

And although you are not convinced that we did it intentionally, that will never get resolved, other than, I believe, we did omit it intentionally.

So, it is a comp case, I believe that it is an observation and could have done better in describing what we omitted and we do that now a

little bit more consistently.

CHAIR KOTELCHUCK: Okay. I am buying. I buy the argument that it is an observation. I think it is a perfectly good position. It is the report that we are concerned about, not the actual dose reconstruction.

MEMBER MUNN: Well, but there is another thing, another issue here also. It seems to me that we, as a Subcommittee, need to get comfortable with the fact that if we are going to do accelerated kinds of processes like we have done for years and this is why we take a view that we just simply accept the fact that we can pointedly know something is compensable, missing all of the things that are also there that you didn't look at. You know, what does that really achieve for us except where we are dealing in administrative activity ten years after the fact being able to say, well, tsk-tsk, why didn't we say this; why didn't we say that.

Are we not comfortable with doing accelerated dose reconstruction? There is no

reason why we shouldn't, if we are going to compensate on one, then why do we have to list everything that we did not take into consideration?

CHAIR KOTELCHUCK: Right.

MEMBER MUNN: The whole point was to do it as quickly as possible, once we know it is compensable.

CHAIR KOTELCHUCK: I agree.

MEMBER BEACH: But the point is if it wasn't compensable, would they have still added that dose?

MR. KATZ: I mean I think, Josie, I think we have to credit -- actually they have been very honest about their QA errors when they have QA errors and I think you have to give them the benefit of the doubt that they are speaking truthfully. I mean we all know there is efficiency processes used on many, many cases. And they are saying that is what they have done here and I think you have got to credit that.

MS. BEHLING: This is Kathy Behling. Just one additional item. This particular case

did have eight findings and three of the earlier findings were external doses that were also omitted. And so I guess once we got to the internal portion and we saw some additional dose that was omitted, we started to question whether these were intentional or unintentional, maybe question who did this particular dose reconstruction and some of the other issues. That's the only thing I want to point out, that there were a lot of other omissions in this particular dose reconstruction.

CHAIR KOTELCHUCK: But I think one has to -- I think it is proper to assume once it hits 50 percent PoC that other things simply are not pursued and that the benefit of the doubt is given, in this case, to the folks doing the dose reconstruction. That is to say, I think SC&A should have or should try in the future to have observations -- have statements like this be observations. Which is to say, you presumably -- you know that it is compensated.

MS. BEHLING: At what point does NIOSH know that it is compensated, in the external

portion already? This is very close. It is just over the 50 percent.

MR. CALHOUN: Well, it is an iterative process. It is like, well, we start doing the dose reconstruction and then run a PoC. And once it becomes over 50 percent, we are done.

MS. BEHLING: Right. I understand.

CHAIR KOTELCHUCK: I would suggest that SC&A give the benefit of the doubt to NIOSH and that they simply -- by all means, if you wish to record it, record it. But it is strictly an observation.

MEMBER RICHARDSON: This is David Richardson. I guess I disagree. I think we are asking SC&A to play this role of questioning omissions to flagging it, to question the logic of how things are done.

I mean if there is omissions early on and they don't yet know that they are at 50 percent, to say that they shouldn't be flagged as potential omissions with not knowing where the case is going seems to me like -- we can discuss it afterwards

but I think we are asking them to kind of just kind of turn a blind eye to things seems like a waste of our time.

CHAIR KOTELCHUCK: No, an observation is not turning a blind eye.

MEMBER BEACH: But Dave, without documentation as to why it was omitted -- and I'm not saying NIOSH is not honest or dishonest but I still think it should be a finding.

CHAIR KOTELCHUCK: Let me understand. When SC&A is going over and reviewing this, do they know what the PoC was and that it was compensated?

MS. GOGLIOTTI: Yes, we do know that.

CHAIR KOTELCHUCK: Then --

MS. GOGLIOTTI: Well, I guess from our perspective, Dave, this was not an 80 percent PoC that is clearly an overestimating case -- or an underestimating case. I'm sorry. This is a close to 50 percent case.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: It falls in more of a best estimate.

MS. BEHLING: And I guess we also ask these questions about omissions not specifically only for this particular case but to determine is there a systemic issue here. Should we be questioning if this is perhaps impacting other cases?

And so especially in this particular case, because the NTS workbook, up front early on, as NIOSH admits to, was not the best workbook, there seems to be some errors here. We were not necessarily aware of that. And so you don't know if it is just a dose reconstructor that didn't look at the records close enough or if it is a workbook issue. So, I think we feel we need to ask them these questions to determine if it goes beyond this particular, whether this case is compensated or not. It may impact others. That is, I think, a lot of the times what SC&A tries to consider.

MR. KATZ: Dave, this is Ted. And I agree with all that that was just said from Dave, David, and also from Kathy. My only point is that when you come to the discussion of it in the

Subcommittee where some of the doses -- I mean I don't think SC&A can know in advance what was intentional or not and I think it is fine for them to initiate this as a finding but once you have a Subcommittee discussion and NIOSH says we intentionally omitted that, I think we should trust them that they are telling the truth because they have been very open in admitting where it was a QA problem and it wasn't that they intended to omit it or it was workbook problems.

That's all I'm saying. And so --

CHAIR KOTELCHUCK: So you are saying that at this stage, at this point --

MR. KATZ: Yes.

CHAIR KOTELCHUCK: -- it is the Subcommittee that should turn this into an observation but that it should not have been turned into an observation earlier, or frankly isn't necessary to suggest that SC&A --

MR. KATZ: Yes, that's all I am saying. I think this is the appropriate point because this is when NIOSH has a chance to respond and you find

out. This has happened many times. We have had many cases like this.

CHAIR KOTELCHUCK: Yes.

MEMBER MUNN: And that is another case here. That is one of the things that seems to be at issue here. Dose reconstructors can specify but the concern is did you or did you not consider other things. The point is, once it is over 50 percent, even if it is just slightly over 50 percent, it is fine for us to review it administratively and act was would be implied. This case was compensated based on a numerical analysis that shows they were going to have more exposure than was necessary to be compensated.

And whether you review other things or not doesn't mean that you are ever going to go back from that. Your decision has been made to compensate this person. And regardless of the esoteric arithmetic issues later, you are not going to encounter something that will withdraw. Either the calculations are -- you are not going to reduce the dose.

If it were slightly under, I think there would be a valid argument. But as long as it is even the slightest bit over, there is not a valid argument for SC&A to look at it.

CHAIR KOTELCHUCK: So -- go ahead.

MEMBER BEACH: Dave, this is Josie. I'm sorry, I can't agree with that, only because I didn't clearly hear from NIOSH that it was an omission intentionally, and there were so many other omissions on the external and internal and it was such a close number to the PoC.

MR. CALHOUN: Okay, here's the deal. This thing was completed in March of 2009. And I can't -- I assume -- all I can do is assume that it was done intentionally. And, you know, I don't know, based on all this discussion and all the work we had to do, I mean, just call it a finding and move on, you know? It's not worth arguing.

CHAIR KOTELCHUCK: Well, let's put it this way, I think, as a Subcommittee, we have a responsibility beyond your -- even though I respect your feeling of just forget about it.

Also, I think this is proper for -- this kind of discussion is absolutely proper for the Subcommittee. And I still feel like it should be an observation, but I base it, David, on what you have said. I do agree that it is not up to me to criticize, as a Board Member, to criticize SC&A for listing it. Everything they see they need to put down and we will decide whether it is an observation or a finding.

MEMBER RICHARDSON: I had one further thing.

CHAIR KOTELCHUCK: Sure.

MEMBER RICHARDSON: I really -- I have no desire to engage in discussion about intent. You know, I have no basis for evaluating it. It's just a gut feeling, like everybody who is on the call. So, and I would suggest that we move away from evaluation of intention. What we are looking for is logic and clarity, and if there are questions about things which already -- issues of fact, then those are the things that we note and record.

And I also -- we have a responsibility

to make sure that things are done in a way which is fair, and that means fair to all parties involved. So, if there are errors that are made that lead to judgments that we're falsely compensating people, those would be errors also of concern. So I think the fact that you say, well, it exceeded 50 percent and so we really don't want to bother about the logic of how we got there and we close the book because we're never turn back on that. Part of our role is to evaluate is there a reproducible and consistent and fair process by which we are getting to make a decision. I think we need to scrutinize most cases that are above 50 percent, as well as those below.

And the fact that there's -- we can flag out a series of problems in a case, means that we need to look at the case. And I actually agree with the question of, when there are more problems, we begin to kind of want to look more clearly at where we have ended up.

MEMBER MUNN: Well, you have just answered my question. My original question was,

are we ever going to be comfortable with the fact that it's okay to do these accelerated cases? And your answer is no.

MEMBER RICHARDSON: Comfortable with what?

MEMBER MUNN: With handling accelerated cases by accepting the fact that we don't have to look at everything once we've looked at --

MEMBER RICHARDSON: No, that's not what I said. I said when there are errors along the way -- I mean, if somebody wants to clearly say, "I evaluated just the external dose and not the internal dose because I was at this point," then there would be a record there. This was the process. There is no reason to go into the second part of this or to reconstruct the medical doses. That doesn't flag out anything as erroneous.

But when a portion of the dose which has been reconstructed has errors, then it does seem to me that this is what we were given and we should look at it.

MS. GOGLIOTTI: And I do want to point out that NIOSH has called that out now. This is an historical issue.

CHAIR KOTELCHUCK: Well, that's good.

MEMBER CLAWSON: This is Brad. You know, I agree on all sides of this. And we've kind of put SC&A in a difficult situation.

And Wanda's comment about us not accepting it, we do accept it and one of the things I want us all to look at is that, because of these issues, NIOSH has changed their process, and when they hit this 50 percent they have now stated in their process that they are admitting these things because it has gone past the 50 percent, which makes it easier for us. It makes it easier for SC&A because we set into this situation, we're asking SC&A to go in there and dig through this and lay out everything that is there. And they don't stop at 50 percent. They do the whole thing.

And as far as being a finding or being an observation, I will honestly tell you it does not matter one way or the other to me. It's just

that we are addressing the issues, and that if it wasn't a compensated case, that these people, that they would still go through the process, and all this information is there to be able to help them do the right dose reconstruction.

My bottom line is making sure that the people are getting the best dose reconstruction that they can. And I will simply say that I honestly believe that NIOSH does the best job that they can. And we are all in a difficult situation, but coming into something like this, we need to be able to address the whole picture, not just half of it.

And I think -- I could care less what we call it. I don't want to ever say that NIOSH has done a failure job or whatever, or SC&A. What I want to make sure is that SC&A brings us something and that we address everything.

CHAIR KOTELCHUCK: Well, Brad, maybe I'm sensitive to the fact that I've been spending a lot of time on this report to the Secretary. And there's no question in my mind that if SC&A finds

many findings, that seems to suggest that NIOSH is perhaps not doing its job in the way that observations don't reflect on NIOSH. So, findings do reflect on NIOSH administratively.

Now, in terms of people getting compensated, which I agree, that is the first and most important thing, this issue has been resolved at the current time, in that there's a statement in there that 50 percent was achieved and, therefore, no further work was done, or something to that effect.

So, but I, personally, feel like it does make a difference whether you say observation or finding. And it's since writing with that report and working on that that I have been more sensitive to the issue of observation versus finding.

MEMBER CLAWSON: And I understand that, Dave. And I have no problem with this being an observation. I really do, because I don't see that -- I see what NIOSH has done, but on the other hand, we call out our contractor to do a certain job and they just want to make sure that all of these

-- because we're not looking at it as basically this one case. We're taking a small portion of all the cases that we are doing and we're making sure that these small cases, this small portion that we do, covers for everybody, that we are looking at all the information.

And I understand with this case, but I have had to look at it as an overall picture for all cases. Are we making sure that this information is getting fed in there?

CHAIR KOTELCHUCK: And it is proper to do so. Let us resolve this.

MR. CALHOUN: Hey, let me clarify something just a little bit.

CHAIR KOTELCHUCK: Okay.

MR. CALHOUN: Okay? And I'm not going to say any names here because I'm just looking at the DR.

It says this dose reconstruction was a partial dose reconstruction, an external dose received by whoever. It was not necessary to perform a dose reconstruction of internal dose

received from those cancers. A full dose reconstruction for the reported dose is an underestimate for claim determination purposes.

So, that's actually in there in the summary of the latest dose reconstruction.

MS. GOGLIOTTI: Did that happen after our review? I'm sorry. Because there was internal dose in this dose reconstruction.

MR. CALHOUN: Yeah, this one was the 2008 version that I'm looking at.

MS. GOGLIOTTI: -- version we reviewed, because I know for a fact that --

MR. CALHOUN: I don't know. Is that the one you reviewed?

MS. GOGLIOTTI: I'd have to go to --

MR. CALHOUN: There was a 2009 one, too. And let me go down here and see what that one says.

MS. BEHLING: Our review was in 2013. So --

MR. CALHOUN: Yeah, but I'm just looking at -- the very last one was '09. Yeah, see,

the last one it just says this reported dose is an estimate. It doesn't say that we intentionally omit it. So, we definitely could have done a better job of describing it in the last one.

MS. BEHLING: Well, we would have used the 2009 version because our review was in 2013.

MR. CALHOUN: Right. That's why I was saying I think we definitely could have done a better job of describing what we did and didn't do.

CHAIR KOTELCHUCK: I'd like to move that we call this an observation. And people do disagree or may continue to disagree. Let's just choose up and down.

So, how about those who support calling this an observation, please say aye or please report your --

MEMBER CLAWSON: Dave, each one of us may need to report for ourselves. I say that this can be classified as an observation because they addressed what our issue was. They went through their -- I have no problem with it being an observation. This is Brad.

CHAIR KOTELCHUCK: Okay. Others?

MEMBER MUNN: This is Wanda --

MEMBER POSTON: I vote for observation. This is John.

CHAIR KOTELCHUCK: Okay. Other? Wanda?

MEMBER MUNN: Observation.

CHAIR KOTELCHUCK: Observation. David?

MEMBER RICHARDSON: I'm going to abstain, I think.

CHAIR KOTELCHUCK: Okay, fine. And Josie?

MEMBER BEACH: I'm going to still say it is a finding.

CHAIR KOTELCHUCK: Okay, fine. So, as I hear, the vote is three in favor of observation, one against, and one abstention. Is that correct? Ted, that is a correct tally?

MR. KATZ: I think it is four, one, and one.

CHAIR KOTELCHUCK: Oh, four, one, and

one.

MR. KATZ: I think you left yourself out.

CHAIR KOTELCHUCK: Oh, well, I don't vote unless there is a tie. Or do I?

MR. KATZ: Yeah, you vote.

CHAIR KOTELCHUCK: Okay, four, one, and one.

MEMBER MUNN: This is not the Senate. You're okay.

CHAIR KOTELCHUCK: Okay, good. Very good. Let's never be the Senate.

Alright, four, one, and one. And this was a good discussion, even if we did spend a fair amount of time.

It is now noon Eastern Standard Time, and we have only finished -- I believe that finishes, does it, the case reviews resolution? Is there anything else?

MS. GOGLIOTTI: There's one more findings, 348.8 in this matrix, and then we will move on to the --

CHAIR KOTELCHUCK: 348.8. Folks, I move that we -- I'd like us to discuss this. Hopefully, it won't take too long. And then we will break for lunch, unless I hear objection.

MR. KATZ: Yeah, just to note --

CHAIR KOTELCHUCK: Or for breakfast in some cases.

MR. KATZ: Yeah, to note, David has to leave us at about 12:30.

CHAIR KOTELCHUCK: Okay, fine, so it will be -- then, maybe we can go on until 12:30. Would folks be open to going until 12:30, which would be 9:30 on the west coast?

MEMBER BEACH: That's fine.

