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 REVIEWS

+ + + + +

WEDNESDAY
APRIL 2, 2014

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The Subcommittee convened telephonically at 10:30 a.m. Eastern Daylight Time, David Kotelchuck, Chairman, presiding.

PRESENT:

DAVID KOTELCHUCK, Chairman
BRADLEY P. CLAWSON, Member
WANDA I. MUNN, Member
DAVID B. RICHARDSON, Member
MARK GRIFFON, Member

ALSO PRESENT:

TED KATZ, Designated Federal Official
BOB BARTON, SC&A
HANS BEHLING, SC&A
KATHY BEHLING, SC&A
RON BUCHANAN, SC&A
ZAIDA BURGOS, NIOSH
GRADY CALHOUN, DCAS
DOUG FARVER, SC&A
ROSE GOGLIOTTI, SC&A
DeKEELY HARTSFIELD, HHS
JOHN MAURO, SC&A
MUTTY SHARFI, ORAU Team
SCOTT SIEBERT, ORAU Team
MATT SMITH, ORAU Team
JOHN STIVER, SC&A

C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

10:30 a.m.

(Roll call.)

MR. KATZ: Okay, Dave, so it's your agenda. Just let me remind everyone on the line to please mute your phones except for when you're speaking, *6 if you don't have a mute button, either way. And same thing, *6 again to come off of mute.

And, Dave, it's your agenda.

CHAIRMAN KOTELCHUCK: Alright. We were finishing the last several of the Oak Ridge cases. And I don't know which one folks want to start with.

We have 247.1 and .2 on our agenda. And then what was the tough one, one that folks said to avoid until we were ready for a long discussion?

MR. SIEBERT: That would be 268.1

CHAIRMAN KOTELCHUCK: Do folks want to start with 268.1?

MEMBER MUNN: Have we wrapped up

237 yet?

CHAIRMAN KOTELCHUCK: No, we haven't wrapped it up -- well, then you want to go in order. Okay, the lowest one is 247.1 and .2

MEMBER MUNN: Well, not necessarily in order, it just wanted to pick up where we left off, and I thought that's where we did. We'd started talking about 247, had we not?

CHAIRMAN KOTELCHUCK: We started, yes. And it was left open. Then we have open 248.1, 249.1. Let's go to 247, see where we're at. We'll refresh ourselves. And then that may be open for coming back to at a later time.

MEMBER MUNN: Yeah.

CHAIRMAN KOTELCHUCK: I don't remember which one that Grady was going to check out. And I don't want to rush him on that.

Could we put 247.1 up on the screen?

MS. GOGLIOTTI: Yeah. Can someone give me the rights to the screen? I don't know

how that works.

MR. KATZ: Yeah, John can -- John should have sent you a link to Live Meeting. Do you have that, Rose?

MS. GOGLIOTTI: I'm on the Live Meeting, yes.

MR. KATZ: Okay. But if you joined, there are different links by which you can join. You need to join by the presenter one. And if you joined by that, then you --

MS. GOGLIOTTI: Oh.

MR. KATZ: But by active sharing, you take over the screen.

MS. GOGLIOTTI: Okay, I'm going to have to rejoin then.

MR. KATZ: The first link in the long -- there are multiple links. But the first link, I think, it will indicate it's the presenter's link. Or whoever, John haven't you put up something already or not?

MS. GOGLIOTTI: The first link I joined through. It says present in the title.

MR. KATZ: Right.

MEMBER MUNN: Well, I think Beth was good enough to send us the current version last night. So I now have it.

CHAIRMAN KOTELCHUCK: Oh, okay. Well, I can go back to Outlook and --

MR. KATZ: Well, John Stiver, are you not on the line?

MR. STIVER: I'm on the line. I'm opening that up right now.

CHAIRMAN KOTELCHUCK: Okay, fine, fine, good.

MR. STIVER: I'll transfer it to Rose once it's up and going here. Okay.

CHAIRMAN KOTELCHUCK: Alright, looks like something -- there we are. There we are. 229 and we're going to go to 247.1 and .2.

MR. STIVER: Okay, here we are.

CHAIRMAN KOTELCHUCK: Okay. Let's see. Oh, right, okay, this was the one with the incorrect prorating of the person's time.

MR. CALHOUN: That's the one that we're going to go back and look at right away.

CHAIRMAN KOTELCHUCK: That's right, okay.

MR. CALHOUN: That's not going to happen for like a few days at least.

CHAIRMAN KOTELCHUCK: Okay. So let's go ahead to 248.1. Since .2 was the same issue. Okay. Also, okay, this is the B data. There's nothing to discuss at this point.

You folks at NIOSH were going to take a look at this and come back to us at a later time with your recommendations. So kind of a move forward.

MR. CALHOUN: Yeah, this is Grady. I had told you that I hoped to get that to you today and that's not going to happen.

CHAIRMAN KOTELCHUCK: Okay. Well, fine. Let's then do 249.1.

MR. KATZ: This is the same.

CHAIRMAN KOTELCHUCK: This is the same, okay. Sorry. Then we are at 268.1.

And this is the one that folks alerted us was going to be a complicated one.

So, Doug, do you want to start 268.1? Or whoever would wish to start.

MR. FARVER: I'll go ahead and start. This is Doug and then I'll -- I want to turn it over to Scott real quick.

MEMBER MUNN: So we're skipping over 250, right?

CHAIRMAN KOTELCHUCK: Right. That was, I thought, resolved.

MR. KATZ: That was resolved and closed.

CHAIRMAN KOTELCHUCK: Yeah.

MR. KATZ: Yeah.

MEMBER MUNN: Okay.

MR. FARVER: The finding has to do with an incorrect procedure for reporting the scaling factor from the Y-12 doses. The scaling factor was used with the coworker doses to obtain the claimant doses.

And it is a messy, messy

calculation. And extremely complex. And with that being said, I'm going to turn it over to Scott because he probably can explain it better.

MR. SIEBERT: Yeah, this is Scott. I would call you a coward, except now I'm going to turn it over to Matt Smith who can now explain it better.

MR. SMITH: Alright. This is Matt with the ORAU Team.

CHAIRMAN KOTELCHUCK: By the way, folks, my line is -- I'm not getting quite the volume I'd like. Could you speak just a little louder?

MR. SMITH: Sure. How's that?

CHAIRMAN KOTELCHUCK: Oh, much better.

MR. SMITH: Okay.

MEMBER MUNN: Thanks, Matt.

MR. SMITH: You bet. This is a claim where, in the early days of the project, we had a unique method for doing coworker dose

that was developed by the statisticians at ORAU. It involved taking a look at a worker's dose at Y-12 in the post-1960 to roughly 1965 time frame. And then by judging that dose and it's magnitude, being able to actually scale the coworker dose that was needed for the earlier time period, before 1960, in a statistical manner.

CHAIRMAN KOTELCHUCK: Was this an extrapolation?

MR. SMITH: That would be the best simplified way to explain.

CHAIRMAN KOTELCHUCK: Okay.

MR. SMITH: The statistical method required at least five quarters of data after 1960. And it also required that you kind of take a look at the workers' job functions and make sure that what they were doing after 1960 was roughly the same as what they were going before that.

What's happened over time is that we developed another OTIB called OTIB-20. And I

think everybody on the call is probably pretty familiar with that document by now.

And what that did was set the stage for a little bit more simplified way of taking a look at external coworker dose. At this time, and actually for several years now, a Y-12 coworker dose was switched over from this older method to this method that's the same as all the other sites based on OTIB-20.

So, keeping that in mind, things like Procedure-42, which described how this previous method was to be implemented, that procedure is not even active anymore. The workbook also is not even active anymore.

But with respect to the claim at hand, after taking a look at it, we agree that the statistical factors that were calculated in the claim are not correct. This was a worker who terminated their employment, I believe it was after the first quarter of 1962.

So he had exactly five quarters of data. So he had the minimum required. But

then he terminated. And what happened with the tool is [that] the tool applied values of zero for all the remaining quarters, all the way up to 1965.

And what that did is it artificially lowered the magnitude of his comparison coworker dose.

CHAIRMAN KOTELCHUCK: Right, of course.

MR. SMITH: What should have been done, and it is called out in the legacy Procedure-42, is the calculation should have been truncated to look at only those first five quarters. Not the 20 possible quarters that there were.

So we agree that the -- what we call the scaling factor, which is not -- which again there's like a little bit of confusion on the naming conventions with things. But in any event, what we would call -- I'll call it an adjustment to get through the conversation cleaner. We agree that the adjustment factor

was not as high as it needed to be, and the factor should have been 3.77.

There is a PER with respect to the implementation to the new Y-12 coworker dose. I took a quick look at it.

CHAIRMAN KOTELCHUCK: Could we scroll down -- pardon me a second. Could we scroll down just a little on the screen now, on the PER? Thank you.

MR. SMITH: I did take a look at the data in the current coworker OTIB, I believe, in preparation for a meeting, whenever it was, two times ago. And when you're judging it by the 95th percentile, and also considering the construction trade worker correction factor of 1.4 [which] is going to get folded in, the PER process will likely give this claimant a higher dose.

CHAIRMAN KOTELCHUCK: Okay.

MR. SMITH: The bottom line is, on this particular claim, it is also another one like the ones we talked about yesterday, slated

for a PER evaluation.

And the method that was used at the time is now what we would call an "inactive" and is not used anymore.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER MUNN: Matt, have you done a rough calculation to see how that scaling factor is going to affect the PoC in this particular claim?

MR. SMITH: I don't know that I ran it all the way through PoC values. But I did, I think, a rough judgment of just eyeballing the dose. In other words, the magnitude of the dose that would have been applied for coworker.

MEMBER MUNN: Right. And in your assessment, is this going to create a major change with respect to the claimant?

MR. SMITH: Probably not a major change. Oh, with respect to what the decision was?

MEMBER MUNN: What the PoC is likely to be.

MR. SMITH: I would not want to speak to that without running the PoC in collaboration with Scott and his team.

CHAIRMAN KOTELCHUCK: Sure. And under any circumstance, that would be an interim because we're awaiting PER. Right?

MR. SMITH: That is correct. The other thing I don't know with respect to this claim is if it's already been reworked due to another cancer being reported.

CHAIRMAN KOTELCHUCK: Yeah.

MR. SMITH: I'm not sure of the exact claim status right now.

MR. CALHOUN: I can check. I should be able to check that pretty quick. If the document that is driving the PER is already complete, then we can move ahead.

We'll do a quick evaluation and see if it will affect it and we can move ahead. But if the document's not complete, we have to wait until that's complete before we can do the PER.

CHAIRMAN KOTELCHUCK: Right. But

is there agreement by SC&A and NIOSH that this -- is this issue is resolved? And that this error can be corrected? Or not?

MR. FARVER: Well, I have a couple of questions. When did this stop being used, this process?

MR. SMITH: Upon publication of OTIB-64. And I'll have to take a minute or two to pull that one up to get a publication date for you.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Because I have a feeling we're going to run into this again.

MR. SIEBERT: OTIB-64 was in April of 2013.

MR. FARVER: Okay.

MR. SMITH: Well, that might have been the latest publication on it. Let me -- that was a Rev[ision] 2. Let me just go to the publication record. I'm almost there.

CHAIRMAN KOTELCHUCK: Okay.

MR. SMITH: And initially

published as Rev 0 in 2009.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Does the 2009 Rev take care of it? Rev 0?

MR. SMITH: Yeah. Upon publication of OTIB-64, we then deactivated OTIB-13 and Procedure-42 and the tool that's the one we've been looking at with respect to this claim.

MR. CALHOUN: Just for a little background information, too, I just looked this case up and it's a little bit less than 39 percent right now. So it would take a pretty significant swing in dose to make that compensable.

MR. FARVER: My point is there's been a lot of Y-12 cases completed over the years. And we're in another position here where we've got to wait for a PER that may happen at some point.

MR. CALHOUN: Well, it will happen at some time -- like I said, even this process

that we're doing right now causes PERs. We try to get through them. We've got them. We've got a system, we've got them logged, we've got them scheduled. It's just a matter of getting them done.

So in this case we will take another look at it to see if it is likely to go over. If it's not likely to go over, there's no sense in rushing it.

CHAIRMAN KOTELCHUCK: Right. Although we actually, in this, for Oak Ridge, we do have several now that are waiting on the PER.

MR. CALHOUN: Like I said yesterday, we have thousands. We're probably --

(Simultaneous speaking.)

CHAIRMAN KOTELCHUCK: Yeah, yeah. Okay, true.

MR. KATZ: Back to your question though, Dave, it sounds like they're in agreement that -- I mean, because the NIOSH

folks just said they made this error and it needs to be corrected. So I think it's resolved that it's closable.

MR. FARVER: I mean, have we reviewed that procedure and OTIB? SC&A?

MEMBER MUNN: Which procedure?

MR. FARVER: 42, and what was the OTIB?

MR. SMITH: OTIB-13. I believe they came up a long time ago.

MR. FARVER: Have we reviewed them since this change?

MR. KATZ: The OTIB-42 is -- Procedure-42 is obsolete now, is what they've just told us.

MR. FARVER: Okay. Then what was the procedure that took over this process?

MR. SMITH: OTIB-64 would have superseded both OTIB-13 and Procedure-42. And that would have, again, the publication date for OTIB-64 is August of 2009.

MR. FARVER: Right. Have we

reviewed that?

MR. SMITH: That I don't know.

MEMBER MUNN: We worked PROC-42 over in Procedures, as I recall.

MR. KATZ: Wanda, it's 64. OTIB-64.

MEMBER MUNN: Yeah, but it was PROC-42 originally, wasn't it?

MR. KATZ: Well, the question now is, has Procedures reviewed OTIB-64? That's the question on the table right now [that] Doug's asking.

And I expect it has been reviewed, at least one version of it. But that's something we can look up. It really doesn't have a bearing on closing this case.