MEMBER CLAWSON: That's fine with me. I won't shrivel up and blow away.

CHAIR KOTELCHUCK: Okay, very good. Wanda?

MEMBER MUNN: Same.

CHAIR KOTELCHUCK: Good, let's do it. Go right ahead.

MS. GOGLIOTTI: Okay, 348.8, which is

an NTS and PPG case. And the finding states that NIOSH omitted missed electron dose for 1971 and 1973. And NIOSH agrees. However, they feel it's not an error and believe it's in concurrence with the guidance in OTIB-17.

And this has been going on for a while, but I will just go through it here.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: If you look at OTIB-17, this guidance is contained in the appendices, which are site-specific. And there is no NTS or PPG in OTIB-17. And NIOSH said that they follow the guidance, essentially, because the NTS TBD calls out sections, or refers to OTIB-17. But it does not refer to the appendices specifically.

And we believe there needs to be a change of guidance or something. I don't believe any dose reconstructor would look at OTIB-17 and say, "this site is not SRS or another site, Hanford," and use the guidance pertaining to another site when their site was absent. I just don't believe that that's a normal assumption that

anyone would make.

And so I would recommend updating TBD-17 to reference that it could be applicable to other sites, or the NTS specifically, to say basically follow guidance from Appendix A or Appendix D or whatever that appendix might be, even though it's referring to a different site.

CHAIR KOTELCHUCK: If it is asking that a TBD be changed or modified in any way, it seems to me that that is not our committee's function, but that we should refer it to another subcommittee, yes?

MR. KATZ: Dave, it's okay. I mean, I think this Subcommittee is fine in making recommendations about improvements. It doesn't have to be referred.

MR. SMITH: This is Matt Smith with ORAU Team. I will point out, in Section 4 of OTIB-17, the hope was there to do additional attachments. It does say the information in the OTIB may be used for other sites with similar dosimetry systems.

And if you look at Section 3, which is a general approach, it lays out the steps one needs to take, regardless of what the DOE site is, in order to, in a sense, follow the guidelines of OTIB-17. And of course, since this is citing OTIB-17 in several places, in the end, what the dose reconstruction team did, through the use of a tool, is followed the general approach that is in Section 3 of the OTIB-17. And, in a sense, they are using Section 4 as their application of the OTIB.

In the NTS TBD, they are citing OTIB-17 as the methodology used to assign shallow dose. And within the OTIB, the general approach is given in Section 3, and that is essentially what has happened here.

CHAIR KOTELCHUCK: Response?

MS. GOGLIOTTI: From SC&A's perspective, I know that multiple of our dose reconstructors have looked at that document, OTIB-17, and have never come to the conclusion that that's the case.

Maybe training for NIOSH

reconstructors is --

MR. SMITH: Again, in Section 4, at the time it was written, this was early on in the project, the effective date is 2005, the intention was that subsequent revisions of the OTIB would include other information for major DOE sites.

It then goes on to say, however, this information may be used for other sites with similar dosimetry systems and reporting protocols, provided that you have adequate documentation.

MS. GOGLIOTTI: But that would mean that each dose reconstructor would have to be intimately familiar with dosimetry practices at their site and at other sites to draw the conclusion --

MR. SMITH: For DOE, but for NTS they would be. And the DR lead works with the tool team to get the necessary tool product in place to deal with that site. Am I off-base on that, Scott?

MR. SIEBERT: No, that would be appropriate.

MS. GOGLIOTTI: You just have to

understand, from our perspective, that's not clear.

MS. BEHLING: This is Kathy. Doesn't Section 4 state that this document provides site-specific information for Savannah River, Hanford, and the gaseous diffusion plants, and that subsequent revisions will provide site-specific information for major DOE sites.

MR. SMITH: Correct. And that has not and did not occur due to the march of these priorities on the project. And it would make sense, as I already stated, to give the DR team the option to use this approach, and the approach that's given in Section 3, to get these claims done.

Essentially, like I said already, that's what's happened here. They have used the precepts given in Section 3, which are spelled out in detail for the sites such as Savannah River in the appendices to this document.

And, you know, this has been used in this manner on many sites that are not in the attachments of OTIB-17.

CHAIR KOTELCHUCK: So, getting back to what was the original issue in the finding, I mean, was leaving out the two years proper for that site, for the PPG site or NTS? Was that proper?

MS. GOGLIOTTI: If you assume that this -- if you follow the guidance in the appendices of OTIB-17, then yes. However, we're arguing that it is not clear that NTS should follow that guidance. So we're just asking for a revision of some kind, which NIOSH has already indicated that they want to revise OTIB-17 at some point, that would indicate which sites this was applicable to.

MEMBER MUNN: This is really confusing and I'm sorry now that I didn't take the time to go back and re-read OTIB-17 all the way through, including appendices, because it's almost impossible.

I'm a Member of the NTS Work Group. It's been so long since we visited any of this, I can't even remember the last meeting that the Work Group had. And OTIB-17 is way back in forgotten history somewhere for me. And I hate to even

suggest this, because I would really like for us to address this and just take care of it and go to lunch, but I feel as though I need to go back and look at some of these documents, the original documents, rather than trying to -- I guess no clear path is jumping out at me from the questions that are being raised here.

MR. KATZ: Wanda, maybe I can help. This is Ted. I mean, to boil down what Rose is saying is, SC&A is concerned that the documentation isn't clear about the ability to do this, but there is no unclarity in terms of the NIOSH team that this is something they can do and do do.

And so it's just like the other documentation issues. It is an observation. There's a documentation concern on SC&A's part, and really only the Subcommittee needs to decide whether it thinks, based on this observation, the documentation should be clarified to be more specific to other sites or not. But there's not a lot more to this.

MS. BEHLING: I agree. This is Kathy.

In fact, I think SC&A is looking for some clarification. Let me ask the question in this way. Are there any sites that you are familiar with, or that you know of, that you wouldn't use OTIB-17 for determining this? Are there any that come to mind that you wouldn't use OTIB-17 and the Section 3 data that you just discussed? That is what SC&A is trying to determine.

MR. SMITH: I guess I don't understand. The quick answer would be, I guess, in a sense, no. I mean, we are going to use this OTIB with all of our DOE sites. I mean, the title is "Interpretation of Dosimetry Data for Assignment of Shallow Dose."

So, even if the site is not discussed in the appendices to this document, we are going to use the general approach in Section 3 of OTIB-17 to address how to assign that shallow dose for any given site.

MS. GOGLIOTTI: Well, I think the problem here is that Section 3 doesn't specifically say only assign one missed dose is there's a zero

in shallow and deep dose. But it does say that in appendices.

And here that says that you could follow Appendix A or C, but nowhere in the NTS TBD does it say "follow Appendix A and C," even though Appendix A and C are not NTS-specific documents.

CHAIR KOTELCHUCK: But I hear that the clarifying --

(Pause.)

MR. KATZ: Dave, I think we lost you.

MEMBER CLAWSON: I thought he was still thinking.

CHAIR KOTELCHUCK: Can you hear me now?

MR. KATZ: Yes.

CHAIR KOTELCHUCK: Okay, fine. I must have had mute on.

You're asking for a change in the OTIB, and the people from NIOSH and ORAU are saying that, in terms of the work priorities that they have, they were not going to make that change in the OTIB-17. It's not our responsibility to assign them work to make a change.

MR. KATZ: Right, Dave, I think the limit of the Subcommittee is to make a recommendation that you think it should be changed based on what you heard, and that's it. I mean, the NIOSH response --

CHAIR KOTELCHUCK: Right, that's what I hear. And my feeling is that I don't think that it's proper for us to do that.

I think it's absolutely proper that SC&A has raised this, and it's useful. To me, I don't set the work priorities. I don't have the information or the responsibility to make that assignment. That's an internal administrative --

MR. KATZ: Right. Dave, everything that the Board does is advice. It's just advice.

CHAIR KOTELCHUCK: Well, true.

MEMBER CLAWSON: Dave, this is Brad. Being the Work Group Chair for NTS, I find an interest in this. And we do have a Working Group coming up, I believe it's January 5th, that we can discuss this and look into this.

But being a Work Group Chair, I do find

great interest in this, because as we go through this process, one of our questions is how is this going to be implemented in the dose reconstruction.

So, I think, myself, the Work Group here, the Subcommittee has done what they should and now it falls back to me to be able to look at this and make sure that it is being implemented properly.

CHAIR KOTELCHUCK: Okay.

MEMBER MUNN: Thank you, Brad.

CHAIR KOTELCHUCK: Good, thank you, yes. So maybe we hold this in abeyance and you will report back at our next meeting?

MEMBER CLAWSON: I can do that, or have you guys -- myself, I feel that we have actually already addressed in the Subcommittee. Now, it is up to me and to the Work Group to be able to have SC&A and NIOSH be able to sit down and review what the issue and the problem was here, because this is one of our tasks, too, as a Work Group, is to assure how these things are being implemented. That's one of our big questions of how are you going

to implement this when you do a dose reconstruction?

So, I think that, really, my personal feeling is that it can be closed and just allow the Work Group to be able to deal with it at a little bit higher level.

CHAIR KOTELCHUCK: That sounds fine. That is fine.

MR. KATZ: And so we are closing it as an observation.

CHAIR KOTELCHUCK: So, I think we can -- pardon me?

MR. KATZ: And I assume we are closing it as an observation, right?

MEMBER MUNN: Yes.

MEMBER CLAWSON: Yes.

CHAIR KOTELCHUCK: Okay.

MEMBER CLAWSON: What I would request is that maybe if Rose just kind of sent to me -- you know, I've got everything in this, but to be able bring all of this to the NTS, you know, this finding and this question, because SC&A is, we are

getting ready to go over Site Profile issues and so forth like that. So, I would just like kind of a summary, if you could, Rose, or Kathy. You guys always write it to me in a way that I understand it so much better. So, if I could just have something like that, it would help me out.

MS. GOGLIOTTI: Yeah, absolutely, I can send you an email.

CHAIR KOTELCHUCK: Very good.

MEMBER CLAWSON: Thank you.

CHAIR KOTELCHUCK: Very good. Okay.

MEMBER MUNN: I think that would be helpful, because in the Work Group really and truly it appears that the only question we have here is whether the document, as it currently stands, actually provides the kind of instruction -- clearly, NIOSH feels that the document does provide an adequate direction to address this properly. And it looks like that is the only real question.

MEMBER CLAWSON: Right. And as a Work Group, we've looked at and we've asked questions. I feel like this has been covered, and it sounds

like there is a little bit of question on this. So we can take it up at that level.

CHAIR KOTELCHUCK: Very good.

MEMBER CLAWSON: And I just want to make sure that John Stiver and them are aware of this, because this may not be into the matrix part of it, but we need to discuss this at the Work Group level.

CHAIR KOTELCHUCK: Good. Okay, fine. So we'll close it as an observation now.

MEMBER CLAWSON: Yes.

CHAIR KOTELCHUCK: Well, thank you. So, it's about a quarter after 12, a little over.

So, we finished discussion on Item 1. It took us a little more time than I had hoped, perhaps, but we've resolved that.

I think, rather than, since David has to leave in about a few minutes, that we should perhaps break for lunch now and come back and continue the category 1 cases on our expedited process. And then we'll begin discussion on improving consistency. And I'm not clear what we

will come to in terms -- whether we will come to the blind cases.

So, I'd like to -- it is about 20 after 12. So, could we take a lunch or breakfast break, as the case may be, until 1:20 Eastern Standard Time?

MR. KATZ: Sounds good.

CHAIR KOTELCHUCK: Okay, very good. Thank you all. David, thank you for being here for as long as you have. Okay, see you folks at 1:20.

MR. KATZ: See you in an hour.

(Whereupon, the above-entitled matter went off the record at 12:19 p.m. and resumed at 1:20 p.m.)

Continue Category 1 Cases from Sets 18-18 (approx. 15 cases)

CHAIR KOTELCHUCK: Okay, then let us begin at 1:20 p.m.

Okay, on our screen we are starting off with the expedited cases, category 1. Apparently, as I see it, there are 13 cases to go. No, did that just change? In progress, four, zero -- gee, I

thought I saw --

MS. GOGLIOTTI: I did update this over the lunch break.

CHAIR KOTELCHUCK: Okay, very good. Because I looked it over yesterday and I have it on my other machine. I'm getting ready to -- very good.

MS. GOGLIOTTI: I just updated this to reflect what we did this morning.

CHAIR KOTELCHUCK: Oh, okay, yes. Yes, that's great.

So we only have four items left in Category 1. Is that correct?

MS. GOGLIOTTI: Well, this is actually not Category 1. This is just showing the remaining findings and observations left in Sets 14 through 18.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: So, you will see, as of this moment, we have about 23 percent of issues remaining.

CHAIR KOTELCHUCK: Oh, yes. So, all

the rest are Category 2 after today?

MS. GOGLIOTTI: No, no, no, no. Category 1.

CHAIR KOTELCHUCK: We are going to finish Category 1 today, are we not?

MS. GOGLIOTTI: We will finish Category 1 for the DCAS sites.

CHAIR KOTELCHUCK: Right.

MS. GOGLIOTTI: We have not touched on the remaining AWE site matrix yet.

CHAIR KOTELCHUCK: Oh, okay.

MS. GOGLIOTTI: And that's really the only matrix that we have remaining.

CHAIR KOTELCHUCK: Yeah.

MS. GOGLIOTTI: But after today we will see if the committee is still happy with using this Category 1 and 2, approach and I can apply that to the remaining.

CHAIR KOTELCHUCK: Very good.

MS. GOGLIOTTI: I just wanted to get that out there to show that we are making progress.

CHAIR KOTELCHUCK: Absolutely.

MS. GOGLIOTTI: And after today, including the remaining 19 and 21st set things, we will have about 150 issues left.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: So, that's about three meetings' worth of work, and then we will be entirely caught up on the findings.

MEMBER MUNN: Oh, that's marvelous.

CHAIR KOTELCHUCK: Wonderful. Wonderful. Okay, so, shall we begin?

MS. GOGLIOTTI: Okay. Well, we left off here, and I just highlighted it so we know exactly where to start.

CHAIR KOTELCHUCK: And thank you for that.

MS. GOGLIOTTI: We've done everything above that. I know it is kind of confusing when you have hundreds of lines in here.

Okay, so the first case is Tab 399, it's a Sandia case. And this is Observation 1. And this is an interesting case for us because when NIOSH did their dose reconstruction, they took into

account the CATI report, which said that the EE had worked at several sites that were not DOL confirmed. And so NIOSH properly went through and contacted all the sites and requested additional information that the EE had provided. And they didn't hear anything back.

So, in October of 2010, they went ahead without that information, not having heard anything. And then after that, in December, a lot of information came in. So, after the dose reconstruction was completed, several site visitor data requests from Lawrence Livermore and Pantex came in. And the DR was not revised to incorporate that.

And according to NIOSH, all this additional information was evaluated under a PAD, the post-approval dosimetry evaluation. And it was determined that it wasn't necessary to revise the case based on this information.

CHAIR KOTELCHUCK: Okay. So, that's an observation. That's fine.

(Simultaneous speaking.)

MS. GOGLIOTTI: -- in this case where information came in after the fact.

CHAIR KOTELCHUCK: Right.

MS. GOGLIOTTI: And from our perspective, we pointed it out that, yes, it became available after. And that's really all we can do. We can't fault NIOSH for that.

CHAIR KOTELCHUCK: Right. I think this is a clear-cut observation. I don't see anything to discuss, unless somebody else from the --

MS. GOGLIOTTI: SC&A has one follow-up question.

CHAIR KOTELCHUCK: Okay. A little louder, please, by the way.

MS. GOGLIOTTI: Is the PAD documented somewhere that SC&A could see that a PAD had occurred?

MR. CALHOUN: Yeah, this is Grady. We have a single sheet for every PAD that's done and there has been many, many, many thousands of them.