MR. FARVER: Well, yes it does, because then we don't know if it's been corrected or not until we actually review what's been written in its place.

MR. KATZ: Well, the issue, again, let's just go back on this about correcting

cases. I mean, the issue is not correcting cases. It's resolving whether a finding is correct. And if the finding is correct, then it can be -- or is agreed upon, it can be closed. And that's what we do.

The correction of cases is something that goes on independently of the Subcommittee.

MR. FARVER: So if they wrote something that does not correct the problem, it's okay that they keep making the same problem?

MR. KATZ: Well, I mean, we just had a discussion about where the problem was, in the former procedure that's been made obsolete.

MR. SMITH: Let me interject real quick. In a sense, no correction to Procedure-42 was made. The entire method that's outlined in both Procedure-42 and its companion OTIB, which is 13, that entire statistical method of looking at coworker dose and being able to scale it upward based on an

individual's recorded dose, that whole method was abandoned.

You don't use that method for Y-12 or any other site anymore.

CHAIRMAN KOTELCHUCK: Right.

MR. SMITH: We abandoned that and what we did is we put Y-12 in line with the methodology that was then in use for all the other sites, which is based on OTIB-20. And the procedure itself does call out the proper way to deal with a claim where somebody has terminated their employment before the end of 1965.

As I read through the SC&A auditor's report, they did find that the other claims that had been looked at were in okay shape. In looking at the tool itself, I did not find any automated logic that was put in there to take a look at available dates for dosimetry.

So that's probably the root problem here, is there wasn't an automated function in the tool to take a look at just how many quarters

of data were actually available.

CHAIRMAN KOTELCHUCK: But do I understand that although the procedure was abandoned, or really superseded, that those that were already done, that were looked back at to make sure that the new procedure was used?

MR. SMITH: Yes, that's the intent of the PER. Upon completing OTIB-64, we recognized that, especially at 95th percentile values, that the dose could be greater than what would typically be found by applying the older method that was in place.

CHAIRMAN KOTELCHUCK: Okay.

MR. SMITH: So a PER was recommended. In other words, all claims that made use of TIB-13 and PROC-42 would be evaluated down the road.

CHAIRMAN KOTELCHUCK: Fine.

MEMBER MUNN: And that's going to be an enormous undertaking, David.

CHAIRMAN KOTELCHUCK: It will be, I gather.

MR. FARVER: Well, in my opinion, SC&A should be reviewing the process that supersedes the one that has been discontinued.

MR. KATZ: Okay, thanks, Doug. That's duly noted.

MR. STIVER: This is John Stiver. I asked Steve Marschke if we looked at doing a search through the first three sets of procedures. I'm not finding OTIB-64 in there. I know it's not in the Set 4 or 5. But I'm checking with Steve just to make sure.

CHAIRMAN KOTELCHUCK: Okay.

MS. K. BEHLING: And this is Kathy Behling, I'm on the BRS system and I don't see OTIB-64 on BRS as being reviewed. We did review OTIB-20.

MEMBER MUNN: I lost you at the end, Kathy.

MS. K. BEHLING: We did not review OTIB-64, according to what I'm looking at on the BRS, but we did review OTIB-20.

MEMBER MUNN: Okay, that would be

my source for information, so I'm glad you have it up, thanks.

CHAIRMAN KOTELCHUCK: Well, people are checking.

MR. SMITH: My rough guess is that OTIB-64 probably has not been reviewed, because I would have recalled probably going on and dealing with comments on it.

CHAIRMAN KOTELCHUCK: Yeah.

MR. SMITH: On a positive front on that, again, OTIB-64 followed the methodology that has been reviewed by everyone with respect to all the other sites. Again, any of the other external coworker TIBs, and probably a half a dozen or more of those have been under review. And that same methodology was used on Y-12.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: Okay, thanks, Matt. That is actually making some sense. Because this is -- I guess what I'm hearing you say is it's specific to the site. And we haven't had that site Work Group operating in a long time.

MR. SMITH: That's probably right.

MR. KATZ: That makes a lot of sense, Matt. And we can put this on our list of -- because SC&A's collecting anyway right now a list of procedures and Site Profiles that haven't been reviewed or due for new reviews and so on. So this can just land right flatly on that list.

CHAIRMAN KOTELCHUCK: In terms of this Committee, I don't think there's anything further that we can or should be doing. That is, with respect to the Committee, it sounds like this should be closed pending SC&A review.

MR. KATZ: Well, it's not pending, Dave, I mean you're correct, there's nothing more for this Subcommittee to do. It reviews cases and resolves its findings.

So, yes, that's something that would go on, either under Procedures or we'll reconstitute Y-12 to address the coworker model there. But that's independent of this Subcommittee.

CHAIRMAN KOTELCHUCK: Right, so what should we write as we move on?

MR. KATZ: So I think you can make a note that --

CHAIRMAN KOTELCHUCK: Referred for Procedures.

MR. KATZ: -- it hasn't been reviewed, but you can close the case for review.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: Because you agree that there's a problem with the case and you've identified the problem.

CHAIRMAN KOTELCHUCK: Right.

MEMBER CLAWSON: And it's being corrected by a PER review of all cases, too, is one of the things you need to put in there, David.

CHAIRMAN KOTELCHUCK: So what do we write in leaving this? Referred to Procedures Work Group?

MR. KATZ: Well, you don't need to refer it. I mean, again, this is just a case

that you reviewed. And the procedure gets -- you know, the procedures get reviewed independent of this Subcommittee.

CHAIRMAN KOTELCHUCK: Right. So it's just closed.

MR. KATZ: Yeah, it's closed. It has a solution. That solution, like all solutions that NIOSH uses, gets reviewed by Procedures and by the Work Groups.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: And that will take care of that aspect of the issue.

CHAIRMAN KOTELCHUCK: Okay. Well, then if that is how -- it's closed in terms of --

MEMBER MUNN: Yeah, I would simply comment that the error has been identified and noted by all concerned. Agreed that it will be covered in the PER and close it.

CHAIRMAN KOTELCHUCK: That sounds good.

MR. KATZ: And can I use this break

to check. I know Mark was trying to attend, but he may not have had a chance to speak up.

MEMBER GRIFFON: Yeah, Ted, I am online now.

CHAIRMAN KOTELCHUCK: Oh, Mark. Good, thank you.

MR. KATZ: Mark I just need to -- so since Mark's on, let me just, for the record, address his conflicts, which is Mound. He's conflicted with all individual dose reconstructions from Mound. So let me say that for the record.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: And then we can move on.

CHAIRMAN KOTELCHUCK: Okay, excellent.

MEMBER RICHARDSON: Okay, and this is David Richardson. I'm going to -- if I could take this break to say, I agree. Congratulations on wrapping this one up. And I have to leave now.

CHAIRMAN KOTELCHUCK: And thank

you very much for being on this morning as long as you were. So, thank you.

MEMBER RICHARDSON: Thank you.

MR. KATZ: Alright, thanks a lot.

CHAIRMAN KOTELCHUCK: Take it easy.

MEMBER MUNN: Thank you, David.

CHAIRMAN KOTELCHUCK: All right. If that's finished, let's go on. I think 294 is the next one 294.1.

MR. KATZ: The next one --

CHAIRMAN KOTELCHUCK: Oh no, we have observations, sorry. And we have 2 and 3. 268.2.

MR. FARVER: Well, we should be ready to go to 269.1. We covered --

MEMBER MUNN: Yeah, observations are closed, I believe.

CHAIRMAN KOTELCHUCK: Oh, okay.

MR. FARVER: We covered 268.2, we covered 268.3.

CHAIRMAN KOTELCHUCK: Good.

MR. FARVER: And we covered the observations. I have 269.1 as the starting point.

CHAIRMAN KOTELCHUCK: Let's go.

MR. FARVER: Okay.

MEMBER MUNN: Do we have any new findings from NIOSH? Anything new on that?

MR. FARVER: I do not see one.

MEMBER MUNN: I don't either.

MR. FARVER: But we haven't discussed this anyway.

MR. SIEBERT: I'm sorry, this is Scott. Are you asking about 169.1?

MEMBER MUNN: Yes. I'm showing closed on the copy I have.

MR. SIEBERT: That is only SC&A's recommendation. We haven't discussed it yet. And we did not have additional comments past the first response. So I think we're just working on starting on this one. We don't have any additional comments. We're just going to start talking through it.

CHAIRMAN KOTELCHUCK: Okay, let's --

MEMBER MUNN: Okay, SC&A suggests closing it, so that's good. Alright, go ahead.

MR. FARVER: Okay, let me call up the file.

MR. CALHOUN: Scott, this is actually 269.1.

CHAIRMAN KOTELCHUCK: Correct.

MR. SIEBERT: I'm sorry, did I say something else?

MEMBER MUNN: No, I don't think so.

MR. SIEBERT: Yes, 269.1, sorry.

MR. FARVER: Okay, 269.1. The finding has to do with incomplete accounting of missed dose. And I believe it was -- they assigned it for three quarters instead of four quarters.

MEMBER MUNN: And do we want anything done for the PoC?

MR. FARVER: It looks like it was about one quarter off. Like 15 millirem. PoC

was 45 percent. So it's probably not going to impact it. It was just another QA concern. You know, something that should have been caught.

CHAIRMAN KOTELCHUCK: NIOSH folks? Do you agree that we should close it?

MR. SIEBERT: Yes, we agree that it has minimal impact on PoC. We did review it to ensure that.

CHAIRMAN KOTELCHUCK: Okay. Then I think we can close it.

MEMBER MUNN: Yes. Agreed.

CHAIRMAN KOTELCHUCK: Okay. Good. Again, no objection, let's move on.

MR. FARVER: Okay, 269 observation. I believe this observation goes back to review of Site Profiles where we identified the lack of adequate potential environmental external exposures. And it looks like it's just repeating that, which has been identified in SC&A's review of Site Profile about environmental exposures [that]

may not be accurate.

Once again, not much that can be done here with this claim. The claim was assessed by the approved TBD. And so they are correct, questions should be handled by the Site Profile review.

And I would image that that's where it would get handled at some point.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Second observation. Looks like NIOSH --

MEMBER MUNN: But that's --

MR. FARVER: Go ahead.

MEMBER MUNN: There really is nothing that needs to be done there. It's just an observation that the claim was done under the TBD at the time.

MR. FARVER: Yes, and the second observation is pretty …. -- well, it's not similar, it looks like they used the Y-12 environmental intakes for the K-25 dose. And we thought it would have been more appropriate

to use the K-25.

But they are correct, the Y-12 gives a little higher dose, so it's claimant favorable.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER MUNN: Comments noted and accepted.

CHAIRMAN KOTELCHUCK: Let's move on.

MR. FARVER: 294. Incomplete assignment of missed dose for '57, '59 and '60.

MEMBER MUNN: Doesn't look like anything more to be done from. Data entry error is noted and it's indicated as a QA concern. No other action I can see.

CHAIRMAN KOTELCHUCK: Right, and that lowers the exposure, right? The missed doses were zero dosimeter results, right?

MR. FARVER: Yes, and I believe that if you scroll down to the bottom I've got the dosimetry card there. So you can actually see the zeros and so forth.

CHAIRMAN KOTELCHUCK: Right. But

I don't know that we need to look at it if NIOSH agrees. And whatever the PoC was, since it was less than 50 percent, this would only lower it.

MR. FARVER: Well, it would raise it.

CHAIRMAN KOTELCHUCK: Pardon?

MR. FARVER: It should raise it.

MEMBER MUNN: It should raise it, I think.

MR. FARVER: Not substantially, I mean.

CHAIRMAN KOTELCHUCK: I'm not quite sure why. Wait a minute, there were --

MEMBER MUNN: The missed doses.

CHAIRMAN KOTELCHUCK: Right. Four, four and seven zeros instead of three, three and three. Oh, I'm sorry. Yeah.

MR. FARVER: And they identified that this was a data entry concern. Because it appears that the information was contained in the dosimetry card, but it was not entered into the dosimetry file that gets loaded into the

workbook.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: This is another data entry concern.

CHAIRMAN KOTELCHUCK: Right. And doesn't change the final result, right, NIOSH folks?

MR. FARVER: No, but there's probably other cases where they have the same problem.

MEMBER MUNN: And they indicated they're looking for them. So that's all we can expect.

MR. FARVER: Okay.

MEMBER MUNN: So that is closed.

CHAIRMAN KOTELCHUCK: I think it is reasonable to close it. Point-2?

MR. FARVER: Let me finish this up, I'll be right there. Two. Incorrect cerium-144 intake value was used.

MEMBER MUNN: Well, that's closed, though.

MR. FARVER: No, it's not.

CHAIRMAN KOTELCHUCK: No, it isn't. These are our first reviews.

MEMBER MUNN: Recommendation to close. I see it.

CHAIRMAN KOTELCHUCK: That's right.

MR. FARVER: In this case the intake was overestimated by a factor of 10. So the correct intake should have been 426 dpm per day. And they used 4,263 dpm per day.

So it can go either way. Sometimes they can be off by 10 or 100 in either direction.

CHAIRMAN KOTELCHUCK: Certainly worrisome.

MR. FARVER: Once again, it's claimant favorable, it's not going to impact the case.

CHAIRMAN KOTELCHUCK: That's right. So that's just -- then it sounds like it can be closed.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Alright. Any concerns, anybody, that you want to raise?

MEMBER CLAWSON: Well, this is Brad. I'll tell you what one of my concerns is. What are we classifying this as a finding, or is this a QA issue?

MR. FARVER: It's a QA concern.

MEMBER CLAWSON: Right, well, you know, we've been pushing through the years here for quite a while. It's just amazing to me that, I guess, you know, and I guess these are older ones. But the QA issues that are coming up on this stuff, it seems like to me it's increased.

CHAIRMAN KOTELCHUCK: It's what?