MS. GOGLIOTTI: And would that be in

the files on NOCTS?

MR. CALHOUN: No, they're not on NOCTS. They are in separate folders, but I can -- do you want to see the one for this case?

MS. GOGLIOTTI: Just when we come across issues like this, to know whether or not it had gone through a PAD would be helpful for our dose reconstructors.

CHAIR KOTELCHUCK: So, you'll give her information to have access?

MR. CALHOUN: Yeah, anytime she needs one of those, I can get her one or we can see where we are. Right now, the majority of them are sitting out on my actual drive that's for me only. But I can let you know where those are, or at least send them to you as you need them.

MS. GOGLIOTTI: Okay, and just for my personal knowledge, the Subcommittee is okay with us requesting that information?

CHAIR KOTELCHUCK: Oh, the Subcommittee is perfectly okay. Good.

MS. GOGLIOTTI: Okay, I don't want to

break any chain of command there.

CHAIR KOTELCHUCK: Oh, no, no. Alright. So, I propose that we go on to the next one.

MS. GOGLIOTTI: All of the 399 observations are along the same lines. There was additional dosimetry records that would warrant additional missed or measured dose, internal dose records that should have been accounted for, and coworker dose that would have been triggered by the unmonitored dosimetry. But I would recommend that we just close all of these at once.

CHAIR KOTELCHUCK: Yeah, agreed. Any concerns?

MEMBER MUNN: They should all be the same.

CHAIR KOTELCHUCK: Right, they should. It's almost not worth going over. Well, formally, we do that for every observation. So, do number 4, if you would, and then we'll approve.

MS. GOGLIOTTI: The rest of them? Well, the next one would be 2. And this one there

were eight additional dosimetry records that were received after the fact. And they were all zeros with no missed doses assigned to them.

CHAIR KOTELCHUCK: Okay.

MEMBER MUNN: That's been done.

CHAIR KOTELCHUCK: Done, approved.

MS. GOGLIOTTI: Okay. And number 3, similar, more no missed doses assigned to the dosimetry records from Lawrence Livermore.

CHAIR KOTELCHUCK: Good.

MS. GOGLIOTTI: Number 4 is -- let's see. When we began reviewing the case, Lawrence Livermore records were available that would trigger potential intakes for internal dose but were not assigned.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: And number 5 has to do with coworker dose. Unmonitored periods would be added by the dosimetry records, and that added about 0.126. And the PoC in this case was 22.5. That low of a dose isn't going to impact the compensation for this case.

CHAIR KOTELCHUCK: Okay, good. And let's go on to the next.

MS. GOGLIOTTI: Okay, the next one is Tab 368, the Spencer Chemical case, Finding 1. And the finding says that there was a failure to demonstrate that default uranium inhalation rates were appropriately bounding. And NIOSH came back and said, essentially, the rates that we had cited in our review were actually only applicable to outside inhalation, and this was actually indoors.

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: NIOSH had indicated that the inhalation rates that we had cited in our dose reconstruction review were only applicable to outdoors and this was an indoor worker. And based on that, we believe that their judgment was sound and we do agree with their approach.

CHAIR KOTELCHUCK: Okay. Discussion? One sec. Okay. The question is, should this be --looking at this again just to see whether it should be an observation.

MR. KATZ: I guess, was the

documentation not explicit about this, Rose?

MS. GOGLIOTTI: It said TBD-6000, but there was some confusion, I believe.

CHAIR KOTELCHUCK: So, it's a professional judgment, right?

MS. GOGLIOTTI: Yes, if you wanted to reduce it to an observation, we wouldn't fight it.

CHAIR KOTELCHUCK: Yeah, I think it is an observation. What do others think?

MEMBER MUNN: Yes, I think so. I can't see any way that one could determine any further information than we already have.

CHAIR KOTELCHUCK: Right. Right.

MEMBER BEACH: I'm okay with this being an observation.

CHAIR KOTELCHUCK: Okay.

MEMBER CLAWSON: This is Brad. I'm okay with an observation.

CHAIR KOTELCHUCK: Good. So, we'll approve this as an observation. And thank you.

MS. GOGLIOTTI: Okay. Same case --

CHAIR KOTELCHUCK: And I am

particularly sensitive to the remark I made this morning, and I really mean it, that I'm not going to -- everything you find, we're very glad you find it, however we categorize it. That's your job.

Okay, next one.

MS. GOGLIOTTI: Okay, Finding 2 here, same case, says differences in guidance provided in Table 5.2 of TBD-6000, which references environmental dose, and Section 7.15 should be reconciled.

NIOSH pointed out in their response that Section 5.2 actually refers to environmental intakes while Section 7.15 refers to intakes from formerly operational areas during residual periods, and so that's why the guidance doesn't seem to correlate well. But they are actually referring to different intakes.

CHAIR KOTELCHUCK: Right. Okay.

MS. GOGLIOTTI: And so based on that, we agree that their determination is correct.

CHAIR KOTELCHUCK: Right, in which case, again, observation.

MS. GOGLIOTTI: Okay.

CHAIR KOTELCHUCK: Okay, observation. Any comments? Good.

Let's go on.

MS. GOGLIOTTI: Okay, 411.

CHAIR KOTELCHUCK: Right.

MS. GOGLIOTTI: This is Finding 1. And the finding says that NIOSH did not use the appropriate organ dose correction factors. And here, disagreement stems from actually a mislabeling of information in the tables in TBD-6000. The tables lists the unit as milli-R per year. And it actually means millirem per year.

CHAIR KOTELCHUCK: That is, the capital R suggests roentgens.

MS. GOGLIOTTI: Correct.

CHAIR KOTELCHUCK: Right. Okay, good.

MS. GOGLIOTTI: And so we would just suggest that they modify that table in the next TBD revision to reflect the correct unit.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: Another observation.

CHAIR KOTELCHUCK: Yeah, correct. Observation.

MS. GOGLIOTTI: Typically, don't we leave it as a finding when --

CHAIR KOTELCHUCK: Pardon? A little louder, please.

MS. GOGLIOTTI: Typically, don't we leave things as findings when we identify a problem with the actual TBDs?

MR. KATZ: Not when it's just a documentation but it's being used correctly.

MS. GOGLIOTTI: Okay.

MR. KATZ: That's a documentation issue.

CHAIR KOTELCHUCK: Yeah, I think you are correct.

So, approved as an observation.

MS. GOGLIOTTI: Alright. And the next one is Tab 341, which is a Westinghouse case, Finding 1. The finding states that NIOSH did not assign complete doses for the years 1971 and 1979.

And NIOSH agreed.

CHAIR KOTELCHUCK: Alright, and that's certainly a finding. NIOSH agreed that it should have done this. And when it corrected it, there was no impact on the final decision. But it's certainly a finding.

Any objection or any comment?

Okay, no. Let's go on to Finding 2.

MS. GOGLIOTTI: Okay, same case. Finding 2 states that NIOSH did not assign a recorded zero for missed dose for the year 1975. And NIOSH agrees that there should have been an additional zero for that year.

CHAIR KOTELCHUCK: Okay. Again, a finding. And by the way, both of those are QAs, right?

MS. GOGLIOTTI: Yes.

CHAIR KOTELCHUCK: Okay. Item 3 we'll approve.

MS. GOGLIOTTI: Okay, Finding 3, NIOSH used the one-time uncertainty for MDA instead of three times the uncertainty. And NIOSH has agreed

also that they should have --

CHAIR KOTELCHUCK: Alright, fine. Good.

MS. GOGLIOTTI: Finding No. 4 states that NIOSH's ingestion values were not substantiated. And NIOSH did agree with us. And this has to do with uranium intake.

CHAIR KOTELCHUCK: So, that's -- the ingestion value was not substantiated. And then agrees that no ingestion. Was ingestion applied by NIOSH?

MS. GOGLIOTTI: Yes, NIOSH applied ingestion.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: I believe there was an urinalysis that was used in IMBA to calculate an inhalation, but there wasn't really a basis for assuming.

CHAIR KOTELCHUCK: Okay, so that seems to be a finding. Again, is there any -- are there any comments or questions?

MEMBER CLAWSON: This is Brad. Not

me.

CHAIR KOTELCHUCK: Okay. Hearing no others, let's consider that approved. And let's go on to 434.3.

MS. GOGLIOTTI: And this is a Westinghouse case. And the finding says that the modeled inhalation intake quantities appear to be in error.

And here what happened is the CADW entry failed to be objective for the 365-day exposure period. In the TBD, it lists, I believe, 210 days, but it needs to be entered into the CADW as 365. And that was not done, which caused an overestimate in dose by a factor of 1.46.

And NIOSH has actually corrected that to limit the error in the future.

CHAIR KOTELCHUCK: What about this case itself? Did that affect the decision?

MS. GOGLIOTTI: It resulted in an overestimate. So, they assigned more dose than should have been assigned. And the PoC was already below 50 percent, so it didn't --

CHAIR KOTELCHUCK: Oh, okay. So, it would have reduced it further below 50 percent, and, therefore, in the noncompensable category.

MS. GOGLIOTTI: Correct.

CHAIR KOTELCHUCK: Okay. Any comments, folks? Hearing none, we do approve.

MS. GOGLIOTTI: Okay. The next is Tab 369. It's a W.R. Grace case. And Finding 1 -- and we've seen these numerous times before --basically, the TBD said that the case didn't qualify as part of the SEC even though it's a bladder cancer, when in fact it did qualify for the SEC. And the dose reconstruction was done only to determine medical benefits. And that was just a textual error.

NIOSH has since corrected the text and modified so it's clear that it's just a partial DR and the case did qualify.

CHAIR KOTELCHUCK: Wait a minute. Bladder cancer is one of the 22 compensable cancers, is it not?

MS. GOGLIOTTI: Correct.

CHAIR KOTELCHUCK: Correct. So --

MS. GOGLIOTTI: This is just text that appeared, boilerplate text that NIOSH was inserting into the dose reconstruction that said that the case didn't qualify or didn't meet the criteria for inclusion --

CHAIR KOTELCHUCK: Okay, so this is --

MS. GOGLIOTTI: -- when it actually did meet the criteria. It's simply a --

CHAIR KOTELCHUCK: This is the report. Then this is the issue with the report.

MS. GOGLIOTTI: Correct.

CHAIR KOTELCHUCK: Which is to say, an observation.

MS. GOGLIOTTI: Yes.

CHAIR KOTELCHUCK: Okay. Any comment on this, approving this as an observation?

MEMBER BEACH: None here, Dave.

CHAIR KOTELCHUCK: Okay. Alright, then let's approve and go on.

MS. GOGLIOTTI: Okay, the same case, Finding 2 says that NIOSH used a 1976 fecal result

as a urinalysis result in a modeling. NIOSH agrees that the data was incorrectly used. And when they revisited the case and correctly used the results, in increased the dose by a negligible amount.

CHAIR KOTELCHUCK: Okay. Well, this is a -- this would be a finding.

MR. KATZ: Right.

CHAIR KOTELCHUCK: The line in Column I, it's obviously regarding measurement, not physical -- it has a funny quality, if you interpret this in physical terms, rather than in measurement terms. But that is the way it is. It's perfectly proper.

Okay. So, I think we should just approve this as a finding. And I don't know how you do it, but that would now be the first finding, since the original first finding was an observation.

(Simultaneous speaking.)

MS. GOGLIOTTI: -- the same --

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: We do leave the finding

numbers the same and I just change it my record.

CHAIR KOTELCHUCK: Oh, okay.

MS. GOGLIOTTI: Because otherwise, it is very confusing when the numbers change.

CHAIR KOTELCHUCK: Oh, yes. Okay, I understand that and why it's done that way. That's fine.

Does that complete it?

MS. GOGLIOTTI: That's all of the Type 1 findings in this matrix.

CHAIR KOTELCHUCK: Okay, good.

Before we go on, since this is the end of the Category 1 cases and you asked, do we approve continuation of this expedited processing, I think it has worked well so far. I, personally, think we should continue with it.

What do other Members think?

MEMBER MUNN: Well, I definitely think so, says Wanda. But before we completely leave the W.R. Grace item, the typo -- I hate to even mention it.

MS. GOGLIOTTI: Yeah, that was my

fault. I'm sorry.

MEMBER MUNN: Yeah, that's a minor thing.

CHAIR KOTELCHUCK: Oh, yes, thank you.

MEMBER MUNN: But nevertheless, yes, this, from my perspective, is working very, very smoothly. It's extremely helpful to me.

CHAIR KOTELCHUCK: How about other folks?

MEMBER BEACH: I agree. I like this method.

MEMBER POSTON: I agree.

MEMBER CLAWSON: I agree.

CHAIR KOTELCHUCK: Good. Well, we all agree. So, I would say, just as an overall to you, to the SC&A folks, that I don't consider this -- well, put it this way. Our approval will become definitive, I hope, after we go to and do the Category 2 cases. We've done the easy cases, and they went very well and this was a very good procedure. What happens when we get to Category 2 may impact our overall sense of whether we're

doing the right thing.

We're certainly doing the right thing for Category 1. That's my opinion, anyway.

MS. GOGLIOTTI: Well, the Category 2s should proceed just the same way we were doing this morning with the --

CHAIR KOTELCHUCK: Yeah, right.

MS. GOGLIOTTI: So, I don't see that being a problem. For the next meeting, though, we only have -- we have one matrix remaining in the 14 through 18th set, which is the remaining AWE cases.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: There are 44 findings there, and an additional maybe seven findings from the DCAS site. So, I will extend this process through the remaining AWE sites.

CHAIR KOTELCHUCK: Mm-hm.

MS. GOGLIOTTI: And actually, we're to a point now where we are caught up in NIOSH responses. So, I just want to remind NIOSH that we will need responses for the 19th and 21st sets'

matrices soon.

MR. KATZ: Can I suggest, though, in addition to that for the next meeting, I think it'll be time, right, you're planning to take on some Type 2, because we need experience on that sooner than later.

MS. GOGLIOTTI: Yes, I'd recommend that we start with those in the next meeting.

MR. KATZ: Yes, that's great. Okay.

CHAIR KOTELCHUCK: Yeah, sounds good to me. Okay, well, thank you. And this has been very good.

So, we are now on to Item 3. Now, I ordered this discussion such that we would talk about the report on consistency in dose reconstruction next. And we may not get to the blind case reviews. I don't know.

Do folks go along with that? Or maybe we could change and we could do the blind case reviews now. The reason I put the consistency in 3 is that we have probably six months or so in which to report back to the Board on improving

consistency. And it seems to me we will probably have to have several discussions. And since there is a time frame on that, I thought we would go with 3 first.

MR. KATZ: Dave, so, I have a suggestion.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: I actually think it would be helpful, from an administrative standpoint, for me, if we proceeded with the blinds first and then, if we run short of time on consistency, it's not so much of a concern to me.

The reason I say that is because we are trying to get through these backlogs. I mean, the blinds aren't exactly backlogged but they are part of the load -- they're in our way, too -- so that we can get back to initiating additional case reviews.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: So, to me, the consistency discussion, certainly it's not the most important, but really, it will relate to new cases that we

assign, not to cases that we are already looking at so much.

CHAIR KOTELCHUCK: That's correct.

MR. KATZ: So, to me, it's a bigger priority to get as much of the backlog cleared as soon as possible because that means we can get new cases in.

CHAIR KOTELCHUCK: Well, that's a good argument. Administratively -- and I noted that we yesterday received the blinds from set 23.

MR. KATZ: Right.

CHAIR KOTELCHUCK: So, if that is helpful, then I am more than open to doing the blind case reviews next. How about how do other Members feel? Okay?

MEMBER MUNN: This is Wanda. I certainly agree with Ted has to say, for yet another reason as well. Our discussion and deliberation with respect to consistency is one that we can actually do, to some degree, offline. If those of us who are looking at it feel strongly about something and would like to add or create specific

direction for the discussion, we can do so by communication with the entire Subcommittee through email.

CHAIR KOTELCHUCK: That's true.

MEMBER MUNN: And we just simply can't do that with the cases that we have to do with the full committee.

CHAIR KOTELCHUCK: Sure. Good. Further argument, further support for going on with the blind cases for Set 22.

So, any objection? Okay, let's do the blind case reviews.

MS. GOGLIOTTI: Okay. Kathy, do you have a preference on which one goes first?

MS. BEHLING: No, not at all. The one I was going to do, which was the SNL case, Sandia National Lab, is going to be very quick.

CHAIR KOTELCHUCK: Could I suggest something? Before we do that, let's all take a look at the table again, just to refresh ourselves. If you'll show us the table, and then we will go on to the SNL.

MS. GOGLIOTTI: Sure.

MS. BEHLING: Do you have that available, Rose?

MS. GOGLIOTTI: Yes, I just pulled it up.

CHAIR KOTELCHUCK: Yes, there it is. And the first scan through, as I'm sure all of us noticed, was that the results are consistent with SC&A and NIOSH in terms of compensability. In particular, the two cases were above 50 percent, according to NIOSH, and they are still, according to SC&A.

And also, NIOSH, for those that were not compensable, three out of the four from NIOSH had a greater PoC than SC&A did, which, again, might reflect NIOSH's -- the importance to NIOSH, and to all of us, of being -- deciding in favor -- when uncertain deciding in favor of the claimant, being claimant-favorable.

So, any comments on the table or anything anyone wants to say before we begin going over the individual cases?

MEMBER MUNN: No, nothing more than to just comment, again, that this is enormously helpful to be able to see this kind of comparison.

Blind Case Reviews from Set 22

CHAIR KOTELCHUCK: It sure is. And by the way, now we're into cases, I believe -- is this the 20th through the 26th case, the blind case that we have looked at? Or is this 14 through 20?

MS. GOGLIOTTI: I believe this is 20 through 26.

CHAIR KOTELCHUCK: I think it is, yes, which is great. We still, just to comment, we still have the one case from Allied Chemical & Dye that has to be resolved.

MS. GOGLIOTTI: I believe we've resolved that case.

CHAIR KOTELCHUCK: Have we? That was not -- I mean, in the blind review and the table that we are sending in, it still says referred.

MS. GOGLIOTTI: Well, I believe we did that after, while the letter was still in draft. It didn't make sense to keep updating the letter.

CHAIR KOTELCHUCK: Yes, I understand. Okay. And has that ever -- that has not come before the Committee. So -- and if it is decided --

MS. GOGLIOTTI: Well, the Subcommittee discussed it. I believe that was in the Spring meeting, maybe a March meeting or April.

CHAIR KOTELCHUCK: Do other -- I don't recall that and I don't remember seeing it in the transcript. Do other Committee Members? Did we discussed Allied Chemical & Dye as a blind case?

MEMBER MUNN: We've discussed Allied Chemical a lot. I haven't looked at the --

MR. KATZ: Is that a John Mauro site?

MS. GOGLIOTTI: Yes.

MEMBER BEACH: I thought we had referred it to the Work Group.

CHAIR KOTELCHUCK: That's what I thought.

MS. BEHLING: This is Kathy. I thought I had added a summary row to each of the blind cases, and I think I even went back into the transcripts to confirm that we had closed that out.

But I have to tell you, I maybe should look at that again.

CHAIR KOTELCHUCK: That would be good. What we'll do is we have our six cases. That's fine. Next time, if you would bring that -- if you'd check it out and then next time report back to us. And if we have not discussed it as a Subcommittee, we should do that and put it on the agenda.

MS. BEHLING: Yeah, I do know that it was discussed. I just didn't know if there were any outstanding issues associated with it, because it was a long discussion. I think we discussed it at several meetings, but I will confirm that.

CHAIR KOTELCHUCK: Well, we discussed the issue, and then later we discussed it at great length. But, eventually, Dr. Melius suggested that we had not -- it had to go to the Work Group or another Subcommittee, and then it had to be reconsidered and then come back to us. And I want to make sure it came back.

So, anyway, folks will check this and

we will have the answer next time, or you'll email me if we have not gone over and approved it as a Subcommittee.

MS. BEHLING: Yes, I will.

CHAIR KOTELCHUCK: Okay. Alright, good. And if it was not approved, we will put it on the agenda for the next meeting.

Alright, let's go, and did I hear you say you wanted discuss the SNL case first?

MS. BEHLING: I can do that, if everyone agrees. It's just because I think that this will be rather brief.

CHAIR KOTELCHUCK: Good.

Sandia National Laboratories

MS. BEHLING: I know I usually like to talk, but, unfortunately, this one isn't going to allow me to do that.

(Laughter.)

CHAIR KOTELCHUCK: Okay.

MS. BEHLING: But, anyway, this particular blind case, the Energy Employee obviously worked at Sandia National Lab in

Albuquerque. And there were [identifying information redacted] cancers. And if you look at -- do you have that case up on Live Meeting, Rose?

MS. GOGLIOTTI: Yes, it's pulled up on the screen.

MS. BEHLING: Okay, for some reason, I'm still seeing the agenda. That's fine. I'll go through this. And I'm going to be brief and be careful about what I say here, but this particular case, as I said, there were [identifying information redacted] cancers. And if we look at Table 1-2 on page 7, it shows you a comparison of the NIOSH and the SC&A doses for each of the various categories.

And as you can see, we were nearly identical with the doses. And both NIOSH and SC&A had a combined PoC of greater than 50 percent and would have compensated this case.

If we move on, then, to page 8 and to our comparison table of data and assumptions, Table 2-1, here, again, NIOSH and SC&A made all the same assumptions. They used the DOE records. They

used all of the same guidance documents.

And one of the things that Ted had recommended, and we will do in the future, which will certainly make things easier for the reader, when NIOSH and SC&A agree and have done exactly the same approach, or used the same approach, in the SC&A column we will put in there "no difference" or "same assumptions," or something along those lines, so that it is much easier for you to see where there are differences.

CHAIR KOTELCHUCK: Excellent.

MS. BEHLING: So, if you go through the table, both NIOSH and SC&A, as I said, used all the same assumptions, used the same guidance documents. The only thing that was different is, under the occupational environmental dose, NIOSH assumed a DCF, an isotropic DCF that was associated with the exposure DCF, where SC&A used the isotropic ambient dose equivalent DCF. And that resulted in NIOSH calculating a little bit higher dose than SC&A.

The only other thing that was different

in this is, for some, for one of the cancers, NIOSH determined the uncertainty based on a Monte Carlo approach. And so the data then was entered, in some cases as log-normal and in cases as a Weibull distribution, with a little bit different, when it's a log-normal, a little bit different GSD value than SC&A. Typically, we use the mode of the DCF value and enter that in as a log-normal distribution with a GSD of 1.52 for this type of doses.

So, I can go through each of these categories, but if you've read through the report, there really were no differences. Everything was very consistent.

CHAIR KOTELCHUCK: Okay. I don't know that we need to go through it in any more detail. What do other Members think?

MR. SIEBERT: This is Scott. I just want to clarify the difference on the DCFs in environmental.

MS. BEHLING: Okay. Did I misspeak?

MR. SIEBERT: No, no, you were exactly

right as to what the differences were. I just want to point out the reason we did it the way we did it is based in Procedure-60, Section 6.3 for best estimates. It specifically directs you which DCF to use in that specific circumstance.

MS. BEHLING: Okay, thank you.

CHAIR KOTELCHUCK: Okay, good. Alright, I think my own feeling would be that we should approve as this discussion stands. Do I hear other suggestions?

MEMBER MUNN: I think that's entirely appropriate. We've seen the document. We've seen the comparison. Kathy has led by the hand. And I see nothing for us to discuss, other than to say good job, again.

CHAIR KOTELCHUCK: Good.

MS. BEHLING: Thank you. One other question, while I am thinking about it. When we get through the other two blinds, the discussion of those today, provided there's no outstanding issues, I assume that you do want me to continue to update this table with a comments or a summary

type of statement that discusses where there were some differences so that we can finalize the 22nd set blind after this meeting.

CHAIR KOTELCHUCK: Yes.

MS. BEHLING: Okay.

MEMBER MUNN: Always helpful to have that on what turns out to be a historic document, if it's referenced again.

MS. BEHLING: Okay, very good. Thank you.

CHAIR KOTELCHUCK: Yes, good. Alright, what is the next one that you'd like to go through?

MS. GOGLIOTTI: How about Grand Junction?

CHAIR KOTELCHUCK: Grand Junction, alright.

Grand Junction

DR. BUCHANAN: Okay, that's mine. This is Ron Buchanan.

And the blind on this one was for the dose reconstruction for an EE who worked at the

Grand Junction operation office in Grand Junction, Colorado. In most of the period, in the 1980s, was a janitor and laborer. I need to say that because that play into the dose assigned. They had a number of skin cancers in the 2000s.

The EE had no internal dosing and very limited external dosimetry recorded. If you look at Table 11-1, we see that we had very similar dose assignments, identical for the recorded. There was a little bit of difference in the missed dose, and we'll discuss that.

Unmonitored dose was very similar for all categories. Internal dose was similar; very small, of course, for skin cancers. Total doses were very similar. And the PoCs were very similar at around 48 percent.

CHAIR KOTELCHUCK: Right.

DR. BUCHANAN: And so we see that if we compare the methods used in Table 2-1, they are the same. There's a slight bit of difference in the unmonitored and modeled photon dose there, that the NIOSH dose reconstructor used supervisory data and

we used the interpolation of the data from 1980 and 1984. They were similar but slightly different values, but it was nice to see that using two different methods came out to similar values.

And the only other difference with the internal dose was that NIOSH used some values based on tables from 1980 to 1990 and assigned a log-normal and constant distribution. SC&A based theirs on maximum permissible concentrations and assigned dose only after the SEC expired in '85. And so we assigned it only for '86 through '90 and assigned it as a log-normal distribution. And so those are the two major differences.

On the recorded dose, we see, on page 11 of my report anyway, at Section 2.1.1, no differences. So I don't really need to go through that. We just used the recorded dose and appropriate values.

Missed dose, there were some differences there. And we both assigned nine missed doses. SC&A assigned one shallow missed dose and NIOSH assigned two shallow missed doses.

And you'll see that the missed photon doses, the difference, we both assigned nine, but we used the LOD of 0.02 millirem that's given in the Grand Junction guidance, and came out, of course, we have outlined there in Table 2-2, as 0.09 rem.

NIOSH used the same nine missed doses, but it used an LOD of 50 millirem. And, of course, we both used a dose conversion factor of one for skin cancer. And, of course, arrived at a larger dose because of the larger LOD value they used of 0.225 rem. And this was outlined or summarized in Table 2-3.

And so we find that we used the LOD of 20 millirem, and they used the LOD of 50 millirem, and that was the difference in the assigned doses there, the missed dose.

The missed dose, missed shallow dose, we both applied --

MR. SIEBERT: I'm sorry, Ron?

DR. BUCHANAN: Yes?

MR. SIEBERT: This is Scott. I just

want to clarify, since we are hitting a point where there is a difference.

We agree that the 20 millirem LOD is what should have been used. The dose reconstructor made an error in this issue and used the wrong LOD. So, I just want to point out that was the difference.

DR. BUCHANAN: Okay, thank you for clarifying that.

And so that brings us up to missed shallow dose and we both applied a clothing attenuation factor of 0.855, because it was on their clothing, a dose conversion factor of one and assigned it as a 30 to 250 keV missed shallow dose. We both assigned it that way. However, again, the LOD value of 20 versus 50 comes into play. And so they assigned a greater dose than we did. We assigned 9 millirem. They assigned 43 millirem. And we both assigned it with a log-normal distribution. So, that, again, same reason for the difference there.

Okay, we have unmonitored photon dose.

This is Section 2.1.3. There was periods when the worker was not monitored in the early 1980s, and there were some gaps in the late 1980s, the second half of the 1980s. And so we used the -- Grand Junction doesn't have a TBD per se. They have a dose reconstruction template. And so what we -- SC&A used somewhat of a different approach, as outlined there, for 1980 to 1985, looked at some of the workers data and used a workers data plus a missed dose, came out with 80 millirem per year. And the value for 1985 in Grand Junction was given as 90 millirem.

So, this is what SC&A thought those were fairly close and used those values and assigned it for about five years and assigned a total of 2.433 rem.

For the gap period, SC&A used, again, the values given in the template and had a total gap there in the later 1980s of two years where the person didn't appear to be monitored or the records weren't available or whatever. And so they assigned 0.134 rem there in that gap period in the

later '80s.

Now, looking at NIOSH, they assigned an unmonitored period and they used the Grand Junction template and assigned it as an operator-laborer category and they assigned a total dose of 2.529 rem. And so the doses were very close. When you add them up, we assigned a total of 2.567 for the whole period and they assigned 2.529. So, using two different methods, we came up with very similar doses.

Now, Section 2.1.4, unmonitored shallow dose, in this case SC&A assigned one missed dose. NIOSH assigned two. And we both assigned them as greater than 14 keV electrons because it was skin cancer. And so it came out that we assigned 3.292 and they assigned 3.244 rem. And so there's a slight difference, and this is discussed in the previous sections for why there were slight differences there.

Okay, so, neutron dose. Okay, the worker was not -- this is Section 2.1.5 -- was not monitored for neutrons. And so, according to the

Grand Junction template, it has your assigned neutron dose during this period and with a weighting factor of 9.91. And we did that and came out with very close doses of 1.292 and 1.286. And mainly, this dose difference was due to how you calculate fractions of the year and rounding as you put them in the IREP table. So, we both assigned those as constant distribution. So, there is very little difference there.

Section 2.1.6 is an occupational medical dose. And since the worker did not work at a covered facility that did it onsite, it did it offsite, so it wasn't assigned by either SC&A or NIOSH.

And Section 2.2 is occupational internal dose. Now, this is where we kind of went in different paths to get to the same approximate answer.

There was no internal bioassay dosimetry data, and so NIOSH and SC&A, as described here, SC&A assigned internal intake from uranium, and then in the next section from thorium, and

mainly used -- we assigned internal dose only after the SEC expired in '85. So, it was '86 through '90.

And so we assigned that based on maximum permissible concentrations, and it shows the calculations there how we derived the intake. That would be the maximum. The estimate on the MPCs were exceeded and we applied the fraction of the uranium for inhalation to that, come up with one times ten to the minus three microcuries per year. And also could have been ingestion. We followed OTIB-9, calculated that intake.

And we used these intakes, as shown in Table 2-4 in the Chronic Annual Dose Workbook, and to derive the internal uranium dose to the skin, and found that Type F provided the largest dose, and that was 4 millirem. Of course, very low for skin doses.

And then we move down to the next page. We looked at the thorium. And then on the thorium, we used the same method. We looked at the MPCs and there had been some time studies, time-weighted average studies done. And so we used that

time-weighted value of 307 MPC hours, instead of the 520 for the uranium that we had used before which should be the maximum. And we did the same thing as we did for uranium and calculated the intake.

And Table 2-4 there lists the total uranium, radon -- radium -- uranium, radium, and thorium intakes. And this, then, led to an assignment of 0.042 rem for Type M thorium and radium. So we add that to the 0.4 for the total intake for the internal dose.

Now, NIOSH used a different approach. They used some tables in the Grand Junction DR template and used the supervisor category to apply to the third quarter of 1986. The laborer category applied to the fourth quarter of 1986.

And so you see Table 2-5 lists their intakes and how they based those. And the total they assigned, then, was 0.053 rem. So, fairly close to us, but two completely different methods, so to speak, to arrive at it.

And so we assigned 0.046 rem. They

assigned a total of 0.065 rem. So, there was a slight difference but two completely different methods to derive it.