MEMBER CLAWSON: It's increased. We're seeing more and more. And that's just bothersome to me. You know, the thing is -- and I know that as we get into the newer ones and so forth like that, we're going to see these going down.

But we're seeing so many QA issues

coming up that it just troubles me. I just wanted to make sure we don't lose sight that part of our issues is to make sure this is being done right. And to be able to see this many QA issues does bother me.

CHAIRMAN KOTELCHUCK: Appropriately so. But I do trust that when we write our report, these are the kinds of issues that we will address, and be able to look at when the dose reconstructions were done.

And hopefully, you know, what we will find is that there may have been more in the past and that there are fewer now.

MR. STIVER: Yeah, this is Stiver. I've just put up the summary table to give you an idea of when these reconstructions were done.

CHAIRMAN KOTELCHUCK: Yeah.

MR. STIVER: From 2004 to 2009, so we are kind of casting back on the past a lot.

CHAIRMAN KOTELCHUCK: Right, good point. Okay. So let's go back to --

MR. FARVER: Okay, are you ready for 324.1?

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: When you're doing the external doses, we found an extra 20 millirems, which is kind of --

CHAIRMAN KOTELCHUCK: One second, we're waiting for material to come up on the screen.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: There we go, thank you.

MR. FARVER: Okay. Like I said, we found an additional 20 millirem of dose for 1986 that was really a neutron dose, but was assigned as a photon dose. And that was the basis for the finding.

After doing some digging and searching through files, you can scroll down to the bottom of the last exhibit. And that's Exhibit C, 1986 Dosimetry Input Files.

CHAIRMAN KOTELCHUCK: I'm reading

the NIOSH response from this month.

MR. FARVER: And if you go to the one that's marked X-10-QC, which is the first green spreadsheet excerpt at the bottom. Let me know when that's up and I'll start talking about it.

CHAIRMAN KOTELCHUCK: Okay. I think maybe we need to scroll down.

MR. FARVER: This is the input file that a dose reconstructor loads into the worksheet.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: It contains all of the dosimeter information for all of the years, okay. At some point prior to this, the data is entered into -- I don't think it's entered into this spreadsheet. I think it's entered into a program that interprets it and puts it in this format. But since we don't really know what the process is to enter the data, I'm --

MR. SIEBERT: No, let's not say that. This is Scott. We have gone over this

--

(Simultaneous speaking.)

MR. FARVER: We don't know how they enter data into this worksheet.

MR. SIEBERT: The data is entered by the data entry individuals into a data entry QA spreadsheet. That data is reviewed. And then it is given to the dose reconstructor who reviews it as well. And they import it into the tool

MR. FARVER: Okay, so this X-10-QC spreadsheet is the very one that has been entered into by your data entry people? Is that correct?

MR. SIEBERT: That is correct.

MR. FARVER: There's no other step where something is loaded into this spreadsheet?

MR. SIEBERT: Correct. The data entry people manually enter that information.

MR. FARVER: Okay. So the one that's labeled X-10-QC is the data entry one.

And if you see over that the last two entries in the green are the 10 and the 20. That's neutron data that's entered in the wrong position.

Now, I don't know how that 20 got down there with the green background, if they're entering it.

CHAIRMAN KOTELCHUCK: Well, there's nothing with green background on our screen. But the 10 and the 20 are there.

MR. FARVER: Well, it should be for the X-10-QC one. You'll see a 20 in the green background.

CHAIRMAN KOTELCHUCK: Well, I -- okay, hold it.

MR. FARVER: This is the one that's a --

CHAIRMAN KOTELCHUCK: Oh yes. Okay, here it comes, yes, okay.

MR. FARVER: This is the file that the data entry people key the data into. And you can see there's a 10 and a 20 under the

shallow and the deep. And it should be neutron data.

So apparently they entered it twice. Two 10s and two 20s. And I don't know how they got the green background on the 20 because I tried to enter data in and the background does not carry over.

So that's why I was concerned that there was some other process going on. Because I don't know how that got there.

MR. SIEBERT: It got there because the data entry person highlighted it in green to point out that it's data that is entered.

MR. FARVER: Okay. And, Scott, I don't know if you know this, are there procedures that tell them how to do all this?

MR. SIEBERT: Our data entry folks, there's not procedures as project procedures, but they do have working aids and guides in the data entry area that they work from, that are updated as they determine the types of data that exist for each site.

MR. FARVER: And so they enter the data and then somebody comes back behind them and verifies the data. And then it goes to the dose reconstructor who also verify.

MR. SIEBERT: Correct.

MR. FARVER: Okay. So the first picture was the data entry. The second one, with the DR extension, is the one that the dose reconstructor did. And typically when we see the changes by the dose reconstructor, they'll put them in the red type to indicate it's a change.

CHAIRMAN KOTELCHUCK: Okay. If folks could scroll -- John, if you could scroll just a little bit down.

MR. FARVER: That has been my experience over the years. And sometimes they'll even put little comments in to explain why they made that change.

We see this a lot with the individual dosimeter readings, where they're less than the LOD. And the dose reconstructor

will go in and manually put in a zero. Because it's less than the LOD. We've seen that quite a bit.

But in this case, it looks like the person deleted the 10. Did not delete the 20. But added the 10 and the 20 to the neutron dose. And also corrected the annual totals. They dropped back down by 30 to 353, the correct value. So that's what that shows you.

And then this is the file that got loaded into the workbook to do the dose calculations. Part of the problem -- well, what happened next was when the workbook sums up the annual dose, it sums up the quarterly doses. It doesn't take that annual dose number of 353 that's been corrected, and use that number. It sums up the values from the 70 and it goes all the way down like 200 rows and sums up everything that's in the column.

And that's a little bit described down there in the text. It sums up everything in the BN column.

If you move down to the next workbook, the next little clip comes from the workbook itself. And under the input data tab at the beginning of the workbook -- it's column M, it's not column E -- it sums up everything in column BN, from row 7, which is right where the first quarter totals begin, 207 rows down.

So if there's any individual dosimetry readings there, it all gets summed up and that is assumed to be the total annual dose.

Well, the 20 was still there. And even though it's down, and it's not even with the quarterly totals, it gets summed up. And even though that's not --

CHAIRMAN KOTELCHUCK: Which would have made it 373, right?

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: But even though that dose was corrected up on annual totals, that doesn't matter, because that's not what the algorithm uses.

And this is how it comes up with an extra 20 millirems in the final dose. Because it was input incorrectly. It was not deleted. And the algorithm isn't just adding up quarterly doses. It's adding up 200 rows of doses, which I believe, you know, I think there's better ways to do that.

Because if you've got individual dosimeter readings down there, they're all going to get totaled, plus the quarterly totals are going to get totaled. And you're going to have an incorrect value at the end.

And this, for us was why we identified there could be a workbook problem. Because there's probably better algorithms out there then to sum 200 rows when you don't need 200 rows.

MR. SIEBERT: This is Scott. I do want to just point out, we just discussed yesterday the Hanford tool, where we didn't total enough lines and left data out by accident. So rather than missing data, we have

gone the other direction to ensure we have enough rows for the data.

You know, it is different here at X-10 because your -- oh wait -- yeah, it's X-10. Because you generally have quarterly data earlier on. But the fact is, there's no additional data later on there except a quarterly result. So the summation still works just fine.

MR. FARVER: Well, it didn't.

MR. SIEBERT: The summation worked exactly --

CHAIRMAN KOTELCHUCK: The summation worked, the data entry was incorrect.

MR. SIEBERT: I would like to point out, as we state in our response, that the dose reconstructor should have deleted dose 20, just like they did delete the 10s when they realized those were neutron doses as opposed to deep and shallow doses.

We agree wholeheartedly that the data entry person put it in the wrong place.

MR. FARVER: There will never be a circumstance where you have quarterly totals and individual dosimeter readings at the same time.

MR. SIEBERT: You may have, as will show up sometimes, you may have a quarterly total, and they report more than one quarterly total, which actually ends up being badges. It's a little idiosyncrasy with the way that X-10 did their dosimetry in the earlier days.

So you may actually have four or five, quote, quarters, worth of data, although they are specifically numbers of dosimeters that were worn during those quarters.

MR. FARVER: Okay, but in that example, we can see that we've got extremity doses. Individual extremity dosimeters. Let's assume that we have whole body dosimeters. Are we going to have whole body results down there also that are going to get summed up?

My concern is you're going to have

quarterly totals, plus you're going to have individual dosimeter readings, and it's going to sum up everything in that column indiscriminately. And you're just going to get a mishmash.

MR. SIEBERT: Well, that's not the case because we have the data that we have. I mean, I don't know how to respond to something that says maybe that will happen --

MR. FARVER: Well, no, I'm -- you're telling me it's not going to happen then, right? Because of the way they had their dosimetry structured, you will not have a case where there's quarterly totals plus individual dosimeter readings under the deep dose?

CHAIRMAN KOTELCHUCK: Look, it sounds -- maybe I'm misunderstanding, but I don't see how any algorithm can protect from an incorrect data entry. If a person puts in a number that shouldn't be there, then the algorithm will reflect it.

MR. FARVER: But my point is, if

this person had individual dosimeter readings down at the bottom where you see the extremity doses, all of the original dosimeter readings would also get totaled up with the quarterly totals. And you would have some extremely high number. Okay?

All I'm asking is, is that a possibility that that could ever happen? Because if that's the case, then you could write the algorithm just to total up quarterly doses.

And I'm sure there's a way to do it, you could key off the identifier out under quarter in the front. It seems a bit haphazard to sum up 200 columns when there's a possibility there could be something down in -- or 200 rows when there could be something down in row number 53 that you really don't want added.

MR. SIEBERT: What I can say there is the tools are developed starting from a generic point of view and adapted for each specific site. So if the generic tool has many rows of data being summed, and there's no reason

for it to remove that large summation for a specific site, we will not do so in the tool. There is nothing wrong with the way it is. It sums correctly.

CHAIRMAN KOTELCHUCK: Subcommittee Members, what are you thinking, if I may ask? We're going back and forth between the two groups it seems to me.

(Simultaneous speaking.)

MEMBER CLAWSON: Go ahead, Wanda.

MEMBER MUNN: No, go ahead, Brad.

MEMBER CLAWSON: My issue is, you know what? I understand what Doug is saying on this. You know, I really don't care if we got 400 or 500 rows as long as everything sums up right.

But when we start mixing the data and the questions is, is that possible? And what it looks like to me is, yes, that could be.

As Scott has put that, you know, they make these tools for each one of the sites. And I think what Doug is trying to point out to

us is that you do have a possibility of adding up these other ones, which you don't want into the process.

And if that is the case, I think what Doug's trying to do is help a little bit here, or be able to look at maybe we need to take a look at this or whatever.

I do see the issue on this. And I do see what Doug is putting out to us. But, to me, that really comes down to, you know, the data entry, that's a mistake right there. That was wrong. It shouldn't have been done.

But we're seeing another possibility here, not with this case, but there is the other possibility. And I think we're just trying to make them aware of a possible issue here. If it's not, then it's not. But that's my take on it.

CHAIRMAN KOTELCHUCK: Okay. Wanda?

MEMBER MUNN: It seems to me that what we're discussing is how can we derive a

perfect data entry system. And I don't think we're the first folks in the world who have attempted that. And I doubt that we'll be the last.

And as long as there is human frailty involved, either in completing the software or in the entry level itself, I don't think we're going to achieve that. The point is duly observed that duplication of dosages by reason of different forms of entry is something that needs to be high on the awareness list.

But we're dealing with literally hundreds of thousands of individual entries here. And we can only do the best we can by setting the tools up in such a way that it does the best possible approach for dealing with all those numbers.

CHAIRMAN KOTELCHUCK: Yeah.

MEMBER MUNN: I am assured that the tools we have have been given an enormous amount of study and an enormous amount of attention. We continue to do that almost on a monthly

basis.

But I know of no way that we're ever going to achieve our goal of 100 percent perfection in preventing any mistake in data entry. It's obviously nice to have that goal ahead of us, and it's one to which we should certainly aspire.

But I think I have enough confidence in the tools that have been developed to understand that we can't achieve that 100 percent perfection. Especially given the number of individual entries we have. If we had a half dozen entries for each of these sheets, then this would be an entirely different thing.

But we're talking, as has been pointed out, we're talking about the combination of individual monitors of one sort of exposure or another, combined with quarterly information for whole body exposures. And we have to, at some juncture, rely on the ability of the individuals who are entering this to

understand the nature of the materials they're working with and to enter it properly.

We can't do that. I certainly do not envy anybody who has that job. And I am sure that the tool that we have is one I could work with, but I still have to use some degree of judgment in what I'm doing.

So, yeah, I think we've identified the issue that's here in this particular case. And I understand the concerns have been raised, I think they're appropriate concerns.

I'm not sure that there's a way that we here can resolve the potentials that are being discuss here. I don't think we can resolve it. I think the folks who work with it are aware of the issues and do their best to try to address it.

CHAIRMAN KOTELCHUCK: I mean, I confess, I just feel like I'm not knowledgeable at that level of detail in the dose reconstruction process to feel competent that I can resolve it.

MEMBER MUNN: We aren't ever going to.

CHAIRMAN KOTELCHUCK: Yeah. By the way, Mark, I don't know if you have something, but if you do want to input in.

(No audible response.)

CHAIRMAN KOTELCHUCK: Well, then, I mean, I guess that the question, the debate that's going on between the NIOSH and the SC&A folks, do we as a Committee feel that we know enough to mandate or direct that there be a change in the NIOSH procedures?

And I don't feel that I know enough to do that. And I think Doug is really arguing that the procedures ought to be changed. I think it seems to me that that may be a sensible recommendation.

It may be. And I don't feel qualified to say for sure that it is. But I also don't feel like, as a Committee Member, and we as a Committee, have enough information to be able to for sure know a change is needed.