This brings us to the summary in Section 3. And we see, if we look at the total external, very close; total internal, fairly close; total, fairly close; and the PoC was fairly close. And we see that the slight difference in assigning doses was mainly due to the LOD value selected and one versus two missed shallow doses. And then for internal, it was mainly due to the overall methodology used to assign that. The rest of the external doses were fairly close and agreed with each other.

So, that's a summary of that. I'll open for any questions.

MR. SIEBERT: This is Scott. Just one other clarification. The difference in-between here was, I noted that SC&A applied the SEC that was effective in mid-2015, which is exactly appropriate, how they should have done it. We, however, did the claim prior to the SEC being final.

So, we actually assigned internal during an earlier timeframe, where they did not because the SEC tells you not to.

So, once again, just like Ron was saying, a slight difference but I just wanted to point out that is why there was one difference there.

DR. BUCHANAN: Okay, thank you.

MS. BEHLING: And this is Kathy. I also wanted to point out that it just so happens that the Grand Junction template has been reviewed by SC&A, because there was a change that was issued under a PER and SC&A has reviewed that template.

(Pause.)

MR. KATZ: Dave, are you with us?

CHAIR KOTELCHUCK: Oh, wait a minute.

MR. KATZ: I heard you for a moment. Maybe you just put yourself on mute again.

CHAIR KOTELCHUCK: I'm sorry. I was on mute. Thank you for catching me.

I was going to ask about the occupational medical dose. They were assigned to

positions and measurements offsite. Right? And those are not compensated because they are not -- right, as I remember?

MS. GOGLIOTTI: They are not covered.

CHAIR KOTELCHUCK: They are not covered. Remind me. We've talked about this a number of times before, but I'm still -- is that decision based on the legal analysis of the law that was passed? Right? That's a legal interpretation.

MS. GOGLIOTTI: Yes.

CHAIR KOTELCHUCK: Okay, because if we normally on -- it seems to me workers' compensation, not this federal law, but in state compensation, the medical dose measurements are required by the worker. The federal government required those measurements of people but they didn't count them. Now, we don't have any data or we may not have any data.

MS. GOGLIOTTI: Generally, we have the data but we just can't use it.

CHAIR KOTELCHUCK: Yeah. Well,

that's -- okay, I -- I --

MR. KATZ: Dave, the law requires us to, and only allows us, to reconstruct doses that incurred at the facility.

CHAIR KOTELCHUCK: Right. I abstain from further comment. Let's say that, on the record. Because there seems to me to be issues that claimants may have. However, this is a legal decision and the law is the law and I'm not a lawyer. And I, therefore, have nothing more to say.

Let's go on, okay, for the next case.

MS. GOGLIOTTI: Okay, I believe the last case is RFP. Doug, are you on the line?

CHAIR KOTELCHUCK: You say the last case. Have we --

MS. GOGLIOTTI: Well, at the last meeting we covered three cases.

CHAIR KOTELCHUCK: Right. Yes, sure. Right. Okay.

MS. BEHLING: In the table that you received today, that was submitted today, that was for --

CHAIR KOTELCHUCK: Twenty-three. That's right.

MS. BEHLING: -- haven't started really reviewing and talking about those.

CHAIR KOTELCHUCK: Right, okay. Sure. Okay, let's go on to that.

MS. GOGLIOTTI: Is Doug on the line? I wonder if he got disconnected.

MS. BEHLING: I will email him.

MS. GOGLIOTTI: Thank you, Kathy.

MR. KATZ: Who are you looking for? John?

MS. GOGLIOTTI: Doug.

MR. KATZ: Oh, Doug. Okay. Yes, he was on earlier. While we are looking for Doug, is there any reason not to proceed into the other blind, the most recent set of blind cases?

CHAIR KOTELCHUCK: Yes, we haven't had a chance to review -- the Subcommittee hasn't had a chance to review them.

MR. KATZ: Oh, you mean you haven't read them. Oh, okay.

CHAIR KOTELCHUCK: I haven't read the reports.

MR. KATZ: Oh, okay, got you.

CHAIR KOTELCHUCK: I looked at the tables.

MR. SIEBERT: This is Scott. Since we're discussing that, if we start on those on the next meeting, could I get a list of which ones? If we're going to do all six, that's fine. If we're going to do a subset, that's fine, too. Just if we could know which ones so that we can prepare in a timely manner as well, that would be helpful.

CHAIR KOTELCHUCK: Absolutely. So, let's see what we have for the next time, because the next time we have the remaining cases in Sets 14 through 18.

While we are waiting, on Set 23, how many blinds?

MR. KATZ: There are six cases.

CHAIR KOTELCHUCK: There are six cases that are completed?

MR. KATZ: Yes.

CHAIR KOTELCHUCK: Okay. Alright. So, I mean, the question is whether we do three or six.

MR. KATZ: Yeah. And so, again, along with -- related to my concerns I expressed earlier about wanting to get through the backlog, I just would, I guess, urge you to consider just keeping it to three so we can spend more time on these regular DR reviews, getting through those.

CHAIR KOTELCHUCK: Right. And that was my inclination, not expressed. And you expressed them. So, I agree. So, we will do three. I mean, it seems to me three cases would be plenty.

CHAIR KOTELCHUCK: So, Rose, if Rose would just -- Rose, you folks can just go ahead and select three that makes sense for whatever reason.

CHAIR KOTELCHUCK: Right. And inform --

MR. KATZ: Right, notify Grady and Scott.

MS. GOGLIOTTI: Okay, we can certainly

do that.

MR. KATZ: Thanks, Rose.

CHAIR KOTELCHUCK: Okay. Well, we're still waiting. What is the Set 22 case we're waiting on? I forget.

MS. GOGLIOTTI: The RFP case.

CHAIR KOTELCHUCK: Pardon?

MR. KATZ: Rocky Flats.

CHAIR KOTELCHUCK: Rocky Flats. Okay, that's it.

MR. KATZ: Doug, have you joined us?

(No response.)

CHAIR KOTELCHUCK: Okay.

MR. KATZ: So, someone was calling Doug. Is that what I understood?

MS. GOGLIOTTI: Kathy is contacting him.

MR. KATZ: Okay, great. Maybe, everyone, should we just take a ten-minute comfort break?

CHAIR KOTELCHUCK: Okay. Well, I was going to take it a little later but that sounds like

a good idea. It is 2:20. See you all back at 2:30.

(Whereupon, the above-entitled matter went off the record at 2:20 p.m. and resumed at 2:31 p.m.)

CHAIR KOTELCHUCK: Okay, please begin.

Rocky Flats

MR. FARVER: Okay. Let's see. We've got the comparison table up on Live Meeting.

CHAIR KOTELCHUCK: Mm-hm.

MR. FARVER: So we can see that now we're looking down on the RFP line.

CHAIR KOTELCHUCK: Right.

MR. FARVER: Okay. So, we can see that there's not too much difference between the external dose, the internal dose, or the total dose.

I think it works out to be a total difference between the total dose of maybe three percent, and less than one percent between the internal doses, and a little higher between the external dose, but we could talk a little bit about that. But that's the most difference. All in

all, it's pretty close all around the line.

CHAIR KOTELCHUCK: Absolutely. So, let's go. Here we are, Table 1.1.

MR. FARVER: Table 1.1. Now, do you want me to go through everything or just the ones that are significantly different? Because we can look at this table, we can talk about each one, but you're going to see there's not going to be much difference between most of them.

CHAIR KOTELCHUCK: Right. Why don't we go over them and then agree to talk about the ones that are a bit different? So, let's start out with the first --

MR. FARVER: And we can look at the photon dose, recorded dose. And if you look at the 30 to 250 keV photons, there is almost no difference, a difference of 10 millirems or so, less than 10 millirems.

And then the shallow dose, less than 30 keV, that's a little higher, but it's at 23, 24 millirem. There isn't a whole lot of difference between the two.

CHAIR KOTELCHUCK: Right. So, I don't think that we need further explication.

MR. FARVER: Okay, really if you just look down, just quickly scan down the recorded neutron dose on both sides, you can see that there is not much --

CHAIR KOTELCHUCK: Right.

MR. FARVER: -- difference in the recorded dose.

CHAIR KOTELCHUCK: Right. That sounds good. So, let's go --

MR. FARVER: You are going to see the most significant difference between the missed dose and on down here we will get into the coworker dose.

CHAIR KOTELCHUCK: That sounds okay.

MR. FARVER: So, that is where you are going to see the difference on the external side.

CHAIR KOTELCHUCK: Okay, let's talk about those.

MR. FARVER: Well, we can talk about the missed photon dose.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: And so we have a difference of gosh, not too much between on the 30 to 250 keVs. It works out to be about 15 percent difference. And on the missed photon dose, it is double, basically.

CHAIR KOTELCHUCK: Right.

MR. FARVER: 15 millirems. And I call up -- I'm trying to look at what is on the screen and also what I have.

CHAIR KOTELCHUCK: Right. You know the previous, when Ron was doing it, we actually had a table that -- this has the discussion in the text, which is fine. There we go. It is easier for us to compare visually.

MR. FARVER: Yes. Go down and look at the missed photon doses.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: You can see the difference there is going to be the number of zeros.

CHAIR KOTELCHUCK: Yes.

MR. FARVER: This is what we see a lot

when we look at these dose reconstructions. It is how you interpret the number of zero readings. And in this case, NIOSH interpreted 75, and we interpreted 52. And that is the difference, other than there is going to be a slight difference between us and them when we do the Monte Carlo calculation. But essentially, the big difference is going to be for the missed photon doses and then the number of zeros.

MEMBER MUNN: That is the specific information I would like to hear, personally. I like to know exactly why the two are not -- when there is a brief difference in approach or a specific reason why the figure is different, that is important for my little brain to absorb.

MR. FARVER: And while we are looking at that table there, if we could just look up a little bit on the recorded photon doses, you notice there wasn't much difference in the recorded photon dose.

CHAIR KOTELCHUCK: Right.

MR. FARVER: That is because

everything was the same except they used the Weibull distribution and the Monte Carlo calculation.

CHAIR KOTELCHUCK: Right.

MR. FARVER: I don't see a whole lot of difference.

CHAIR KOTELCHUCK: But for missed photon doses, there is, and the question is why.

MR. FARVER: Why, which was the number of zeros interpreted differently by two different people.

MEMBER MUNN: That's fine. Very good.

MR. SIEBERT: Were you going to go into the difference between what you did, we did, and why in the coworker, or were you going to cover that later, or how are we going to do that?

MR. FARVER: Well, we are going to just go down the table and get to the coworker, I imagine.

MR. SIEBERT: Because both of those pieces actually tie together.

MR. FARVER: They do.

CHAIR KOTELCHUCK: Okay. So, would you suggest that we keep going and then keep this in mind?

MR. FARVER: Yes, we will just keep going, and then we can get to the point that Scott wants to talk about. Rarely, when you get into a missed photon dose, the missed doses and the coworker dose, a lot of it is how you interpret the data.

CHAIR KOTELCHUCK: Aha, okay.

MR. FARVER: Do you assign a missed dose where you have a zero dosimeter reading, or do you assign it as a coworker time period.

CHAIR KOTELCHUCK: Good. Okay, then.

MR. FARVER: So, if we move down to the next page -- well, we can look for the unmonitored photon doses right next to it, which is right on the bottom.

CHAIR KOTELCHUCK: Yes.

MR. FARVER: Well, we can see that one of the main differences is going to be the time period assigned for the coworker dose or the

unmonitored dose. And you can see there is a difference in the months interpreted.

And I think this is one of the things that Scott was talking about is it depends on how you interpret these time periods and then what you assign as missed dose or unmonitored dose.

And when you combine the two, that is where you might see differences in individual ones, but when we look at them combined, we don't see that much of a difference.

CHAIR KOTELCHUCK: What gives you -- in your analysis, what gives you the -- what determines for you when you are going to go for coworker and when you are going to go for missed dose? Because there are differences.

MR. FARVER: And I think I would like to let Scott address this because he is more familiar with this.

CHAIR KOTELCHUCK: Okay.

MR. SIEBERT: Sure. It really comes down to what you consider an unmonitored short period and how to address it. The IG001, which is

the external dosimetry IG, gives some information as to short-term gaps and whether we should actually assume that they were unmonitored and you should use coworker, or they were unmonitored or potentially unmonitored, and we should average out the information if we have dose information on either side of the gap.

We have, Rocky Flats, being as it is and so complex when it comes to their external dosimetry, we have put into the TBD as well as the DR guidance document pretty clear steps as to how to consider those short-term gaps, and that is really the difference we are seeing here. Whenever we saw a short-term gap, which is generally less than three months, less than a quarter, we interpolate the values between the external dose values, badges on either side of that short-term gap. That is directly coming out of IG001.

CHAIR KOTELCHUCK: Ah.

MR. SIEBERT: And I know 1990 actually is a really good example, when you look at this

table. Because, if you notice, we have no periods where we are dealing with it, and SC&A had almost five months.

CHAIR KOTELCHUCK: That's right.

MR. SIEBERT: And the difference is, if we actually looked at the data for 1990, which I have it in front of me, there are results pretty much every other month, pretty close. So, we never had a time period that was greater than three months during that whole year. So, we used the gap-fill methods for that whole year for the time frame for the very short gaps in-between monitoring time frames.

When we do that, we are going to interpolate between the actual data that we have, whereas, Doug correct me if I am wrong, I believe SC&A took that chunk of time and called that coworker instead.

MR. FARVER: Yes.

CHAIR KOTELCHUCK: Right.

MR. SIEBERT: And that right there is the basic difference of the interpolation of the

short-term gaps.

CHAIR KOTELCHUCK: That is very helpful. And that also explains, as I am looking at the first years, the '85 through '89, the numbers we are talking about, how the beginning and the end of the period, that many of the numbers from NIOSH are a fractional bump beyond what SC&A gave.

MR. SIEBERT: Correct.

CHAIR KOTELCHUCK: For 1989, 11 versus 11.7; 4.47, et cetera. Okay, good. That is -- Wanda, that clarifies it for me, and I trust for you.

MEMBER MUNN: Yes.

CHAIR KOTELCHUCK: Good. Good.

MR. FARVER: Okay. Well, that pretty much covers any missed photon dose and the coworker or unmonitored photon dose.

CHAIR KOTELCHUCK: Right.

MR. FARVER: Okay. We go right next down the line is recorded shallow dose. We saw a little bit of a difference, and that is just the number of years. One result -- it looks like NIOSH

assigned it for three years and then SC&A assigned it for two years.

CHAIR KOTELCHUCK: Right.

MR. FARVER: But it is still a very small difference. And then the missed shallow dose, you can see looking at the exact number of zeros.

CHAIR KOTELCHUCK: Right.

MR. FARVER: It's what we talked about before. It is how you interpret the time period.

CHAIR KOTELCHUCK: Right.

MR. FARVER: And then to the unmonitored or coworker shallow dose, you see the same thing.

CHAIR KOTELCHUCK: That's right.

MR. FARVER: The covered time period is different, how you interpret that as opposed to a missed dose.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: And to the recorded neutron doses, we can talk about it; they're pretty much the same. Well, essentially the same except

for the Monte Carlo and the Weibull distribution.

CHAIR KOTELCHUCK: Right.

MR. FARVER: They applied the glove box factor for the same year. And then the missed neutron doses, once again, number of zeros. NIOSH interpreted them as 81, and SC&A at 56. Everything else was essentially the same. So that will give you your difference between your missed neutron doses.

And then the coworker neutron doses is what we just talked about before. It comes down to time period. The method of the calculating of the dose is the same. It is the interpretation of the time period that is different.

CHAIR KOTELCHUCK: I will say that the NIOSH folks said that their interpretation was based on the written instructions, right? And I'm not -- why didn't SC&A follow those?

MR. FARVER: There is an averaging method described in IG001. And a lot of it depends on how you interpret the safe periods and what you -- whether it is quarterly or monthly or biweekly.

CHAIR KOTELCHUCK: I'm not going to pursue it further. Obviously, what I have in my mind, in the back of my mind and therefore coming out in these questions, are issues of consistency that we are going to be talking about later today. But that is --

MR. FARVER: And when I was reading over the memo, this is one of the items that came to mind, whether it is the number of zeros that we interpret or the time period. Because I believe in the memo it talks about facilities we worked at.

I think this is another example, especially the number of zeros. We have seen this before in our comparison of dose reconstructions where you interpret the number of zeros differently depending on what exchange frequency you assume and things like that. And the time period is just another method.

I am not that familiar with the time period averaging method in IG001. I believe I have looked at it before, and I don't know if it is a consistency problem or not.

CHAIR KOTELCHUCK: Well, we will think about that. And since things are really quite similar, I don't want to belabor this.

MR. KATZ: But just on this point, Dave, on consistency, the consistency we are concerned about is consistency at NIOSH, not between NIOSH and SC&A, if SC&A is using a different approach.

MR. FARVER: That is what I mean, Ted. I don't know if they are consistently applying it the same way or not.

MR. SIEBERT: This is Scott. I will tell you we are, because Procedure 6 covers this, IG001 covers this, as well as I mentioned, the DR guidance document for Rocky Flats is very prescriptive as to how to deal with these short-term gaps as well.

So, from our side of it, we are following all that written guidance.

CHAIR KOTELCHUCK: Good.

MR. FARVER: I know their DR guidance document is very prescriptive about exchange

periods and time periods.

MS. BEHLING: Okay and this is Kathy, if I can ask one quick question. So, because I am not as familiar with the Rocky Flats TBD, there is no real specific guidance in the TBD, the Rocky Flats Technical Site Profile. Is that correct? You are pretty much relying on your DR guidance notes?

I'm sorry, I am probably confusing things.

MR. SIEBERT: No, it is a valid question. There is a lot of information in the TBD. The reason I am slowing down as I am answering that is I am looking furiously to see the most recent version of the TBD.

Okay, this is what I thought and I wasn't positive about. It hasn't been updated since 2010. So, yes, there is information in it, but it is not as prescriptive as the DR guidance document. And the assumption would be the next time we do a TBD, external TBD update for Rocky Flats, we will incorporate all of that information

into the TBD itself.

MS. BEHLING: Okay. Yes, because I have mentioned before, often, we considered a TBD as a document that we would refer to maybe quicker than a guidance document that is not formally published. But I just wanted to have some clarification. I know the Rocky Flats Site is very complex.

CHAIR KOTELCHUCK: Okay, let's do go on, Doug.

MR. FARVER: Okay. Gosh, we are talking about the unmonitored or coworker neutron doses. We talked about the time periods, how they are different. So, that accounts for the huge difference between -- well, it is not a huge difference -- the difference between the SC&A and the NIOSH values for coworker neutron doses.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: Other than that, the medical doses, those are essentially the same. There is not much difference. I think it comes down to SC&A assuming one other exam than NIOSH did.

I believe that is the only difference, but they are still very close.

What is interesting is when you look at the totality of all of this, it is amazing that everyone is so close on everything, even though maybe individually you will see what you think is a wide difference. It all kind of evens out in the end.

But, you know, external ambient dose was not assigned. And then we get into the internal doses. Now, the internal doses for, let's see where we can see, for the plutonium, americium, uranium, the -- let me see if I can get the right ones here. Everybody assumed the same type materials, S, Super S, and plutonium, americium, uranium Type S.

The difference you are going to see in the doses is as we go down and look individually for the missed uranium doses, you are going to see a difference of a millirem between the two methods.

The americium, you see a difference of -- well, you don't see a difference between the

americium doses. The missed plutonium and americium, a difference of 20-40 millirem. It is surprisingly equal. And the coworker plutonium and americium are the same exactly.

They did get essentially the same on both sides. And the doses show that. That is why the total difference between the internal doses is 27 millirem, 19.724 to 19.697.

CHAIR KOTELCHUCK: That is not on our screen, by the way.

MR. FARVER: Those are tallies that I tallied up.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: It would be -- it's in the final table.

CHAIR KOTELCHUCK: Okay, we are moving toward that.

MR. FARVER: If you get to the final table on page -- gosh, it is going to be down towards the end.

CHAIR KOTELCHUCK: Here we go.

MR. FARVER: I mean I can go through

each one individually but --

CHAIR KOTELCHUCK: No, no.

MR. FARVER: -- it is kind of -- they did the same thing.

CHAIR KOTELCHUCK: Right.

MR. FARVER: I'm looking for the final table. I don't usually have one.

CHAIR KOTELCHUCK: Yes.

MS. GOGLIOTTI: This one is, I think, Doug.

MR. FARVER: I don't see it there. Okay.

CHAIR KOTELCHUCK: Well, we can go up to the first table, then, where it was all summarized.

MR. FARVER: The total internal dose for NIOSH was 19.724 rem. The total for SC&A was 19.697 rem for the internal dose.

CHAIR KOTELCHUCK: Okay.

MR. FARVER: There is about 0.01 percent difference.

CHAIR KOTELCHUCK: Right.

MR. FARVER: It was surprisingly the same.

CHAIR KOTELCHUCK: I hope not surprisingly, but it was close. And it was close, and they both showed that there should be compensation.

MR. FARVER: Yes, they did.

CHAIR KOTELCHUCK: And that is important. Okay, good.

Are there any comments, further comments? I talked a fair amount. Are there any further comments about this regard?

MEMBER MUNN: No, it is just enormously reassuring, the end results.

CHAIR KOTELCHUCK: Yes. Yes, I don't think we have done too many over 50 percent earlier in the first earlier sets of the blinds. I think mostly we took ones that were in the high 40s and had agreement.

I don't recall whether we had any other ones that were above 50 percent, and they both came in above 50 percent. We had one or two, perhaps,

in the first 20 cases.

MEMBER MUNN: We have always focused on noncompensable.

CHAIR KOTELCHUCK: Right because that is so important, but also, that once we were in that range so close to 50, that we come in the same in terms of decisions. It's important.

Okay, should we accept this folks? Am I right in saying this is now accepted?

MEMBER BEACH: Yes, I think so, Dave.

CHAIR KOTELCHUCK: Okay.

MEMBER MUNN: Agreed.

CHAIR KOTELCHUCK: Okay. Fine. Doug, thanks.

MR. FARVER: Okay, thanks.

CHAIR KOTELCHUCK: So, we have finished now all six of the 22nd Set blinds. We will now next time go on to three of the next six blinds for Set 23.

And I think we are ready to talk about the memo on improving consistency that SC&A developed. And I must say, developed pretty close

to -- let's see, they developed it in March of this year. So six months ago or more. More than six months ago.

Well, Rose, would you like to summarize? Now, we have all read it, I trust. And I hope we have thoughts that we want to express, but I think it would be good if we start out having Rose outline the arguments and the position that she made, briefly, if you can, assuming that we have all read it.

MS. GOGLIOTTI: I will do my best.

CHAIR KOTELCHUCK: Okay.

Begin Discussion on Improving Consistency in Dose Reconstruction (SC&A Memo 3-11-16)

MS. GOGLIOTTI: So, this idea came up actually in the Methods Review Work Group meeting in November of 2015. So, about a year ago. And Dr. Melius was concerned that the Board isn't adequately targeting consistency issues. And what I mean by consistency issues would be issues where professional judgment is involved.

So, if two NIOSH dose reconstructors were to do the same case, would they reach the same

compensation decision? And they asked us to explore ways that the Board could target this issue, which -- and this will be very challenging to target. But we did a lot of brainstorming, and I think we came up with some ways that might work.

Historically, everyone knows that we do two types of dose reconstruction-related reviews.

CHAIR KOTELCHUCK: Could you speak just a little louder, please?

MS. GOGLIOTTI: Sorry.

CHAIR KOTELCHUCK: Okay.

MS. GOGLIOTTI: We have our normal dose reconstruction review, where SC&A reviews previously completed cases done by NIOSH, and we compare them against the guidance documents, when we find -- we identify technical and QA errors of findings. And then we also have our blind dose reconstruction reviews, where SC&A independently creates the dose reconstruction on the case, and then we compare our dose reconstruction to NIOSH's. Now, that method doesn't identify findings. We don't pass judgment. It is simply how well two

independent dose reconstructors interpret the same data and come to what conclusion.

And so based on historically, we think that a non-blind approach would make more sense in doing a dose reconstruction. And in order to do that, we would, of course, have to modify our selection criteria to target consistency-related issues. And if we were to use this approach, we would have to select a number of cases from the same site. They would need similar employment history. And we actually suggest targeting sites without formal TBDs. The sites without formal TBDs tend to have less prescriptive approaches, and there is more room for professional judgment in those case. But there is also a drawback to that in that the cases without formal TBDs or the sites without formal TBDs, there is generally less of them, less claimants working at those sites. And so we would have less of an impact in consistency.

And we got to thinking we didn't love that approach, but that is one possible way to pursue this issue.

The other thing we came up with would be to do a partial review or a focused review. So, something similar to what we do for the PER Subcommittee, where we would select a single issue in multiple cases and look at just a focused aspect of that particular review. And that would allow us to look at a larger sample of cases without spending the resources on doing the full dose reconstruction when we are only targeting a single issue.

This, again, would be if we wanted to target a specific issue of consistency, we would have to select the correct issue or an issue that we wanted to pursue.

SC&A, we did come up with some ideas of areas where we think there may be consistency issues, and this is not an exhaustive list by any means, but it is based on institutional knowledge. We didn't go back through our cases and base this on real data, but these are things in the back of our mind that we have always wondered if this is being done consistently.

I won't go through them all in-depth. But areas of coworker dose, selecting the correct percentile; for skin cancers, is the same method in an X-ray dose always being applied; is use of in-vitro and in-vivo data properly identified; construction trade workers; Use of glove box correction factors; exposure area criteria; and handling the Oak Ridge Sites.

And if we were to do those, proper case selection is extremely important and very challenging. The cases would have to have similar exposure histories, similar work location, employment dates, and they would have to be completed within similar time frames because guidance documents change, and in order to see if they are being applied consistently, we have to use the same documents. And also, they would have to be near the 50 percent threshold. So, best-estimate, once you get into the maximizing and minimizing cases, consistency is really a lot less important because it is not impacting the compensation decision.

And so those are just some ideas we threw out there.

CHAIR KOTELCHUCK: Okay. And there are a couple of other ones that you didn't discuss, the last few, right?

MS. GOGLIOTTI: Well, I didn't go into depth about the difference.

CHAIR KOTELCHUCK: Yes, okay. So, let's begin talking. It does seem to me that the notion of the partial analyses does seem to me to make sense, and certainly, the coworker dose hit me initially as one that has always been a matter of concern.

But I do think that there is more information in the blinds. I think we have done enough blinds that in fact there is some information there that will help us spot areas of inconsistency by looking at --

MS. GOGLIOTTI: I think it is important, Dave, to point out that the blinds locate consistency between SC&A and NIOSH, and that is not really what we are targeting. You really

want to target between NIOSH and NIOSH.

CHAIR KOTELCHUCK: Actually, yes, you are right. Good point. Okay.

Anyhow, other folks, what are your takes? What are your first impressions?

MEMBER BEACH: I guess -- this is Josie, Dave. Does NIOSH have -- and I don't want to say list, but is there ways that they can come up with something where we are using professional judgment more than not in different cases?

CHAIR KOTELCHUCK: Yes, good question, since it is the NIOSH consistency that we are talking about.

MR. CALHOUN: This is Grady, and my first reaction is that typically, I can't say on a site, you know site-by-site where we would use it more, but typically we use that more when there is no dosimetry.

And just another thing, not on that exact question, though, but she mentioned, you know, trying to get close to the 50 percent. We're already tapping that well pretty dry because just

the total percentage of cases that are out there are very, very low that are between the 48 and 52. And I think that we have actually seen that when we have had to expand that range. So that is just a thought based on what she said before.

CHAIR KOTELCHUCK: You are saying that professional judgment is most common where we don't have Site Profiles?

MR. CALHOUN: No, where we don't have dosimetry. Like for example, let's just say somebody worked at XYZ Site, and we may have a giant Site Profile for it, and we don't have dosimetry. Maybe we have to decide whether or not the guy should have been monitored or not. That is usually the hot topic.

CHAIR KOTELCHUCK: Which would then manifest as coworker assignment?

MR. CALHOUN: Potentially.

MR. KATZ: I mean, Dave, so coworkers, sort of part of the issue is it may or may not be coworker, and that is part of the consistency issue.

CHAIR KOTELCHUCK: Yes. Others?

MEMBER BEACH: I wonder if it would be possible to do like a sampling using a couple of different methods that SC&A suggested here just to see, to go forward and see what we did, what our dose reconstruction --

CHAIR KOTELCHUCK: Yes. In fact, yes, I agree. In fact that was the spirit of the comment that, well, why don't we compare blinds. But of course, you are -- correctly, I was corrected to say, yes, but we are interested in looking only at the NIOSH reconstructions.

So, yes, it would be very helpful if we are able to kind of get a sense of sample. I'm not quite sure how to do it, to determine which of these different kinds of cases or other ones should be looked at of the seven that were recommended by SC&A.

Grady, is that something? I don't know quite how to do it.

MR. CALHOUN: I'm struggling with that, too. I mean, since we provide the cases

based on what you want to look at, we would have to have some kind of, I don't know, a fairly descriptive set of parameters that you want for us to try to go in and find these specific types of cases. I can't think of anything off the top of my head, at least that would be less laborious than going case by case and digging into them, which I don't particularly want to deal with.

CHAIR KOTELCHUCK: No, and I understand. Also, you have plenty of other things to do. So, in this --

MR. KATZ: Can I suggest Dave --

CHAIR KOTELCHUCK: Yes.

MR. KATZ: -- one thing that might be useful that I was thinking about as this was coming up was, I mean, this is sort of catching Grady and company cold, because they weren't really asked the question. SC&A was asked the question. But I just wonder if they would, if Grady and company and Scott would sort of put their heads together and maybe just give some thought as to what has been suggested by SC&A and whether they have better

ideas for how they might go at this question from their own purposes as to where they might feel their consistency is a vulnerability and then how to get at that.

And if they can give some thought to that and get back to the Subcommittee, that would be helpful to have that, their perspective on that.

CHAIR KOTELCHUCK: It would be. And I was also thinking, because it is clear there is a lot of detailed, thinking and detailed discussion to do, I must say I was also thinking about a Subcommittee of the Committee to think about that.

Well, I mean it is hard to get our teeth into it. I mean first, Grady, do you think, and Scott, do you think that you could, would you be willing to get together and think about how you might, based, sort of taking off from SC&A's memo, how you might be able to do a sampling?

MR. CALHOUN: Sure. Yes, I can -- we will think about it. That's easy to do.

CHAIR KOTELCHUCK: Right. And I don't -- I am hesitant to say that the rest of the

Subcommittee does nothing on this until we hear from you at the next meeting, which is a few months off.

And maybe I'm worried. Ted, you talked initially about how about let's see what we can do, that the Board would like to see this maybe in six months or so. It does seem to me there is a good chance that we won't even get this resolved for more like a year. Is that a problem?

MEMBER MUNN: If ever.

MR. KATZ: Wanda.

CHAIR KOTELCHUCK: If ever? Yes. No, you are absolutely right.

MEMBER MUNN: Well, it is one of those things. I am going to try to keep my comments halfway professional here. And it is very hard for me to do because I cannot see, personally, the real value in what we are being asked to do or why we are being asked to do this.