And I wonder if we can't just leave it as this is what NIOSH -- excuse me, this is what SC&A recommends. And leave it to NIOSH to look at that and consider this discussion.

MR. KATZ: Dave, this is Ted.

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: That's absolutely fine. I mean, first of all, the Subcommittee doesn't dictate what NIOSH does in the first place. So it only makes recommendations or gives guidance where it wants to.

So that's fine. But you can just leave it like that and NIOSH has the recommendation from Doug. And it can consider that in looking at its workbook.

And the finding itself, otherwise, is, you know, resolved. I mean, everyone is agreed upon what happened here. So you can close the finding and you can move on.

MR. FARVER: Well --

CHAIRMAN KOTELCHUCK: Go ahead.

MR. FARVER: My only point was

[that] you have a data entry person who enters data. You have the first control is someone checks that data to make sure it's correct. That failed.

The second control is it goes to dose reconstructor, who is supposed to review all the data and correct any errors. That control failed.

Then we went on all the way to peer review. And that control failed. We have three controls that didn't work. All I'm pointing out is there might be a way to prevent this whole thing in the first place by not using an algorithm that sums up 200 rows.

CHAIRMAN KOTELCHUCK: Right, but actually the third resolution did take care of it. That is to say, you folks found it.

MR. FARVER: No, that's not the peer review. We are far after that.

MR. KATZ: Right, that's understood. And all your points about the failure of QA, I mean, this is not the only case

where QA has missed not just at the first level, but beyond that level, too. There are many cases like this.

You know, your point is taken. Your guidance has been given. It's fully understood, I'm sure, by everybody. It certainly is by me and I'm not even an expert in this area. And it is by the ORAU folks.

And so that's been transmitted, that recommendation. And that's done. There's nothing more to do with it.

And so, Dave, I think you can close this and you can move on. And there's not more to be done here.

MEMBER GRIFFON: Hey, Dave?

CHAIRMAN KOTELCHUCK: Yes?

MEMBER GRIFFON: This is Mark Griffon.

CHAIRMAN KOTELCHUCK: Yes.

MEMBER GRIFFON: I'm sorry, I heard you ask for me and I was on another phone at the moment. But, I think you know, the summary

there was good.

And I think I would recommend the way this be handled is when we do the aggregate analysis, if there are several of these, then we highlight it in our summary report. And, I mean, you know, then to make a specific recommendation for them to change something, I don't think that's in our purview.

But to point out that this problem has occurred several times and is a concern of the Board, that's something I think we can weigh in on.

And that might be appropriate. And I think it's best handled in that aggregate analysis. Because if it is true that there are several instances of this type of QA, you know, problems, then I think it's worth highlighting in our summary report.

CHAIRMAN KOTELCHUCK: Okay. Understood.

MR. KATZ: But I didn't hear that there were several instances of this situation,

but maybe Doug can elaborate on that.

MEMBER GRIFFON: Right. I said if, if there are.

CHAIRMAN KOTELCHUCK: I agree, let's deal with it in the report. For the purposes of this Committee, it seems to me this can be and should be closed. And I'm ready to move on. There was a recommendation of closure from the Committee.

MEMBER GRIFFON: Sure.

CHAIRMAN KOTELCHUCK: Let me move that we close it. And I will entertain objections from Subcommittee Members.

MEMBER MUNN: I agree, close.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER CLAWSON: David, this is Brad, I agree to close it.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER GRIFFON: Yeah, I agree also, Dave.

CHAIRMAN KOTELCHUCK: All right, very good. It is now 12 o'clock. 11:55. By

the way, no, it's interesting, it's 11:45.

MEMBER CLAWSON: We need independent verification on that, Dave.

CHAIRMAN KOTELCHUCK: Alright. Look, it is 11:45. We could take a five minute break now if we went on a little long in the last one. Do people want to do that, or do we just want to work on until 12:30, when we broke yesterday, [which] was a good time.

MR. FARVER: Dave, I'll point out, we've got one more finding and two observations. And that closes out the Oak Ridge matrix.

CHAIRMAN KOTELCHUCK: Well, that seems --

MEMBER CLAWSON: This is Brad. I'll go along with continue on. Let's finish it up. It's only 10 o'clock my time.

CHAIRMAN KOTELCHUCK: Okay, that sounds good. Hearing no objection, obviously if people have to step away for a moment, then they will, as always.

Fine, let's go right ahead then. 324.2.

MR. FARVER: 324.2, this has to do with the X-ray doses. The person had three cancers: ear, nose and kidneys. The nose and kidneys got assigned two X-ray doses for 64, as was appropriate. The ear did not get assigned those doses. Why?

I mean, it's another QA issue. They should have all got the same doses and they did not. So it's another QA concern. We don't have any other information on that as to why it happened.

CHAIRMAN KOTELCHUCK: So NIOSH agrees?

MR. FARVER: Yeah, but there's no way to find out why it happened. I mean, there's got to be a reason. Either it wasn't in the file, or it was in the file and the dose reconstructor didn't do it. I mean, after we've heard about all these controls: Why did it happen? Why did they get included?

CHAIRMAN KOTELCHUCK: Can someone from NIOSH respond?

MR. SIEBERT: If I had been able to determine the why, I would have put in the why. As we discussed yesterday, when we had to cut and paste there for one of the prorations for a different cancer. If I can track down the why, trust me, I'll let you know.

But in this case, the fact that it's in some of the organs and not in another one, I cannot tell you, I just could not determine the reason that that occurred.

CHAIRMAN KOTELCHUCK: Okay. I don't know whether the -- sorry, I'm having trouble with my machine. But the designation E, I don't know what that is. So essentially you're saying it's unknown. And I respect that.

Does that designation E that you have in there, Doug, what does that reflect? Maybe from memory, or John if you might just remember. I know we can find it and flash it

on the screen. But I'm hoping that there's a category that says we don't know.

MR. STIVER: This is John. I just had to step out for a second. What did you --

CHAIRMAN KOTELCHUCK: Just 324.2, when the -- Scott just said that, you know, he doesn't know why this was not applied to the ear. And he could not find out. I mean, he checked, he just wasn't able to determine it.

So there's no issue. This is a QA concern. But the questions is what does category E say?

MR. STIVER: Category Es are the QA-type concerns. Actually, let me see if I can get control back from Rose, I can put something up. Hang on for just a second, I can actually pull up a document that has those definitions here.

CHAIRMAN KOTELCHUCK: Okay.

MR. STIVER: Hang on just a minute.

CHAIRMAN KOTELCHUCK: Sure.

MR. STIVER: I have too many

folders here. Alright. And let me share that. Can you all see this?

CHAIRMAN KOTELCHUCK: Yes, thank you.

MR. STIVER: And you can see E is basically a quality concern. These are the data entry errors and things of that nature.

They go from A being the, you know, worker placement. B, the exposure scenarios. C and D being the external and internal dose models, the correct models we use.

And then category F, which is really, didn't fit into any of the above categories. This is for everybody, just as a refresher, I thought I'd put that back up.

CHAIRMAN KOTELCHUCK: Thank you.

MR. FARVER: This is Doug. There's one thing I would want to mention. For the next group of findings, 14 to 18 sets, I did not categorize using these categories. Do you want me to? And I will point out that they're not always accurate, because I don't always

know what's a QA concern prior to getting a response back from NIOSH.

In other words, I've listed as a C, external dose assumptions were incorrect, when in fact is could be a quality concern. They're not always accurate.

MR. KATZ: That's okay, Doug. Because you learned later that it's a different category, you can change the category. And sometimes it's the Subcommittee that -- it's their discussion that resolves exactly the nature of the problem. And then it can be changed again. That's fine.

I mean, really, it's only important so that in the summation process, we have our right little, you know, correct pools of data.

CHAIRMAN KOTELCHUCK: Right. And for this particular problem that we're talking about, 324.2, E certainly fits. It doesn't tell the whole story, but it fits. And I don't think F -- F suggests, it's none of the above. And certainly it is a quality concern, a QA

concern.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Then I think that should close it.

MR. FARVER: Right. And one of the things I'll do is I'll go back through these matrices and make sure that everywhere we have QA concerns, we have an E category.

Because I just looked up above one where for one up to 394.1, it's marked as C, which is external dose, was incorrect. Which is was, but it turns out it was incorrect because it was a QA concern.

So we'll go back and make changes like that.

CHAIRMAN KOTELCHUCK: Okay. Good.

MEMBER CLAWSON: Well, Doug, wouldn't you put a C and an F on that one? It's a QA concerned, but still a --

MR. FARVER: No, then we're into double codes. And I don't know.

MR. STIVER: I mean, if you're uncertain you can just put it in paren[thesi]s, the C, but it may be kind of a hybrid type of a category.

MR. FARVER: Right, but then you're going to run into trouble when you start searching.

MR. STIVER: Yeah.

MEMBER CLAWSON: Well, one of the things I was just going to say, is most of your QA concerns are going to be tied to one of the other issues.

MR. FARVER: Yes.

MEMBER CLAWSON: That's what I'm saying is, on a QA concern you're going to have a double one no matter what.

MR. STIVER: Well, still there's going to be an internal and external model.

CHAIRMAN KOTELCHUCK: Yeah. That's true.

MR. FARVER: Okay, well, maybe we'll revise those A through F codes and expand

on the F codes.

MEMBER MUNN: I'm not at all sure that -- I originally thought that it would be wise for us to double code these things as well. But I'm not at all sure that that's really true.

When we identify something as being erroneous with respect to internal or external dosage, then we should be looking at not just the simple mechanics, but as the basic approach being correct or incorrect. Not just the quality issue. If it's a matter of data entry, which a large number of these turn out to be, then we're talking about QA.

Other than that, if we're -- I think we can evaluate that. It doesn't seem to me that it's likely to be double teamed. And as Ted pointed out, sometimes those things change after the discussion when it becomes clear that it's just a data entry issue. These are big issues, but nevertheless, they aren't really and truly.

It doesn't matter whether it's

internal or external or some other basic cause. If the problem is data entry, then it's QA.

MR. FARVER: Okay. Now, let me point this out. We do have our initial table two codes out at the very front, that are attached to the finding number. Those identify internal, external, neutron and so forth.

MEMBER MUNN: Right.

MR. FARVER: So we still have an identifier whether it's internal or external, or what it is. Do we just need to have a column or a check mark that says quality issue? Do we even need these A through F codes?

CHAIRMAN KOTELCHUCK: Well, could I suggest that we're really talking about matters that we're going to have to really chew over carefully and more in our report.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: And that it's a good initial discussion, but I think we can go on and just continue.

MR. FARVER: Okay.

MR. STIVER: This is Stiver. Could I say one thing?

CHAIRMAN KOTELCHUCK: Yes.

MR. STIVER: The thing to keep in mind is that the checklist really hasn't changed much in 10 years. And we generated that A through F really kind of more of an eye towards how we might want to bend these types of findings for the Secretarial letter.

CHAIRMAN KOTELCHUCK: Right.

MR. STIVER: I think that they're kind of separate in that regard. So I would kind of advocate that maintaining the A through F at least for now.

CHAIRMAN KOTELCHUCK: Yeah. Okay, that's good.

Okay, Observation 1 on 324.

MR. FARVER: Observation 1. The recorded neutron doses at Y-12 during 1971 were not assigned as doses in this case. And NIOSH quotes, you know, OTIB-45, which is correct,

and RPRT-33.

And although these segments appear to support NIOSH's case, it's inconsistent with the accepted method of assigning photon and neutron missed doses across most of the DOE sites.

And it's really just to point that out, that it's an observation and it's not inconsistent with their documents.

CHAIRMAN KOTELCHUCK: Okay. Are there any other observations on 324?

MR. FARVER: One more observation. When we were looking through the files, we found an incident report that lists a whole body count for the employee and had a cesium result. We could not find a record of the whole body count in the DOE files. This was just written up in an incident report with the result. And it was not included in the NIOSH calculation.

We did run IMBA to determine that it really was not going to have an impact on the case. This observation is merely to point out

that there was an incident report that said there was a whole body count, but a whole body count was not part of the record.

So I don't know if they're getting all the whole body counts or not. That's all that was pointing out.

CHAIRMAN KOTELCHUCK: Okay.

MR. SIEBERT: Well, can I clarify the response?

CHAIRMAN KOTELCHUCK: Sure.

MR. SIEBERT: We did review that document and it is clear that the whole body count is not for the EE [employee], it's for the other person who was involved with the incident.

MR. FARVER: And that's all.

CHAIRMAN KOTELCHUCK: Okay. Then that -- that was a useful explanation to that observation.

So we are now finished ORNL. And it does seem like an appropriate time. We now have only -- only -- many remaining cases --

many cases at the remaining sites.

MR. FARVER: David, let me bring something up there.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Now, this matrix was 39 pages long. That matrix is about 80 pages long. So it's going to take a very long time. So maybe if you have other business that you might want to start first. And then if there's time left, come back to that matrix. It's up to you. But you're probably not going to get through that matrix today.

CHAIRMAN KOTELCHUCK: Well, maybe what we should do is when we come back from lunch or breakfast, talk about plans for completing 10 to 13, which is the next item on the agenda.

And do we want to start to think about the report to the Board? We also are asked to choose some blind reviews.

MEMBER MUNN: It might be worthwhile -- we probably could get the blind reviews out of the way here fairly quickly. My

guess is the other items that you mentioned, and the ones that are on the agenda, are going to take some time. And probably involve much more discussion then the selection of cases.

CHAIRMAN KOTELCHUCK: Yeah.

MEMBER MUNN: So I would suggest we address the selection of blind review cases.

CHAIRMAN KOTELCHUCK: When we come back.

MR. KATZ: Yeah, Dave, I agree with what Wanda just said. That's the one piece that really it would be helpful to get that out of the way so that we can get it assigned to SC&A.

But the rest, I mean, since everything of reporting out to the Board is predicated on getting through these sets, I still think that's the highest priority no matter how much there is to do.