Starting from the premise that there is some accuracy in the old adage that consistency is the hobgoblin of small minds, one has to try to

figure out what are we trying to do here, other than to show in some way that professional judgment has no place in the kind of activities that we are doing and that there must be some magical way so that we can make sure that every case is approached with the same rigor or with the same formula.

Given the complexity of what we have had to do, it seems almost impossible for me to do this. And that being the case, I think we are given a directive -- and I'm not sure. Did we direct ourselves to do this?

CHAIR KOTELCHUCK: No. Apparently, this came from the Methods.

MR. KATZ: Yes, and I think, Wanda, just to sort of make it a little more open or less of a hammer than I think you might be painting it as, I think what the interest is is just seeing how well, how consistent are we in dealing with matters that involve judgment. And seeing that just to see whether there are opportunities to tighten that up.

I don't think there was really a critical perspective behind or a negative

perspective behind the recommendation that we take a look at this. But I think it was to see well, how well do we do in applying judgment in a consistent way when we have to apply judgment.

And again, we may find that we do as well as we can, or we may find that there are opportunities to tighten things up.

MEMBER MUNN: To me, it sounds like a very nice idea. But the truth of the matter is, it is catch-22. There is no way we can assess the value of professional judgments and the use of professional judgments without using our own professional judgment.

You know, I don't see any way out of that cycle.

CHAIR KOTELCHUCK: Well, you know, I think implicit in that is that the dose reconstructors have a range of professional skills. I'm not sure they have the experience that the Board has. I do see that there may be -- I don't know all the dose reconstructors. I don't know many of them. But I'm not sure that the level

of knowledge that they bring in, the level of professionalism, I just don't know.

MEMBER MUNN: Well, is that our purview? Is that what we are being asked to do is evaluate the professional capabilities of the people who are doing that? Because that is really, from one perspective, that is what this comes all down to.

And well, I am going to stop because, as I said, I am going to try to address this in a professional manner, if I can. But suffice it to say, I think it is obvious I have real reservations if there is a point to this or that there is any legitimate value we can add.

CHAIR KOTELCHUCK: Well, I appreciate your comments, and, actually, I guess your -- I was not ever a part of the discussion about consistency. I was told that we had, apparently, and I thought it was at a Board meeting, been asked to do this.

MR. KATZ: Yes, it has been discussed at a Board meeting, but I mean I think it was

discussed at one of the Work Group meetings for the Methods Group.

CHAIR KOTELCHUCK: Yes.

MR. KATZ: And just, again, Wanda, you have been around a long time, and so have the people that are on the Methods Work Group been around for a long time. And you guys, in addition to the Subcommittee here, you guys pair up and review cases before they get to the Subcommittee. And Dr. Melius, among others, has seen many, many, many cases over these years.

And so it is just a fair question. I think the question probably started with Dr. Melius, maybe not just with Dr. Melius, but that he has seen a lot of cases, and just the question is present to him that: are these sort of issues of judgment being handled in a consistent manner to the extent that they can be?

I just think it is a fair question to ask. And until you look, you can't really have any judgment as to whether there is any there -- any meat to analyze there in terms of differences. If

it is all matters of just sort of as you are constructing, Wanda, if it is all matters simply of good professional judgment without a tightrope or without guidelines, but it is where you have to just apply your own personal, professional judgment, that may be all good. But there may be instances where professional judgment is being applied where more of a template could be constructed or more guidance to address certain matters.

Just until you go there, I guess you can't know.

CHAIR KOTELCHUCK: Well, but I do -- I mean I am troubled by the underlying implication, which I wandered into myself of: are we questioning or trying to evaluate the professionalism of the dose reconstructors with our professional experience on the Board? And that is a little troubling.

And I am certainly going to think more about it, having opened up having all of us entered into this discussion.

I will say, I mean our blinds, the blind cases that we are doing, it seems to me right now are absolutely the best thing that we can use to determine consistency because it takes the entire range of decisions and prescriptions that we have made and puts them all on the line, if you will. And so far, our results have been really quite gratifying.

So, could we do better? Well, I don't know. I think back now, even from this brief discussion, wanting to say to myself -- asking myself what will we gain from this.

Let's say we would like to be more consistent. We can always say that. But what would we be judging on consistency? Would we be evaluating the dose reconstructors? I think it is, by the way. I think that is what we would be doing, like it or not.

MEMBER POSTON: Well, the solution to making sure that everybody is consistent is, in the absurdity, is to have only one dose reconstructor.

CHAIR KOTELCHUCK: That's right.

MEMBER POSTON: And in my -- I seem to remember, and I may be wrong, please correct me, but way, way back when we started this program, it was my understanding that these people had peer reviews, that there were people in ORAU or somewhere who looked at every dose reconstruction that was submitted, especially when you are working with a new person who is learning the ropes.

So, is that still the fact? Is there sort of a quality assurance check that is done on people, or once they reach a certain point, do you just let them go? What are the answers to that?

MR. CALHOUN: This is Grady. I will give you -- and Scott may be able to add. But certainly, you have the dose reconstructor. You have a peer reviewer. That is from ORAU. Then it comes over here to DCAS. You have an HP over here that reviews it and signs it. And then you have what we call a Tech Reviewer over here that just kind of looks at big picture items to make sure that nothing slipped through.

So, there is a lot of levels of review

here.

Now, one thing that I -- and we are going to do whatever you would like to do, and we will try and put our heads together. But I would try to think this through to the end. And what I am thinking is that, well, we used our professional judgment on this case, and this is what we decided to do. And someone over there says, you know, I would have done something different. Well, where do we go? You know? I don't know. And like Dave is saying there, I don't know what the end game is here. It is a little confusing to me. I'm afraid we are going to end up in a big shouting match at the end of some of these. But I guess it can't hurt to look.

MEMBER POSTON: Well, you have a reviewer reviewing a reviewer. I mean where does it stop? The question that I always like to ask, if it ain't broke, why are we trying to fix it? Is or is not the system that is in place acceptable to get consistency?

MR. KATZ: I would encourage the

Subcommittee, given this nature of discussion, I mean sooner than later, I mean we have a Board meeting next week, as part of Dave's report out, I think you can reflect some of these concerns and get more input from the people that were on that Methods Work Group and the rest of the Board. This is a good time to sort of tap them up front to get more thinking about this.

CHAIR KOTELCHUCK: Well, that becomes, frankly, virtually an agenda item, because you don't open it up by me giving a two-minute report on what I think we said or best as I can summarize what we have said, because other people will speak. It would be a substantial discussion and it would be good.

MR. KATZ: Yes, there is nothing wrong. I don't need to add an agenda item for this. The DR Subcommittee reports out like all the Work Groups. It is not like we have spent hours discussing this. I mean this is really a few minutes of discussion, in terms of content we have here.

But I mean I think it is a good idea to get more input early, as opposed to the Subcommittee churning on this without more input from folks that have sort of instigated this.

CHAIR KOTELCHUCK: Right. Well, that is --

MEMBER POSTON: The problem is it is doubtful -- I have forgotten now all this, but it is doubtful that I could sit down and do a dose reconstruction. And I would challenge anybody on the Subcommittee that they probably can't either.

MR. KATZ: I absolutely agree.

MEMBER POSTON: So, what are we trying to answer here, and what kind of effort are we putting into something that perhaps doesn't need to be done? Don't we have the checks and balances already in place?

MR. KATZ: That is all part of that, again, what you could raise if Dave raises this in part of his report, John, that is a thought to contribute to the discussion.

MEMBER POSTON: Well, I hope I will be

on the phone because I am not traveling.

MR. KATZ: Yes.

CHAIR KOTELCHUCK: Well, when we do our Work Group reports, we can certainly open it up.

I don't think other people, in fact I am quite sure other people have not seen the report that SC&A developed. Right?

MR. KATZ: I mean, I think at one point it was sent to everyone, but I can certainly distribute that. I can distribute that to everyone with the rest of the batches I send out before each meeting.

CHAIR KOTELCHUCK: Right. Why don't you? Why don't you? Because if we are going to talk about it at all, that was an opening shot in the discussion.

MR. KATZ: Right. And if we are ending up being tight on time, and there isn't really much time to even get into it at all, Dr. Melius will, I am sure, let you know that, and we can put this on for the next meeting.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: A teleconference, for that matter.

CHAIR KOTELCHUCK: Well, I am leaving with the thought, again, which several folks have raised now, what is the end game? Because I am not clear what the end game is. And I haven't decided in my own mind what we could reasonably come up with.

If I may respond, John, to your comment, if it ain't broke don't fix it, if I am focusing on what is really broke, it is not our method of calculation. It is the absence of data that might have or should have been collected on the exposures of people over the years, and there is not a thing we can do about that.

MEMBER POSTON: I agree completely.

CHAIR KOTELCHUCK: And I mean sometimes we get into such details about a small amount of exposure when the big problem is that we are missing loads and loads of measurements that we don't have that we should have had.

MR. KATZ: Alright, well, without it a

lot of SEC Classes --

MEMBER POSTON: I mean, we all know that. I have been in the business since 1957, and I know that a lot of the records are not available. They are in terrible shape. You can't read them, all those kinds of things, but we have to do the best we can.

CHAIR KOTELCHUCK: And that is what we are doing.

MEMBER POSTON: But I am talking about the dose reconstructors. I mean, we have a method, a review method already in place. If someone has a reason to do this, I guess we ought to do it, but I don't see any justification for doing it. These guys and gals are professionals. I respect them all; I know most of them.

MEMBER BEACH: Dave, can I make a suggestion?

CHAIR KOTELCHUCK: Yes.

MEMBER BEACH: I know that the Dose Reconstruction Methods Work Group discussed this on November 5, 2015. It may be important for some

of us that have a question about why we decided they needed to ask SC&A this question is maybe to review the transcript from that meeting. That might clear up some of this.

And I still think the spirit of the question is professional judgment. I have heard professional judgment being mentioned my whole time on the Board, and I think that it is the question we want answered. The checks and balances are in place, but a lot of times the end answer is, it is professional judgment.

So, I think it is just we are looking for consistency.

MS. BEHLING: Dave, this is Kathy Behling.

CHAIR KOTELCHUCK: Yes?

MS. BEHLING: Is it appropriate for me to just ask a question or interject something?

CHAIR KOTELCHUCK: Yes.

MS. BEHLING: Okay, I just am curious. And I'm not sure if I am going in the right direction here, but there was a period of time where NIOSH,

they were doing internal blinds. Would this consistency issue be answered by that process? I'm not sure that that is being done anymore, but what was done in the past, could that shed light on any of these consistency issues?

CHAIR KOTELCHUCK: Grady?

MR. CALHOUN: Yes, this is Grady. We have not done any of those for a long, long time.

I don't think it would because we are really just doing exactly what you guys are doing. We were picking up cases that had already been completed and just doing a dose reconstruction according to the current documents that are out there.

But what you are looking at is you, at least what I believe you say you want to look at is let's just take two people with lung cancer that work at Savannah River Site from 1975 to 1983 in the same relative area and don't have dosimetry. One assigned coworker data; one didn't. I mean that is kind of what I am thinking you are looking for. Am I wrong?

CHAIR KOTELCHUCK: Yes, but if you did those internal blinds, you did them years ago. So much has changed since then --

MR. CALHOUN: Oh, yes.

CHAIR KOTELCHUCK: -- because we are always upgrading our procedures, which is for the good, I mean to the point that we are able to get now lots of cases of blinds in which we have strong agreement between at least NIOSH and SC&A.

I don't see that those would be helpful to us today.

MR. CALHOUN: I don't think so either, Dave. And I think that the issue is that in my mind, I believe you are going to have to get at least two but probably more cases that are very, very similar in a lot of ways. And certainly at the same site and certainly with the same occupation and where they worked, really, and trying to make a determination if the same assumptions were made on two, three, four of those cases, and if not, why. That seems to be what they are looking for, I think.

CHAIR KOTELCHUCK: Yes.

MR. KATZ: Grady, I think you're right.

CHAIR KOTELCHUCK: I think -- am I on?

MR. KATZ: Yes.

CHAIR KOTELCHUCK: Okay. One thing that possibly that could be done, you are right, Grady, that we have to look at cases where between 45 and let's say 55 percent, going back to the old criteria, there aren't that many cases. And I don't know whether they have to have -- well, I guess they have to have similar cancers. Right?

MS. GOGLIOTTI: No.

CHAIR KOTELCHUCK: No. I'm wondering whether -- I mean, we can find out the body of 45 to 52 percent, right? I mean we have actually been over that body. No, we have been over it in the reviews. We haven't been over it, excuse me, yes, in the Subcommittee reviews. But that is still, what is it 8 percent of all of the cases?

MR. CALHOUN: Something like that.

CHAIR KOTELCHUCK: Yes, and then 8 percent of what, 30,000 cases? Right.

MR. KATZ: Yes.

CHAIR KOTELCHUCK: So --

MR. CALHOUN: Some 46,000 in-house already.

CHAIR KOTELCHUCK: Yes.

MR. CALHOUN: But a lot of those we didn't do because of the SECs and whatnot.

CHAIR KOTELCHUCK: Right. So, we have 30,000 -- 2,400 cases, roughly, at 8 percent.

I mean is there data that we -- are there enough cases that we can, with similar occupations and the same plant, right?

MR. CALHOUN: And the same era.

CHAIR KOTELCHUCK: Right, that we can compare. And the same era, right.

MEMBER MUNN: I can give you a one-word answer for that now.

CHAIR KOTELCHUCK: I think I know what your answer is. Go ahead.

MEMBER MUNN: No.

CHAIR KOTELCHUCK: No. And we could tabulate that. We could tabulate that, which is already a task for somebody, and answer with data

that the answer is no. I mean, right? Your experience, Wanda, says the answer is no.

MEMBER MUNN: No.

CHAIR KOTELCHUCK: And I suspect you are right. Were we to amass a table of data of the cases that were done with best estimates by site, by occupation --

MR. KATZ: By era.

CHAIR KOTELCHUCK: -- by era.

MR. KATZ: And it is more than occupation because it is very different prophecies, right, even for a single occupation.

CHAIR KOTELCHUCK: Yes.

MR. KATZ: You are talking about people who work side-by-side, basically, you want to look at.

CHAIR KOTELCHUCK: Yes.

MR. CALHOUN: The same location and the same job.

MR. KATZ: Of a point, right.

CHAIR KOTELCHUCK: So, it may be that the data isn't there to do consistency. And that

would put the whole thing to rest.

MEMBER MUNN: One still has the question, and to what end?

CHAIR KOTELCHUCK: That's right.

MEMBER MUNN: Once you have answered the question, is it possible to answer the question, if it is possible to answer the question, well, so what?

CHAIR KOTELCHUCK: By the way, you are absolutely right. To what end? We haven't been --

MEMBER MUNN: So we have been consistent; we have not been consistent. Yes.

CHAIR KOTELCHUCK: Yes. But even if we could come up with an end, and that is something that I certainly, and I think others, will want to think about now, is to what end do we want this? We may come up with the fact that even if we can figure out a proper end, that we don't have the data to check it out.

MEMBER MUNN: Well, basically, underlying my position is the fact that we are

fooling ourselves into trying to believe that we are pursuing the scientific method here. And even if we are accurate in pursuing the quote scientific method, given the what ifs and other inclusions that we have added into or subtracted from the process, that we permitted to go on here, that still does not change the fact that scientific method tells us repeatedly, you can follow a method in doing a thing and still expect to have differing professional judgments on how to pursue this kind or any kind of scientific approach to anything.

If there were agreement in -- if there were absolutely concrete professional judgment agreement that one could reach, then none of us would be struggling with any of the issues we struggle even in daily life.

MR. KATZ: You know what I am going to suggest? I think, because you have all raised very interesting perspectives, I think what, instead of -- I had recommended to you that you might raise this at the next Board meeting, but I think you guys have enough material to chew on, or perspectives,

which, again, are very interesting, that Work Group, the Methods Work Group can meet again. And you guys who are not on it, some of you are, can join it, and have this more full discussion of the whole concept. I think that would be a good thing to do.