CHAIRMAN KOTELCHUCK: Okay. Well, that makes sense. I would love to get through them. I also feel like it's premature

to discuss the review results. We're not going to finish all the cases today anyway, the remaining cases.

So why don't we come back on the blind reviews. I'm not quite sure of the procedure for selecting those three new cases. If someone would enlighten me on that.

MEMBER MUNN: Well, that's probably the first topic of discussion, would be my guess. We can either simplify it, or we can complicate it, or we can make it a group effort. But I think my personal instinct is to simplify it to the highest degree.

MR. KATZ: Yeah, I think someone needs to remind us of how we selected the prior ones.

CHAIRMAN KOTELCHUCK: That's right. And are we selecting from -- we're selecting from 14 through 18? Or are we selecting 19?

MR. KATZ: It really doesn't matter. I mean, it's just three cases.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: So I don't think that matters so much. And obviously they have to be cases that are adjudicated. But someone needs to remind us of how we selected blind cases before. We haven't done that many blind cases. But we selected six last year or the year before last.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: Whatever we did there, probably makes sense to do here.

MR. STIVER: Keep in mind that we couldn't take cases from sets that have already been done. I mean, these obviously have to be new cases.

MR. KATZ: Right, absolutely. We can't look at cases that have already been reviewed, but the sort of the sets that they were pulled from were much larger than the cases that were elected.

MR. STIVER: Yeah, you're right.

MR. KATZ: That's all I'm saying.

CHAIRMAN KOTELCHUCK: Okay, I kind of remember that we kind of did this by email. But if we can do it usefully on Committee time, fine.

MR. CALHOUN: Can I add something here real quick?

CHAIRMAN KOTELCHUCK: Yes, please.

MR. KATZ: Go ahead, Grady.

MR. CALHOUN: This is just kind of a little point I had about the blinds, is that they are truly not blind if you pick them from, you know, 48 to 52 percent from lists we've already generated. Because then you've got, what, you've got four percentage points --

CHAIRMAN KOTELCHUCK: Right.

MR. CALHOUN: -- that you know the answers are supposed to come from. So I don't think you can call them blind unless you pick them at random. Just my two cents.

MR. KATZ: I think that's a valid point.

CHAIRMAN KOTELCHUCK: Well, why

don't we -- it's five minutes after 12 here on the East Coast. So let's take a break and then come back to discuss the blind reviews. And then go on to the remaining sites.

MR. KATZ: I'm sorry, so when are we coming back?

CHAIRMAN KOTELCHUCK: It's 12:05 Eastern Daylight Time, 1:05.

MR. KATZ: Oh, okay, thanks.

CHAIRMAN KOTELCHUCK: Thank you all, everybody.

(Whereupon, the meeting went off the record at 12:05 p.m. and resumed at 1:23 p.m.)

A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

(1:23 p.m.)

CHAIRMAN KOTELCHUCK: Okay, folks, let's start discussing the blind reviews.

MR. KATZ: So let me just refresh your memories, because back in March of 2013, you did this.

And basically what we decided there made sense was to do -- we wanted full dose reconstructions, despite Grady's issue about it not being totally blind in that respectbecause you already know the ballpark.

CHAIRMAN KOTELCHUCK: Right, absolutely.

MR. KATZ: But the reason for doing full ones was because then that brings in all the complexity that you'd want to consider, I mean, for doing these blind reviews.

Really these are sort of good learning experiences for how to think about things and sort of step back and think about methods and so on.

So, anyway, one of the parameters we agreed upon last time was to select the most recently adjudicated cases as possible. That was one parameter.

Another, we wanted full internal and external, which sort of boiled down to, I believe it's 45 to 52 percent Probability of Causation. That ballpark gives you full ones.

We did not want a case that had been pulled previously. So not one out of a set that's been pulled, because SC&A will have seen all of those and has access to all of those, in a sense.

And that's it. And the only other thing that I would add for you to think about with this -- and, again, last time we had, by the way, we were shooting for six and we ended up with a pool of 12 ultimately to select from to get down to six.

The other thing that you just may want to consider is whether it, in general -- and I guess I have reserve about that after

Kathy's remark during the break about AWE being interesting, but it seems in general the DOE facilities, the employees have much richer work histories in terms of all of their exposures and so on than at many of the AWEs.

But that's something for you guys to consider. But, anyway, the other three parameters: recently adjudicated, full internal and external -- which means sort of 45 to 52 percentile, you know, PoC -- and not a case that's been pulled for one of the other sets. Those were the parameters.

CHAIRMAN KOTELCHUCK: But, as I recall, we had a list to look at. To choose from.

MR. KATZ: Right. So, let me just talk about process. So what we would do is, if those are the parameters that are good for the Subcommittee, then we would ask NIOSH to pull a set of cases large enough to be able to boil it down. So, you know, we're shooting for three, what have you, nine, twelve cases to look

at. And then you would look at them and add, you know -- and when you look at them you would consider other matters.

For example, you don't want to have all the same kind of cancer, probably.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: That would be considered before. And you may want to vary to have different sort of work histories represented among the three and so on.

CHAIRMAN KOTELCHUCK: So, Grady, does that sound reasonable?

MR. CALHOUN: Sure. I mean, I can do whatever you guys want to do. But, you do know going in that you've got seven percentage points, that's correct?

CHAIRMAN KOTELCHUCK: Yes. Right, we do know that. And we've done that before. And I thought about that during lunch break, and I just feel like that that can't be helped.

MR. CALHOUN: I mean, even going

with internal and external isn't blind. That's not how we do them.

MR. KATZ: Right.

MR. CALHOUN: Because we want to really be blind.

CHAIRMAN KOTELCHUCK: Yeah, yeah.

MR. CALHOUN: Whatever you want to do. I'll give you numbers.

CHAIRMAN KOTELCHUCK: Yeah, let's do it as we did before. And if you will send us, all the Committee Members, and we'll choose three. Or if you'll get them to Ted and Ted will.

MR. KATZ: Yeah, can I make a suggestion as to process, too, with respect to going forward? The last time we waited until the next Subcommittee meeting. And we could do that, but it sort of puts off SC&A and being able to get to them.

CHAIRMAN KOTELCHUCK: Correct.

MR. KATZ: But we can go that route if you want to.

CHAIRMAN KOTELCHUCK: I would prefer that we just send these out by email.

MR. KATZ: Alternatively, we could do sort of as we did for this last set. And you could send me your individual choices, in effect, for the set that you receive from NIOSH. And then I can look at all your individual choices and try, to the extent possible, to sort of take a consensus view in the selection.

CHAIRMAN KOTELCHUCK: Let's do that. I don't want to wait.

MR. CALHOUN: What do you actually want first? Do you want just the case numbers first, or what do you want first?

MR. KATZ: So, Grady, sort of like as you select for the other cases. I mean, for the Board Members to be able to select, they want all those sort of basic parameters about duration of work history, the era they worked in. You have all those already. You've used them before.

MR. CALHOUN: I'll just send these

criteria to Beth. Because this is one of those things I don't do and she's there.

MR. KATZ: Yeah. So she knows and she's welcome to call me and check in with me about that. But we've done it, and you did it back in February of last year. So you probably have a record of that, too.

MR. CALHOUN: Okay.

CHAIRMAN KOTELCHUCK: Okay, good. And then we'll get those and --

MR. KATZ: The only thing -- I suggested something, David, you didn't respond to -- or you and the rest of the Subcommittee -- which is whether you want them irrespective of whether they're DOE or AWE, or do you want to be selective and stick with DOE? Do you have a preference in that respect?

CHAIRMAN KOTELCHUCK: Well, my preference would be for DOE, but let's ask other Subcommittee Members. There's just not that much to work with at AWE.

MEMBER CLAWSON: So this is Brad.

DOE is fine.

CHAIRMAN KOTELCHUCK: Mark and Wanda?

MEMBER GRIFFON: Yeah, DOE's fine.

CHAIRMAN KOTELCHUCK: Wanda?

MEMBER MUNN: Yeah, I would prefer DOE. I think at this stage of our development we need to be looking at more recent cases. And that's appropriate, I think.

CHAIRMAN KOTELCHUCK: Sounds excellent. Okay, then that is folded in, DOE.

Are we ready to go to the remaining sites?

MEMBER MUNN: Sure.

CHAIRMAN KOTELCHUCK: Okay, I have no preference on that, so let's just go with -- I think we start with 237, some from Allied Chemical. I think those are the first.

MR. FARVER: It starts with 266.1.

MS. GOGLIOTTI: Doug, what document are you in?

CHAIRMAN KOTELCHUCK: Okay. I see

266.1, yes, that's certainly open.

MR. FARVER: Summary of findings, matrix 10 to 13, remaining sites. It would have been February of 2014.

MS. GOGLIOTTI: Okay, I will get that pulled up.

CHAIRMAN KOTELCHUCK: Here we go. Okay, there's NTS, 266.1.

MR. FARVER: On our scheduled meeting, the one that got cancelled, we received NIOSH's responses. So then we went back and put our responses to their responses and sent it back to them, and that's what this document is.

CHAIRMAN KOTELCHUCK: Okay. Right. Why were the 1962 photon doses in the IREP table -- scroll just a little.

MR. FARVER: Oh, okay, so it's on the screen.

CHAIRMAN KOTELCHUCK: It is.

MR. FARVER: Incorrect photon dose used to determine electron dose. For the 1962

doses, the shallow dose was incorrectly applied by using 150 millirem less dose.

In other words, they got the deep dose done, but the shallow dose, they didn't use the same total dose. And they came up with a different number.

And so our concern is why is it listing 150 millirem? Is this a data input error? You know, the photon dose is calculated correctly, but the electron doses weren't.

CHAIRMAN KOTELCHUCK: Okay. And what we're seeing here is NIOSH's response. It doesn't give a reason. And, Scott, did you look for a reason and you could not find it?

MR. SIEBERT: We looked into it and, yeah, can't find a specific reason why the two values are different.

CHAIRMAN KOTELCHUCK: But in this context, I don't see that that will result in a significant change. I'm not even talking about flipping. I'm just talking that it is a very small -- we're talking about a two percent

correction. Three percent.

MR. FARVER: Well, the point is why are they using different doses? I mean, it's just wrong. Something's wrong somewhere.

CHAIRMAN KOTELCHUCK: Yeah.

MR. FARVER: And it's wrong to just ignore it.

MR. SIEBERT: I agree. I'm going to look further in to see if I can find any more information as to why those two numbers are different.

I'm not saying to close it, by all means. That's not what I'm saying at all. I'm saying I will take more time to look into the specifics on this one to see if I can dig anything else out.

CHAIRMAN KOTELCHUCK: That's fair enough. That's appreciated. So, 266.1 will remain open. Let's go on.

MR. FARVER: Okay, 266.2. NIOSH failed to account for the for the beta uncertainty for years 1966 to '72. The NIOSH

response says that the uncertainty for beta dose is included in the factor of one, which is consistent with the guidance in OTIB-17, Section 3.

When we looked at the Technical Basis Document under the section for beta dosimetry with film badges, it specifically said with shallow dose estimates from ‘66 through ‘86, the dose reconstructor should double the reported value to ensure favorability to claimants and to account for uncertainties.

Also we could not find any reference or anything in OTIB-17 regarding the beta uncertainty from film badges. Or any statement that would supersede the site-specific guidance.

MR. SIEBERT: Okay. And what we’re saying here -- and I’ve looked at this. The language in the section that you’ve pulled from had more information than just the last sentence.

It also says the value of a factor of two is an estimate of the range of uncertainty based on knowledge of the reported responses and the characteristics of the dosimeters. And it's presented for general information only.

MR. FARVER: So why does it say that the dose reconstructor should double the reported value to insure favorability to claimants?

MR. SIEBERT: I'm just telling you what the TBD says in the earlier portion of it, that it's for general information only.

MR. FARVER: So I guess the dose reconstructor can select which portions they want to use.

MR. SMITH: This is Matt Smith with the ORAU Team. With respect to the section of the NTS TBD, it was written before OTIB-17 was an active OTIB.

It's probably difficult to discern that unless you were go back through each

revision of the NTS TBD and see which sections change and which stayed the same.

But Scott's correct. The recommendation was made during a time early on in the project where literally not much was known about what the uncertainty for beta should be.

OTIB-17 came online in the 2005 time frame. It's been reviewed through the Procedures Committee several times in several different ways. And I believe it's standing right now with no issues on it.

Within OTIB-17, which is the approach that is then taken by the DRs to do claims during this era at NTS, there's a wide array of claimant-favorable assumptions that are made. The DCF is set to one. The missed dose, for instance, for a situation where we had a zero for open window and a zero for shielded dose, we assign that dose based on the LOD for electrons, but then assign it to the photons, 30 to 250 keV energy range, which is a more

favorable range to assign it to, in terms of PoC.

The bottom line on this is the language in the NTS TBD should be updated to reflect that OTIB-17 came into effect and is now the guidance document that DRs use to deal with shallow dose.

CHAIRMAN KOTELCHUCK: Right. It seems to me that you're suggesting that we refer -- effectively the suggestion is to refer it to the Procedures Committee.

Because you're just saying something is out of date and that it was not in the previous reviews, it was not taken out. You believe it should be.

MR. SMITH: As I took a look at this, my recommendation would be to update the pertinent section of the NTS TBD to reflect that OTIB-17 is the relevant guidance to be using for this time period.

CHAIRMAN KOTELCHUCK: Right.

MR. CALHOUN: This is Grady. I

don't think that that needs to be referred to the Procedures group. Because we can fix that TBD. But, additionally, if you look in the references of that actual dose reconstruction, TIB-17 is referenced as a document that would be used to do the shallow dose calculation.

MR. FARVER: Okay, Grady, so wouldn't the technical basis reference [be] also?

MR. CALHOUN: Sure.

MR. FARVER: Okay. Well, that's got different information in it. My point is you've got conflicting guidance.

MR. CALHOUN: Yeah.

MR. FARVER: So when you've got conflicting guidance, which do you use? Do you use the general OTIB, or do you use the site-specific?

MEMBER MUNN: Well, it seems the recommendation should be to update the TBD so that it's not in conflict with the OTIB.

MR. CALHOUN: Right. I agree with

that.

MR. FARVER: I understand that. But, I mean, as general practice, so that we know for future dose reconstructions, when you've got conflicting guidance, which one do you use? The OTIB or the site-specific guidance?

MEMBER MUNN: Well, you know, ideally what one needs to do is resolve the difference. And that's what I think our recommendation should be in this case, is request that NIOSH change that guidance.

I understand your question, it's just that it ought to be a question that does not arise more than once. And having arisen, it should immediately generate an effort to resolve the difference. We shouldn't need a subcommittee to do that.

MR. FARVER: Well, Wanda, maybe for this specific instance it won't come up again. But there are instances where the guidance conflicts. And which one do you use?

MEMBER MUNN: Yeah, I understand your concern. And you're absolutely right. This is not the first time we've seen that.

But what I'm saying is, it doesn't seem to me that it should require anything other than NIOSH's acknowledgment that they see there's a conflict and move whatever needs to occur to correct that, correct it immediately.

MR. KATZ: Right. To address the other part of Doug's question, though, in their doing dose reconstruction case reviews where they run up into this. Doug, what I would suggest is that you contact NIOSH and ask them which one they did use.

I mean, I guess in this case they did use OTIB-17 and they were both referenced. But it was hard for you to sort out which one they used maybe.

But, anyway, feel free to contact NIOSH and get clarification in a case when you run up against this.

MR. FARVER: Well, it's not so much

which one they use, it's what hierarchy.

MEMBER MUNN: Yeah.

MR. KATZ: Yeah, but there's no hierarchy. They're not intending to have conflicting guidance. So, I mean, it happens, I understand what you're saying. But that's not the intent.

So they don't have a hierarchy to ignore one over the other. They just have errors where they have some conflicts.

CHAIRMAN KOTELCHUCK: NIOSH has the ability -- NIOSH is authorized to just change the TBD?

MR. KATZ: Yeah, I mean they're NIOSH's TBDs. And they change them as they need to. They change them all the time.

CHAIRMAN KOTELCHUCK: Um-hum.

MR. KATZ: Yeah.

MEMBER MUNN: With or without guidance from someone else.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: Absolutely.

MR. FARVER: I'll give you the example.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Like I think PROC-60, X-ray frequency, I believe there is general guidance on frequency. I believe there is site specific guidance. And I believe it says somewhere about site specific guidance [it] should take precedence.

MR. KATZ: And it does in that case.

MR. FARVER: Well I understand. But I'm just saying, what is its intent? Is site specific guidance in the TBD supposed to take precedence over OTIBs?

Because I'm not sure how we can audit everything if we're not sure which one it's supposed to be.

MR. CALHOUN: I would prefer that the site specific documents contain that which we use.

MR. FARVER: Okay.

MR. CALHOUN: And in the case where

we haven't updated it yet, we made a decision. But I would prefer that eventually the site specific documents are the ones that we go to first.

MR. FARVER: Okay.

MR. CALHOUN: It makes most sense to me.

MR. FARVER: As you know, that was the basis for this finding, was that we found something in the site specific guidance. And it appears to be a conflict that can get resolved.

But I want to make sure in the future when we come across this, that we write it up appropriately. And don't just, you know, don't miss it.

Yeah, I think this is, you know, it's good to settle it this way. There's not a conflict. We should work it out. But I mean that's --

CHAIRMAN KOTELCHUCK: Yeah. I think we have agreement.

MR. FARVER: So we're going to work on modifying the TBD to --

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Reflect certain guidance.

CHAIRMAN KOTELCHUCK: Okay folks?

MEMBER MUNN: Hopefully NIOSH will agree to that.

MR. BARTON: This is Bob Barton, I have a question. TIB-17 isn't site specific to NTS though, is it? It's just a general application of shallow dose document.

MR. KATZ: No, that's the whole point, Bob.

MR. BARTON: Okay.

MR. KATZ: In this case the generic bumped the site specific because the site specific's out of date.

MR. BARTON: Okay.

MR. KATZ: That's the whole point.

MR. BARTON: Alright, thank you.

MR. KATZ: You're welcome.

CHAIRMAN KOTELCHUCK: Okay, I think we can close and go on.

MR. FARVER: Okay, closed. And then 266.3, missed electron dose was not assigned for '57 through '65. Okay. And-- okay, I'm looking down the italics under the SC&A section.

For '57 through '65, there were no reported shallow doses. Therefore an electron to photon ratio of one to one is applied for these years. And they're reasonable assumptions.

And this is to calculate the recorded electron dose based on the record -- based on the recorded photon dose, they're assuming an electron dose of one to one. Okay.

So if you have 4.3 rem of photon dose, you would also add in 4.3 rem of, you know, electron dose.

CHAIRMAN KOTELCHUCK: Electron dose.

MR. FARVER: Okay. Our point is

that you should do the same thing for the missed dose because there's still missed dose there. So you would take the missed photon dose, use a one-to-one ratio and call it missed photon dose.

I mean that's what we think is reasonable based on this situation where they're -- where you're doing it for the recorded dose.

Now if you follow OTIB-17, you're not going to do that because there is no shallow dose. There would be no shallow missed dose, which seems to be in conflict with what you did when you assumed the electron dose.

CHAIRMAN KOTELCHUCK: Right. Please scroll down just a little bit. Thanks. NIOSH?

MEMBER MUNN: Excuse me for interrupting the thought here, but I've lost my Citrix connection again. And I am wondering whether this matrix was sent to us recently?

MR. FARVER: Friday.

MEMBER MUNN: Friday, alright. And what was the title?

MR. FARVER: I sent you, I think it was four matrices maybe. One, two, three -- no, four or five.

CHAIRMAN KOTELCHUCK: Five.

MR. FARVER: This is called, it would be under summary of findings matrix -- oh, 10 to 13 remaining sites. February, 2014.

MEMBER MUNN: Okay, thank you.

MR. SMITH: Well this is Matt Smith with the ORAU team. I didn't specifically look at this item. But into the process of assigning missed dose, we do not want to assign double missed dose, would be my quick response to this.

The one to one should be applied when we have a recorded dose situation. But as you've noted with OTIB-17, we don't take the tact of applying both missed photon dose and missed electron dose together.

With OTIB-17 guidance, we do, as I

mentioned earlier, categorize that missed dose in a more claimant favorable manner by calling it out in the 30 to 250 photon category. But without looking at this a little deeper, I don't have much more to say on that one.

Well Scott, do you have anything to add?

MR. SIEBERT: No, I agree with you Matt. And this is -- realistically this is a question about OTIB-17, not about this claim.

MR. FARVER: Correct. And for this case --

MR. SMITH: I know a long time ago, we realized we were going to have situations where you literally have a zero, zero. Zero open window, zero shielded. So what should you call that missed dose? Would it be called electrons or photons?

I know in this particular era we're doing the one-to-one ratio. But typically, as I mentioned before, what we would do in that situation is use an LOD value associated with

electron data.

So you know, we're going claimant favorable on that assumption. And then further going claimant favorable and categorizing it to the 30 to 250 keV photons for assignment in the IREP.

MR. FARVER: And this is for a skin dose, is what this case is. Two skin doses. You may want to take a look at this, this might be a NTS specific issue.

CHAIRMAN KOTELCHUCK: Want to take -- is that something you want to do? Matt or NIOSH?

MR. SIEBERT: Well, we're kind of deferring to -- I'm guess deferring to Grady on this. Because this is -- as I said, this is a question about OTIB-17. This is not a question about NTS or this claim.

MR. CALHOUN: Yeah, it seems like the question here is whether or not you or whoever believes that application of that mid-level photon rather than beta is okay or

not. And that's what's dictating TIB-17, that's what we found.

So really the question is, is TIB-17 wrong? So that's what we followed. But I don't know if you want to refer that to the Procedures group, or what do you want to do on that one?

MR. KATZ: This Ted. I think that's where that belongs. And Dave, I think we can just write a little email to Procedures. Wanda's on it, she chairs it, just asking them to look at this.

CHAIRMAN KOTELCHUCK: I'd be most open to that. Wanda, [what] do you feel like?

MR. FARVER: It is an NTS issue also because for this specific time period, it effects NTS. There are probably other sites that are effected in other time periods.

CHAIRMAN KOTELCHUCK: Right, which is why one would send it to the committee.

MR. KATZ: So what I can do is I can excerpt this little piece of the transcript

when it is produced, Dave and committee. And send that along with a cover email from me on behalf of the Subcommittee just asking the Procedures Subcommittee to consider this.

I mean that would be the way to do this.

CHAIRMAN KOTELCHUCK: Yeah. Wanda you think --

MEMBER MUNN: Yeah, we're delighted to be of any assistance at all.

CHAIRMAN KOTELCHUCK: Okay. And then Mark and Brad, do you go along with that?

MEMBER CLAWSON: This is Brad. That's fine. This is also one of our site issues that we're trying to bring to a resolution to the site.

MEMBER GRIFFON: That sounds good Dave.

CHAIRMAN KOTELCHUCK: Okay. Let's go ahead.

MR. FARVER: So did we close this out for us?

CHAIRMAN KOTELCHUCK: Yeah.

MR. FARVER: Okay. 266.4, unable to verify plutonium intake. And that was because we didn't get the file. There was no acute documentation supporting the 1959 plutonium intake.

MR. SIEBERT: Okay, I have a response for that. There is no acute intake file. That is not what we are stating in the response.

The way the dose reconstructor did is work around to the CAD program. The CAD program uses either acute intakes or annual full-year electronic intakes. This obviously is neither because it's from March 3 of a year to April 6 of a year. And you cannot do those directly in CAD.

So what the dose reconstructor did to get the numbers using CAD was they took the product intake that was calculated in IMBA for that basically month time frame. Added up the intake across that whole chronic time frame

together. And assigned that as a single acute intake in the CAD program.

It's just a way of using CAD as opposed to having to run everything through IMBA.

MR. FARVER: Okay. Were those files included?

MR. SIEBERT: There is no file. That's what I'm saying. The IMBA files -- let me rephrase that. The IMBA file, which would be plutonium 239 estimated dose, was included in the claim. And the CAD file, which is CADW, underscore, the claim number. Both of those were included in the submittal, yes.

So if you go back to the IMBA file, you'll see that the intake is 4,454 dpm per day. And if you multiply that over the chronic time frame, you get just over 151 thousand dpm. And that's what was assigned as an acute in CAD.

MR. FARVER: And that line of thinking or anything is not included anywhere?

MR. SIEBERT: There's no reason to

do so. It's the calculation of the dose.

CHAIRMAN KOTELCHUCK: It doesn't involve any OTIB or anything. Well it sounds like a reasonable procedure. The question is whether --

MR. FARVER: Except when you're trying to audit.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: And you're looking for chronic intake and supporting information. And you don't find it. You find acute intake.

MR. KATZ: Right. And I think the solution to this, to the quandary for Doug or whoever happens to be auditing it, is when you run into a situation where there's just missing information, is to ask NIOSH to explain so that you can hunt it down.

CHAIRMAN KOTELCHUCK: And how do we -- how do we manifest that stuff here now?

MR. KATZ: Well no, I think that's a -- just a process for SC&A. In these cases where there's some question of where some data

came from, go ahead and ask -- go ahead and ask NIOSH while you're doing the audit.

For the missing information. It's just a process thing for us here.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay. I mean I think that's a little -- it's not a true audit then. Because normally in an audit, they're going to supply you the information and you're going to go with what they give you.

MR. KATZ: It's fine with me, Doug, to do it this way. To ask questions when we're -- there's simply a matter of not understanding where some missing information is. It's just -- it doesn't infect the audit in any way in terms of its integrity.

CHAIRMAN KOTELCHUCK: Unless one were to look back at it years later.

MR. KATZ: No, because the audit is going to have a review of all the information directly then. They'll know where this information came from, how it was done. And

they can then determine whether it was done appropriately.

CHAIRMAN KOTELCHUCK: Shall we close it. Sounds like we might. Doug?

MR. FARVER: I guess.

CHAIRMAN KOTELCHUCK: Yeah. Let's close 266.4 unless somebody from the Subcommittee wants to raise an issue.

MEMBER CLAWSON: Well, this is Brad. I understand what Ted's saying. I understand what Doug's saying. But there -- we've got into this before.

If we're doing an audit on this and the information isn't there, that really to me is a problem. And I know, Ted, that you said well, you know, you can call them and just ask them: Well how did they get there?

Well I think that's kind of out -- I think that's stepping outside the bounds of the audit.

MR. KATZ: Well I mean Brad, it's not. It's not. All the data was in the files.

The problem here was SC&A didn't understand how they got from the data to a calculation that was made.

But all the data for this file and all the work for this file was there. Except for that the person who did the calculation did not write down what he was doing when he took data from one source and applied it in another part.

Now that's not -- there's nothing wrong with the dose reconstruction in that sense. It's just a problem for the audit because there's not clear information about every step that was taken along the way.

But that's not a flaw to the dose reconstruction. And I am perfectly fine with SC&A calling NIOSH in these cases, which aren't that frequent, but where they find that they just have lost a trail in effect of how things were done, and getting clarification.

And if SC&A finds in a case that there's something that should have been written

down, they can still put that in their audit. But it's not a finding in terms of a flaw of the outcome of the dose reconstruction case.

So they can put in their audit report you know, we didn't understand how he got this. We called NIOSH and this is how they got it, if you want a record of that.

But in my opinion, that record itself has very little value down the road to anyone. But it only has value in terms of being able to do these audits efficiently.