CHAIR KOTELCHUCK: That's a thought. I mean, of us sitting in on the Methods Work Group discussion, I had not thought about that.

MR. KATZ: Dave, I think you are on it already.

CHAIR KOTELCHUCK: No, I'm not.

MR. KATZ: Oh, okay. Hmm, okay. I'm surprised at that. But, yes, so you could all join it.

The Work Groups are not exclusive. As long as we don't end up with a quorum of the Board, we are fine.

CHAIR KOTELCHUCK: Right. When does the Methods Group meet?

MR. KATZ: Well, it doesn't have a meeting scheduled, but there is not a problem with

doing that. So, we can certainly -- I can talk to Jim, and we can certainly -- he is the Chair of that group, and we could certainly have a meeting. It seems like it would be a very useful thing to do.

CHAIR KOTELCHUCK: It sounds like it would be. What do other Board Members think?

MEMBER CLAWSON: Well, this is Brad. You know I have been sitting back and listening to all of this. I think we all need to realize where to tie it all back to, and that is where professional judgment started to come in. And then coworker data started to come in.

You are right. Everybody's right but there is a lot of data out there that we are not going to be able to have or be there.

I think we need to take it back to the people that asked the question, that told us where we were headed and then put us into the middle of the problem.

The Methods people is where I think this really -- which way do they want to go? Because you are right; this is very hard to be able to figure

out. But also when you start using professional judgment as a catch-all, too, that raises questions. And I think that is where the crux of this whole thing comes down to. And this is just my personal opinion.

CHAIR KOTELCHUCK: Well, I would certainly be happy to sit on Methods.

MEMBER BEACH: Yes, Dave, you are a Member of that Work Group.

MR. KATZ: I thought so.

CHAIR KOTELCHUCK: No.

MEMBER BEACH: I just pulled it up. Dr. Melius is Chair, myself, and --

CHAIR KOTELCHUCK: Oh, I'm sorry. That was the Methods Group to develop the report.

MR. KATZ: No, it is the Methods Group for Dose Reconstruction Reviews.

MR. KATZ: Dave --

CHAIR KOTELCHUCK: Oh, yes.

MR. KATZ: You are on it.

CHAIR KOTELCHUCK: Okay, I am thinking of the Procedures Subcommittee, I guess.

MR. KATZ: No, that's right. That is a different group.

CHAIR KOTELCHUCK: That's right. No, no, you are right. And I certainly have sat in, and I have participated in those discussions. I guess I viewed that group as writing the report, and now that the report is written --

MR. KATZ: Well, they were actually assembled not really to write the report. They were assembled to think of the other matters of how to go forward.

CHAIR KOTELCHUCK: You are right. You are right. Because we suggest in the report that we are going to try and continue to improve.

MR. KATZ: Yes. So, anyway, as long as I don't have a quorum of the Subcommittee at that Work Group or a quorum of the Board at the Work Group, we are good. Which means I can take as many as three out of the Subcommittee to that Work Group to join that Work Group.

CHAIR KOTELCHUCK: Right, okay.

MEMBER MUNN: The Work Group already

has Josie and both Daves on it. So there is three.

MEMBER BEACH: And Dave. And also Dave Richardson.

CHAIR KOTELCHUCK: Dave Richardson, correct.

MEMBER MUNN: That's what I said, both Daves.

MEMBER BEACH: And maybe we should go and review the transcript from the meeting when we discussed that.

MR. KATZ: Yes, I can tell you, though Josie, that discussion wasn't nearly as rich as the one you just had.

I think this is very useful thoughts to add to that discussion.

CHAIR KOTELCHUCK: Well, this has been.

MS. GOGLIOTTI: I have got the page numbers written down --

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: -- where this discussion happened in the transcript, and I can

forward that to you.

MR. KATZ: Yes, Rose, if you would do that. Just send the Members that transcript reference. That would be great.

MS. GOGLIOTTI: Sure.

CHAIR KOTELCHUCK: Good. That sounds like a proper way to go. I will report to the Board that we had this discussion. That will open it up a little bit for the Board. And then I do think that Josie, your idea that we get together as the Methods Subcommittee and continue this discussion sounds good.

MR. BARTON: Dr. Kotelchuck, this is Bob Barton. Could I make a quick comment here?

CHAIR KOTELCHUCK: Surely.

MR. BARTON: Okay. I mean, there has been a lot of discussion about what sort of what the end game would be and what are we really going to derive from this.

I can give somewhat of a more simplistic, or I guess macro example of it. And Brad, you will be seeing this in short order, but

it was related to our review of the Nevada Test Site Site Profile.

One of the things we did is we actually went in and said alright, well, how are these environmental doses actually being implemented and applied? Now, at NTS there were a couple different ways we could do it. There is OTIB-18, which is their facility air sampling program. There is the actual TBD. And then there is also a TBD for Tonopah, which had different intake rates entirely.

So, what we found was that among best-estimate cases, sometimes we did see variations on which methods were being used, and it wasn't entirely clear why.

And NIOSH took a look at it. And our comment there, and kind of came back, and the end result was we said yes, you know we should really almost set up like an itemized list of procedure and put that in the TBD. In this case, you are going to assign Tonopah intakes. In this case, you are going to assign the NTS TBD intakes.

So, that is what I see as the end game. Now, maybe that is a simplistic example, but that was an area where we were in agreement that we could tighten the ship just a little bit here. So, I wanted to offer that up.

CHAIR KOTELCHUCK: Well, thank you.

MR. KATZ: Thanks, Bob.

CHAIR KOTELCHUCK: Yes. Thoughts? And particularly, you are talking about -- no, is it that we are talking about professional judgment in sites where we don't have Site Profiles?

MR. KATZ: No, at NTS we have a Site Profile and all.

CHAIR KOTELCHUCK: Yes, okay.

MR. KATZ: It is just a question of how much latitude there is in which method you are applying for certain exposures, it sounds like from what Bob is talking about.

So, I think also in that Work Group, I think let's get the transcript from this Work Group to share, for the Subcommittee to share with that Work Group, that portion, so that they can be

familiar with how this discussion has gone.

CHAIR KOTELCHUCK: Sounds good.

MR. KATZ: Yes.

CHAIR KOTELCHUCK: Alright. Well, folks, this has been useful and interesting, both, and thought-provoking, which is always good.

So, I think we have come to the end of this. And I think we have come to the end of today's discussion.

Next Steps/Future Meeting Date

MR. KATZ: Yes. Do we want to try to schedule?

CHAIR KOTELCHUCK: Yes.

MR. KATZ: Okay. And again, the driving thing is how much we can get done when, so that we can have -- so, I will just ask Rose and Grady about time frames. Is two months going to give you -- I mean considering we have the holidays in-between us, how much time do you want before a meeting where you can turn to a lot of cases?

MS. GOGLIOTTI: If we are going to do our three blind cases at the next one --

CHAIR KOTELCHUCK: Pardon?

MS. GOGLIOTTI: If we also focus on three blinds for the next meeting, from the 23rd Set --

MR. KATZ: Yes and we wanted to get into Type 2 cases and so on. We want to get a block of cases.

MS. GOGLIOTTI: -- I only need a week to put that together.

MR. KATZ: Yes.

MS. GOGLIOTTI: So, don't worry about me. I can meet any schedule.

MR. KATZ: So, Rose, are you basically just saying -- I mean you have to get back -- once Grady's folks give responses, you have to be able to review those responses, too, right?

MS. GOGLIOTTI: I have responses for everything, I believe, in the remaining AWE Sites Matrix.

MR. KATZ: Okay and is that Type 2 cases, too?

MS. GOGLIOTTI: Those are Type 1 and

Type 2.

MR. KATZ: Okay and then what about for other, the additional set?

MS. GOGLIOTTI: I have nothing -- I don't have anything in the 19th and 21st Sets.

MR. KATZ: Okay.

MS. GOGLIOTTI: I have entered it into the DR. I am just waiting.

MR. KATZ: My question is for the sets you have already in hand, you are saying, you have responses, is that already a whole meeting's worth of cases?

MS. GOGLIOTTI: Yes.

MR. KATZ: Aha. Okay. So, then there is no prep work to be done by -- other than preparing for the blind cases, NIOSH has already done its work, and you are ready to address that. That is what I am hearing.

MS. GOGLIOTTI: Correct.

MR. KATZ: Okay, super. Then we can schedule it for as soon as is practicable, really.

CHAIR KOTELCHUCK: Which would be

mid-January, yes?

MR. KATZ: Let me pull up a calendar because I have to get a Federal Register notice out.

CHAIR KOTELCHUCK: Right.

MR. KATZ: That also gets slowed up over the holidays.

CHAIR KOTELCHUCK: But the Federal Register is published every day.

MR. KATZ: It may published every day. It doesn't get cleared through the Department every day, though.

CHAIR KOTELCHUCK: Oh, okay.

MR. KATZ: The publishing part is not the problem.

CHAIR KOTELCHUCK: I see.

MR. KATZ: Okay, so -- yes, because there is about two weeks in December, beginning of January that there are not many people around in the federal government who aren't using use or lose.

CHAIR KOTELCHUCK: Yes.

MR. KATZ: There is quite a bit of it.

So, I would say we start looking at dates after --

CHAIR KOTELCHUCK: Martin Luther King's Birthday?

MR. KATZ: Yes, after Martin Luther King's -- exactly. That is exactly what I am looking at on my calendar.

CHAIR KOTELCHUCK: That is what I am looking at.

MR. KATZ: From the 17th forward, we can look at dates.

MEMBER BEACH: We have a Board call on the 25th.

CHAIR KOTELCHUCK: On the 25th?

MR. KATZ: The 25th is a Board call, yes.

CHAIR KOTELCHUCK: Okay, let me make sure I have it. Sure.

MEMBER MUNN: Let's just look at the 17th and see if it is possible to do. Can we do the 17th?

CHAIR KOTELCHUCK: Yes.

MR. KATZ: Yes.

CHAIR KOTELCHUCK: The 17th, did you mention?

MEMBER MUNN: Yes.

MR. KATZ: Yes.

CHAIR KOTELCHUCK: It's good for me.

MEMBER BEACH: It's good for me.

MR. CALHOUN: Yes, it works for me.

MR. KATZ: Well, so I have heard two of you.

CHAIR KOTELCHUCK: You know what? Is the 18th possible?

MR. KATZ: No.

CHAIR KOTELCHUCK: At a personal level.

MR. CALHOUN: Yes, it works for me.

CHAIR KOTELCHUCK: How is the 18th? My wife is having a cataract operation on the 17th, and I would like to be with her.

MR. KATZ: Oh, absolutely, right.

CHAIR KOTELCHUCK: But it is not necessary but if we can. So, is the 18th okay, Wednesday the 18th?

MEMBER BEACH: I have a class but I can change it.

CHAIR KOTELCHUCK: If that were possible, that would be good. It sounds like Wednesday the 18th.

MR. KATZ: I haven't heard -- I have only heard you two. How about Wanda and Brad?

MEMBER CLAWSON: This is Brad. Now, if we do it on the 18th, I can only be there until, it would be 3:30. I have a meeting on that day, but I can work up until then.

MR. KATZ: Is that 3:30 your time or our time?

MEMBER CLAWSON: Your time.

MEMBER BEACH: What about the 24th? Does that work for anybody?

CHAIR KOTELCHUCK: Let's see.

MR. KATZ: The 24th is wide open for me.

MEMBER MUNN: The problem with that is we have a Board call the next day.

MR. CALHOUN: The week with the 24th in it is the HPS Midyear.

MR. KATZ: Okay.

CHAIR KOTELCHUCK: Aha. I really --

MR. KATZ: What about the 19th?

MEMBER MUNN: Or for that matter, you know, it is probably a wiser idea to say away from the 19th and 20th. Does everybody go ape if we suggest a Monday?

CHAIR KOTELCHUCK: Which day?

MEMBER MUNN: Could we survive doing it on the 16th?

MR. KATZ: Well what --

CHAIR KOTELCHUCK: On the 16th?

MR. KATZ: No, we cannot. It is Martin Luther King Day.

What is the trouble with the 18th?

MEMBER BEACH: No trouble. Oh, Brad had a --

MR. KATZ: Oh, Brad has a conflict at 3:30. We are normally -- okay.

Okay, how about the 23rd? That is a Monday that is okay.

CHAIR KOTELCHUCK: Yes.

MEMBER MUNN: That's good.

CHAIR KOTELCHUCK: The 23rd.

MR. CALHOUN: Once again, I will be at the HPS meeting.

MR. KATZ: Oh, sorry. I forgot. I'm sorry.

MR. CALHOUN: That's alright.

MEMBER MUNN: The other option, of course, is doing it the preceding week, like on the 12th.

MR. KATZ: No, it is getting too soon, given the Department's --

CHAIR KOTELCHUCK: Aha.

MR. KATZ: How about the 30th?

MEMBER MUNN: That works.

MEMBER BEACH: That works.

CHAIR KOTELCHUCK: Let me see. Let me try that, the 30th. After the call -- the 30th works well for me.

MEMBER MUNN: It's okay here.

MR. KATZ: Brad?

MEMBER CLAWSON: The 30th would be

fine.

MR. KATZ: And John Poston? John, are you still on?

MEMBER POSTON: Yes, I'm here.

MR. KATZ: How is the 30th? It is a Monday.

MEMBER POSTON: Yes, any day.

MR. KATZ: Okay, so it sounds like -- Josie, did you say the 30th is okay for you?

MEMBER BEACH: Yes.

CHAIR KOTELCHUCK: Good.

MR. KATZ: And it is good for Grady, right?

MR. CALHOUN: Yes.

MR. KATZ: Okay.

CHAIR KOTELCHUCK: Excellent.

MR. KATZ: Okay, so let's pen in the 30th. I will ask David.

CHAIR KOTELCHUCK: Right.

MR. KATZ: But we have a quorum in either event.

You want to pick another -- the 31st,

is that just as good, in case Dave needs some flexibility?

MEMBER MUNN: Yes.

CHAIR KOTELCHUCK: I think it is. Let me just check. One second. Yes, the 31st is fine.

MEMBER POSTON: Is that a Tuesday or a Thursday?

CHAIR KOTELCHUCK: It's a Tuesday. That is going to be hard for me. I have class on Tuesday and Thursday.

CHAIR KOTELCHUCK: Okay.

MR. KATZ: What about February 1st? That's a Wednesday.

MEMBER POSTON: Yes, I could do that.

CHAIR KOTELCHUCK: I could do Wednesday.

MR. KATZ: Okay, is that good everyone, February 1st, if necessary?

CHAIR KOTELCHUCK: As a backup.

MR. KATZ: Backup.

MEMBER CLAWSON: Ted, I have a meeting just like John does, he has -- every Wednesday, I

have a lock-in meeting I have to do. But like I say, it is just at the very end of it there.

MR. KATZ: Okay, so that is fine. We will do it as a backup and ending an hour earlier won't be the end of the world.

CHAIR KOTELCHUCK: Right, exactly.

Okay, so the 30th of January.

MR. KATZ: The 30th or February 1st if the 30th doesn't work for Dave.

CHAIR KOTELCHUCK: That's right. Sounds good.

MR. KATZ: Sounds good. Okay.

Adjourn

CHAIR KOTELCHUCK: Thank you all.

MEMBER MUNN: You bet.

MS. GOGLIOTTI: Thank you.

MR. KATZ: Thanks, everybody.

MEMBER MUNN: Happy Gobble Day.

CHAIR KOTELCHUCK: Right. Right, Happy Thanksgiving.

MR. KATZ: Absolutely. Take care.

CHAIR KOTELCHUCK: Bye-bye, everyone.

(Whereupon, the above-entitled matter went off the record at 3:50 p.m.)