MR. FARVER: I would prefer that in situations where we cannot verify a dose from the dose reconstruction report, or the files provided, that we write it up as a finding and let it come out here that oh, okay, it was because the dose reconstructor didn't include all the work. Or maybe a file is missing.

But I'd rather write it up as a finding and let it come out during this process.

MR. KATZ: Okay, and my opinion is that we waste a lot of time on these things.

Because they're not problems with the dose reconstruction case per se. They're just an issue for processing the audit.

So I would rather not waste the whole Subcommittee's time on these matters.

MR. CALHOUN: Well this is Grady. And my opinion on that is it's not a finding. Because our goal with this program is to provide quick dose reconstructions that are on the right side of compensation.

It's really not one of our priorities to make them easy for an outside agency such as yourself to audit. As long as it's clear what our people do; for our people to do it, that's our goal.

So because it wasn't as easy for you to find something, really can't be held up as a finding. Because then once it's done on this list, it gets tallied up as a problem. And really the problem is that it just wasn't clear to the auditor.

MR. KATZ: Okay, I'm happy to have

more discussion about this with SC&A. But I'm fine.

CHAIRMAN KOTELCHUCK: Well let's just close -- let's just close .4. And .5 is on the screen.

MR. FARVER: Okay again the IMBA intake does not match the CADW intake. There was an IMBA file for an iodine-131 intake. It shows 39 million picocuries for the intake.

The intakes that were put into the CADW report were 392 thousand picocuries intake. They were off by 100. Human error.

CHAIRMAN KOTELCHUCK: It sounds like NIOSH -- well it sounds like NIOSH acknowledges that that's correct.

MR. SIEBERT: Yes, we agree.

CHAIRMAN KOTELCHUCK: Okay then let's close it. It's not really an issue for us to discuss. .6

MR. FARVER: 266.6, NIOSH underestimated the missed neutron dose. This is a little bit unusual because this employee

was involved with -- we'll have to understand a little bit about the employee.

He was a radiology field operations person. That puts a little bit more emphasis on this. And was involved in, gosh, nearly 700 nuclear tests. And we thought that the neutron dose was a little underestimated since the only assigned doses were '61, '62, 1980.

Out of 30 years of employment and participation in nuclear tests. Okay, so that was the basis for the finding. I did read their response. And there is a section in the NTS TBD. And I believe it's an attachment or appendices -- attachment D, okay.

We read through the analysis. And what they did was reasonable based on their analysis.

CHAIRMAN KOTELCHUCK: Okay. Then let's close. Any objection?

MR. FARVER: No.

CHAIRMAN KOTELCHUCK: Okay. Good. 292.

MR. FARVER: Okay, next case is 292.1. Okay. Inappropriate assignment of '61 to '66 missed photon doses. I believe if I remember right, there was a section in the TBD where there were overlapping dates.

So it went from one period from '61 to '66, you did one thing. And then I believe it said from '66 to something else you do something different. So there was kind of an overlap.

And basically that is what prompted this finding. It has been changed in the 2010 revision.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: It's been corrected. But I believe it was an overlapping date.

CHAIRMAN KOTELCHUCK: Yeah. Well it sounds like there's agreement again and can close. We can close. Let's go on.

MR. FARVER: 292.2, inappropriate dismissal of occupational medical exams. Okay.

MR. SIEBERT: Doug, would you like me to go ahead and explain this?

MR. FARVER: Go ahead, I'm trying to find the file.

MR. SIEBERT: Yeah, that's fine. This really has to do with how we interpret NTS's responses on whether medical records are available. NTS does make a differentiation between what they call "not readily available", which means they didn't retrieve the medical file.

If that was the case we would use a default frequency. Or they also notified things as "does not exist", which means they did search through the medical records and there are no X-rays in the medical records. In that case we would follow the actual X-ray record, which would be to assign no X-rays.

So it's understanding exactly what NTS is saying when they're responding as to how to assess the X-ray.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: So, what I'm looking at is the records. So when there are no records, you would go and assign from the frequency that's in the NTS TBD, correct?

MR. SIEBERT: No, if there's -- it depends on how they tell us that there's no records.

MR. FARVER: Okay.

MR. SIEBERT: If they say -- if they state -- let me look at that working again. If a state does not exist, or specifically no records, that is correct, we will assume that there are no records available and they did look. And NTS took good care of their record, with their medical records and so on. Which means the individual did not get X-rays.

If it's marked as did not -- or not readily available, that means NTS did not go back into the records to pull out the information. And if we don't have that information, then we will use the default frequency.

CHAIRMAN KOTELCHUCK: That makes sense. And SC&A agrees, right?

MR. FARVER: I probably will for this case just because it's a telephone person.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: A maintenance person.

CHAIRMAN KOTELCHUCK: Then let's close it.

MR. FARVER: Is that something that needs to be clarified in the TBD? I'm just throwing that out there.

MR. SIEBERT: And that's a valid question. I need to -- I have not had a chance to look to see if it's been updated in the TBD or the DR guidance. And I am verifying that that information is available to the dose reconstructors. If it is not yet, I'm going to ensure it is.

MR. FARVER: Okay, because that would be useful.

CHAIRMAN KOTELCHUCK: Okay.

MR. SIEBERT: Oh, Doug, I'm sorry,

I just found out, it is in the DR guidance right now.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Good. Then we're ready to go on. Sorry, I'm trying to push ahead. Observation 1, 292.

MR. FARVER: Hang on until I get this updated Dave.

CHAIRMAN KOTELCHUCK: Sure.

MR. FARVER: I wanted to get all that information in there. And then it's in the guidance document so it doesn't happen again.

Okay. Observation 1. Okay, this is just pointing out that little --

CHAIRMAN KOTELCHUCK: Yeah.

MR. FARVER: Without the 1.25 correction factor.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Fixed in the revised addition.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: That's okay.

MR. FARVER: Observation number 2 points out what I said, this is a telephone person. And it is really hard to determine if he was a contract employee or not. And it just wasn't clear to me from the file or the CATI information.

So it's not really anything negative, it's just pointing out that it's not clear.

CHAIRMAN KOTELCHUCK: Alright.

MR. FARVER: Observation number 3 just points out a little discrepancy between the TBD and a couple of tables and that NIOSH corrected that issue. It looks like one was off by a factor of 10.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay, now down to 293.1 and there are findings of lack of assignment of 1964 environmental dose. Oh, okay. There's a time period during the atomic

testing where they did not use -- did not assign atomic, or did not assign environmental dose because it just wasn't accurately, you know, the ambient dose.

The more recent version of the NTS TBD explains it a little better than the version that was in place at the time. So we should not have this issue again.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay, what prompted it was the employee had no external dosimetry for 1964 and as of other years when there was no external dosimetry, he was assigned an environmental dose, will count for some external dose. But this was not done in '64.

That's what prompted the finding. But according to the TBD for that time period, they did not assign an ambient dose.

CHAIRMAN KOTELCHUCK: The employee was not on site in '64.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Right.

Well it sounds like there's no conflict here.

MR. FARVER: No.

CHAIRMAN KOTELCHUCK: So can we close it?

MR. FARVER: Sure, yes.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay, that was it for 293.

MR. SIEBERT: This is Scott, I'm sorry. Since we're looking at starting on Allied Chemical, is there any way we could take a comfort break about this time?

CHAIRMAN KOTELCHUCK: Oh, we certainly can and I appreciate your saying that. It slipped my mind.

Okay, it is 2:20.

(Whereupon, the foregoing meeting went off the record at 2:20 p.m. and went back on the record at 2:30 p.m.)

CHAIRMAN KOTELCHUCK: Yes, we're ready to go.

MR. FARVER: 237.1 Allied Chemical. The short story is the Dose Construction Report shows a DCF of one was applied to the doses when in fact a .873 was used.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Okay. Acknowledge that. And it happens. It's a reporting error. I suggest closing.

CHAIRMAN KOTELCHUCK: Yes. And there's agreement on that. There's no issue about the calculation. There's an issue about the communication within it.

MR. FARVER: Correct.

CHAIRMAN KOTELCHUCK: Close. Okay 237.

MR. FARVER: 237.2 The methods used to calculate the shallow dose.

CHAIRMAN KOTELCHUCK: One minute. We're just waiting for the screen to --

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: There we

are, thank you. 237.2.

MR. FARVER: 237.2 is a method used to calculate the shallow dose and is not consistent with the [inaudible] then in the Dose Reconstruction Report.

CHAIRMAN KOTELCHUCK: Let me scroll up just a wee bit.

MR. FARVER: Does John Mauro happen to be on the phone?

CHAIRMAN KOTELCHUCK: He was earlier.

MR. FARVER: Okay. Grady do you know anything about NIOSH going to revisit this issue as part of a review of the Site Profile?

MR. SIEBERT: Grady, I'll answer that if you want me to.

MR. CALHOUN: I always want you to, Scott.

MR. SIEBERT: No. The problem that comes out of this is that when you guys started looking at OTIB-17, you were looking at a gaseous diffusion plant example is my

assumption.

The fact that the dosimetry and beta dose being recorded at Allied Chemical is different than the gaseous diffusion plant doesn't mean there's anything wrong with OTIB-17 or its application. We just need to be clear how we're applying it.

In this case, we applied it appropriately with the electron doses because we were using the beta and skin results. It depends on the year of interest with the site.

So there's nothing wrong with the way the claim was done that I can see. However I can agree that it probably could be more clearly stated in the Technical Basis Document.

MR. FARVER: Okay. I actually understood your response. I didn't understand ours. Okay.

CHAIRMAN KOTELCHUCK: So this is clear, this is -- I don't see what we're keeping, why we would want to keep it open. It sounds like it's closable.

MR. FARVER: Well, I understand. Like I said, I didn't understand our response. That's why I was asking if John was on the line. He wrote it.

CHAIRMAN KOTELCHUCK: If you like, we can come back to that when John gets back on the line.

MR. FARVER: Okay.

MR. STIVER: I sent him a note asking him to call in.

CHAIRMAN KOTELCHUCK: Okay. Why don't we do that, folks. So we'll come back to 237.2.

MR. FARVER: The next one is something that looks almost similar. 237.3 is inappropriately assigned, unmonitored, external photon doses, as missed dosed.

And NIOSH does give a good explanation. And our response is that yes, that's a reasonable response and the TBD will be revised with clear guidance.

That's the part I'm not sure about.

But I mean that's -- we don't have a problem with their response.

CHAIRMAN KOTELCHUCK: And the TBD will be revised with clear guidance. NIOSH agrees to this?

MR. FARVER: I don't know if that's true or not. That's why I was waiting for my AWE person to get on the phone. Let's keep this open also.

CHAIRMAN KOTELCHUCK: Okay, until John comes.

MR. FARVER: Yeah, I'm just not comfortable with it.

CHAIRMAN KOTELCHUCK: Okay. I understand. Let's keep going on, next one, 4.

MR. FARVER: 4, incomplete accounting of external doses. This is the same as 237.

CHAIRMAN KOTELCHUCK: Yeah, right, okay. Let's go to 5.

MR. FARVER: This looks like it's similar to the first one.

CHAIRMAN KOTELCHUCK: It certainly does.

MR. FARVER: In the form of what was in the report and what was actually done. So it was calculated correctly. So I would suggest closing this one.

CHAIRMAN KOTELCHUCK: Okay. You want to close 271.5?

MR. FARVER: 237.5, yes.

CHAIRMAN KOTELCHUCK: I mean 237, okay, 6 -- 237.6. So I'm not quite sure why the PoC statement is even in here.

MR. SIEBERT: I can state that.

CHAIRMAN KOTELCHUCK: Okay.

MR. SIEBERT: This whole claim was reworked later on because of an additional cancer and went over 50 percent. So what we're saying, it's already been compensated, so we didn't look at the impact of PoC on every piece.

CHAIRMAN KOTELCHUCK: And that's reasonable. Okay, let's close.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: 7.

MR. FARVER: 237.7, I believe a missed uranium dose was underestimated. This appears to be the wrong unit. The correct intake unit should have been picocuries per day. And when it went into the CADW program, it was entered as picocuries per year.

CHAIRMAN KOTELCHUCK: Anybody from NIOSH comment on that?

MR. SIEBERT: Well, I'm sorry, I was just waiting for a question. Yes, I mean I can explain this a little bit clearly. I'm sorry, I wasn't sure if Doug wanted to say something.

MR. FARVER: Well, the other thing I was going to add is our question: How did those -- if the units were changed, why did the dose go down? Or why is the IREP unchanged?

MR. SIEBERT: Right, which is a very valid question. Let me clarify a little bit. Even -- and we agree that for the missed dose, those units were entered incorrectly.

It's just when we corrected it and looked at the impact of that, the reason the overall skin dose did not change, which means IREP didn't change as much, is the fact that although missed dose was underestimated, even when we corrected it, when you compare it to the fitted dose, remember you only assign the fitted dose or the missed dose, whichever one is larger.

There's only a single year where the missed dose is larger than the fitted dose. And it's barely larger. So there's very little -- there's very little overall impact to this issue. Although it does impact the missed dose itself. When you compare it, there's very little overall impact.

Does that make sense to you?

CHAIRMAN KOTELCHUCK: Um-hum.

MR. FARVER: So when you were comparing your missed doses with your fitted doses, and you had the units incorrect, there were probably more missed doses that were

higher than the fitted doses?

MR. SIEBERT: No. The missed doses as done originally were too low. If it's picocuries per year, and should have been picocuries per day --

MR. FARVER: Okay.

MR. SIEBERT: The missed dose should have been 365 times larger. So when we did apply that, and we re-compared it to the fitted dose, it had very little impact, because in only one of the years was [it] larger than this dose.

Originally none of it – for years [the fitted doses] were larger than this dose.

MR. FARVER: Okay. So you eventually used the fitted dose from the corrected one.

MR. SIEBERT: Correct. We used the fitted dose originally. And when we reexamined it, the fitted dose was larger for all but one year anyway. So only one of the years out of all the years changed.

MR. FARVER: But you're going to be bounded by one of them.

MR. SIEBERT: Correct.

MR. FARVER: Yeah. Okay, I understand.

CHAIRMAN KOTELCHUCK: Okay. Let's close. Sounds like closing is appropriate.

237.8. By the way, John Stiver, if you -- if you might give another call to John Mauro.

MR. STIVER: Okay, will do.

CHAIRMAN KOTELCHUCK: Definitely want to because we're nearing the end here of this case.

MR. FARVER: Okay, 237.8, questionable exclusion of positive bioassay data for estimated intake of non-uranium facility.

These non-uranium intake rates are based on uranium intake rates discussed earlier. It's the same as 237.6, which we --

CHAIRMAN KOTELCHUCK: Closed just a moment ago.

MR. FARVER: Which we've talked about and closed.

CHAIRMAN KOTELCHUCK: So --

MR. FARVER: I thought it sounded pretty similar.

CHAIRMAN KOTELCHUCK: I think it does.

MR. FARVER: I would suggest closing this.

CHAIRMAN KOTELCHUCK: I would agree. And again, anybody on the Subcommittee, if there are any concerns, just say so.

Okay. 237.9

MR. FARVER: Similarly. We have a missed non-uranium dose [that] was underestimated, which is going to be the same as 237.7 for the uranium dose. The question being, you know since the units changed drastically, why didn't the doses change

drastically?

CHAIRMAN KOTELCHUCK: And we just got an explanation for that.

MR. FARVER: It was because of the fitted dose.

CHAIRMAN KOTELCHUCK: So this one should be closed, I believe.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Okay. So .9 should be closed.

DR. MAURO: Doug, this is John Mauro. I was asked to --

CHAIRMAN KOTELCHUCK: Ah, very good.

DR. MAURO: I was asked to call in. There may be something I can help with.

CHAIRMAN KOTELCHUCK: Welcome.

DR. MAURO: Okay, yes. Good afternoon.

CHAIRMAN KOTELCHUCK: Let's go back to 237.2.

MR. FARVER: This is Allied

Chemical.

DR. MAURO: Okay.

MR. FARVER: And I don't know if you have anything to look at or not.

DR. MAURO: I don't have anything in front of me. No. But if you just tell me what the -- because I was associated -- I worked on Allied Chemical with I think, Bill Thurber and perhaps Hans.

If you let me know what the issue is, maybe I can help. Maybe not.

MR. FARVER: Okay. Let me go back to that finding, 237.2.

CHAIRMAN KOTELCHUCK: It's on our screens.

MR. FARVER: The finding is that the method used to calculate the shallow doses was not consistent with the dose reconstruction. And in the write up, the SC&A write up, we wrote that NIOSH's approach for assigning electron dose for external dosimetry appears to be based on the assumption that all

positive, open window dosimetry readings comprised an electron dose greater than 15 keV.

And while they're claimant-favorable, it does not follow the DR-cited guidance provided in OTIB-17. And then we cite the guidance in OTIB-17.

DR. MAURO: Okay.

MR. FARVER: The NIOSH response is that the section that was quoted in our report is for gaseous diffusion plants, it doesn't apply to Allied Chemical. In the case of Allied Chemical, exposure reports for '68 and '77, the site reported beta results in '68 and beta and skin results in '77.

In both cases the beta doses were used as the non-penetrating dose component.

DR. MAURO: Okay, so they're making a case that the low energy photons, I think that would be -- we're reconstructing the skin dose. I'm just trying to help out here.

And that the standard method is OTIB-17, which I believe you go through a

decision process by assigning either electron or photon exposures to that dose is the process. I'd have to go read it again.

But they're saying that no, at Allied Chemical, and they may be right, that allof the open window dose is the beta. Is that the position they're taking?

MR. FARVER: Beta for '68 and then beta and skin dose -- skin results were reported in '77 with a different dosimeter.

DR. MAURO: Right. But they're claiming that -- they're assuming that it's all beta and is being responsible for the open window exposure. Is that what -- as opposed to that saying whatever the protocol is in OTIB-17.

If I'm understanding this correctly. I may not be helping right now, but I'm trying to -- I did not make that comment. This is -- I would have recalled making that comment. It probably was made by someone else.

All I'm doing is trying to help out.

If that's in fact what NIOSH said.

MR. FARVER: Well, what I didn't understand was our response. It says it appears that NIOSH is going to revisit this issue as part of a review of the Site Profile.

DR. MAURO: And do they agree with that?

MR. FARVER: Is that true?

DR. MAURO: Well, I guess we have to ask NIOSH that.

CHAIRMAN KOTELCHUCK: Right.

MR. SIEBERT: Yeah, it's a valid question. This is Scott.

We are, as you know, in the midst of updating the TBD or the Site Profile as we speak. What we are stating is yes, that it is correct the way it is.

The site is reporting actual beta results in ‘68. And then the beta and skin results in, I guess, ‘77, as it has to do with this specific claim.

We have in the draft that we are

presently reviewing, we have added a separate table to the TBD that lists the reported dose quantities and the time frames to clarify for the dose re-constructors what is appropriate in what time frame.

DR. MAURO: Okay. So it sounds like you don't -- I mean are you attempting to close this issue at this time?

CHAIRMAN KOTELCHUCK: Well, we'd like to.

MR. FARVER: Yes.

DR. MAURO: And -- but we haven't seen the answer though. I mean in other words SC&A has not yet seen [what] that new approach is doing to this skin dose that you're developing. It has not been issued yet.

MR. SIEBERT: It's not -- it's not different then we previously were doing.

DR. MAURO: Oh, okay. So nothing is changing.

MR. SIEBERT: Right.

DR. MAURO: So you're saying the

approach that you're using right now you're going to keep, but you're -- you know, so nothing will change, but you have some other material that you're putting forth to support this approach?

MR. SIEBERT: And to clarify how to approach it during that time frame so these questions don't arise. That is correct.

DR. MAURO: I got you.

MR. SIEBERT: Okay.

DR. MAURO: Well, all I can say is that you know, I certainly believe you. That that's the case.

But normally, what happens with something like is that if in fact your rationale for doing it the way you're doing it is not provided, or your working on it. And it hasn't really been issued as: Okay, here's the rationale why what we did is a better explanation or technically supports the position you're taking. We usually look at that.

So I mean I'm not sure how you'd like to handle this. I believe that you probably are comfortable with your new explanation. And that if we had a chance to look at it and think about it a little bit, we'd probably come back and say everything's fine.

But I hate to do that because we really haven't seen it. You know, right now you're saying trust me, you know, everything is going to be fine.

MR. SIEBERT: No, we're not.

DR. MAURO: I don't know how --

MR. SIEBERT: We're not saying that the Allied Chemical calculation is correct as it stands.

DR. MAURO: Right. And it had a reason for it that had not yet been explained.

MR. CALHOUN: I don't think that's a reason to keep the finding open.

DR. MAURO: I mean right --

MEMBER CLAWSON: Well then tell us what you've -- tell us what you've done new

then. Tell us what is changed from this.

MR. CALHOUN: I think it's up to you to tell us what's wrong.

DR. MAURO: Well, all we were saying is the methodology that you followed, of course right now I'm winging it, I mean --

MR. SIEBERT: Sure.

DR. MAURO: I'm winging, I'm basically saying the comment I think stems from looking at how you reconstructed the dose based on, I guess, the combination of the open window, the penetrating, the non-penetrating portion of the dose.

The way -- there's a protocol you follow in OTIB-17, which we have reviewed and approved. I mean OTIB-17's clean.

And from the comment that I just heard, it sounds like that you didn't quite follow OTIB-17. You did something a little different. And you're saying right now that you have a rationale for that. That you know, that we haven't seen yet.

And I guess that's all I'm saying is that it sounds like we're on a reasonable process, but can we close out on that basis? Normally we wouldn't.

I mean I'd find -- normally we would say well, you know, let’s see the write-up on the rationale why you deviated from OTIB-17.

MR. SIEBERT: Well John, this is Scott. I'm looking at your finding. And the finding specifically says we did not follow OTIB-17, page 26.

DR. MAURO: Okay, like I say, I didn't write that, but okay, keep going. I'm --

CHAIRMAN KOTELCHUCK: Okay, go ahead.

DR. MAURO: Help me help you.

MR. SIEBERT: Okay, and that's okay. And then page 26 is one of the examples on how to assess skin dose. It's Attachment D. It's an example of how to assign skin dose for gaseous diffusion plant cases.

DR. MAURO: Oh, okay. Okay.

MR. SIEBERT: It's not a gaseous diffusion plant.

DR. MAURO: Ah, so you're saying that the -- by the way, as I said, this is not -- I'm just trying to get with you. I didn't make that comment, but I understand what you're saying.

So you're saying basically that the comment we had really was misplaced.

MR. SIEBERT: Correct.

DR. MAURO: We were making a comment that would be applicable to a gaseous diffusion plant, but not at Allied Chemical.

MR. SIEBERT: That is correct.

DR. MAURO: And I believe that. So you do follow OTIB-17, I guess that's the point, is that what you're saying, as it applies to Allied Chemical?

MR. SIEBERT: I'm going to say that's correct. I'm going to be more comfortable if Matt Smith can weigh in on that.

But I'm not sure if he's had a chance to look at this one specifically.

MR. SMITH: I have not. This is Matt. I haven't immersed into the Allied Chemical Site Profile. But I'm more familiar with sites that are not described in the attachments of OTIB-17. The same methodology is used with each of these sites.

And typically what they'll do is they'll cite the TBD -- I'm sorry, they will cite the OTIB-17 as a methodology. And then explain in the TBD itself what it is intended to do.

And it would seem logical for Allied Chemical that the non-penetrating dose would be classified as electron dose for this site, not low-energy photon.

DR. MAURO: And I would agree with that. I have to say, from what I'm hearing, and I know you guys like to move through these. I don't want to tie you up.

We made -- we made reference to that

page 26 that was in error, because it didn't apply. And what I'm hearing from you is that when it comes to Allied Chemical and the nature of the material handling, was it mostly uranium? I'm thinking back to so many sites.

Your position is that no, beta dose would by far dominate the exposure. And that's the appropriate assumption to make.

If that's your position, I would agree with it.

CHAIRMAN KOTELCHUCK: So, and I think we called you back because Doug was not clear why SC&A had written what SC&A wrote.

So I think we are moving to clarification and my feeling is that we can close this.

DR. MAURO: I would not argue with that. I think that our comment was misplaced. I, you know, because we made reference to an example that really didn't apply to Allied Chemical.

And what we're hearing from NIOSH is

no, that they assumed that they did follow OTIB-17. And as applied to Applied Chemical, you would assume it's all data.

I can't argue with that. So I mean it sounds like we should withdraw that comment.

CHAIRMAN KOTELCHUCK: Okay. So we're ready to close. And what we might want to do is, if you would just like for one moment, I think 237.3 had a similar issue. And could we go to that?

MR. FARVER: 237.3 inappropriately --

CHAIRMAN KOTELCHUCK: No.

MR. FARVER: Unmonitored external photon dose as a mixed missed dose. The --

CHAIRMAN KOTELCHUCK: I guess it was that TBD would be revised. And that's true.

DR. MAURO: In a situation like this where we may have had a comment and NIOSH's response is yes, we agree. And a TBD is about to be revised. Usually, I know on the

Procedures Subcommittee, we call it "in abeyance".

That means in effect we agree that there's a need to fix something. And things are being changed. We're changing one of our procedures, if that's what I'm hearing.

You don't actually close it until that particular change is made. But you folks may feel that you know that that's good enough. Is that what I'm hearing, that you --

MR. KATZ: John, that's right. That applies to Procedures. But it doesn't really apply for Dose Reconstruction.

DR. MAURO: But am I correct that NIOSH agrees that there's a need to address and make some changes here using some procedure that's about to be revised?

CHAIRMAN KOTELCHUCK: Scott or Grady?

MR. SIEBERT: Generally in the past, and Grady can correct me if I'm wrong. But generally in the past once we said in this

Subcommittee, if we admit there's something that we want to update in the TBD, I believe it's just been closed and agreed to that we will do so and move forward.

In this case, I mean, technically the TBD is correct the way it is, it's just not as clearly stated as it could be. And that's what we're clarifying in this version of the TBD that we're updating right now.

DR. MAURO: Oh, okay. So it's not that your making any changes, you're just giving better explanations that would justify what you're [doing] --

MR. SIEBERT: The 1969 data is not as clear as it could be, the description in the TBD and we are updating that as of today, yes.

DR. MAURO: And you feel that after you make that update it will become -- it will be easier to understand the approach you've used?

MR. SIEBERT: Correct.

DR. MAURO: I see.

CHAIRMAN KOTELCHUCK: Sounds reasonable.

DR. MAURO: I'm okay. I mean I can't argue with that.

CHAIRMAN KOTELCHUCK: Okay. So let's close that one as well. And I think those were the -- did we have any further ones Doug that you wanted to ask John to help us with?

MR. KATZ: We didn't close yet because it was perhaps similar to 237.4.

CHAIRMAN KOTELCHUCK: Yeah, yeah.

MR. FARVER: 237.4 is the same response --

CHAIRMAN KOTELCHUCK: Same issue.

MR. FARVER: .3 except it applies to the shallow dose.

CHAIRMAN KOTELCHUCK: Okay. So we should close.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: And 5 we have closed I believe.

MR. FARVER: Correct.

CHAIRMAN KOTELCHUCK: Okay. Then I think we're ready to move on to the next case.

MR. FARVER: Ready to move on to what is observation.

CHAIRMAN KOTELCHUCK: Okay. Alright. And maybe John you'll be with us for this observation.

DR. MAURO: If you want me to sit tight with you for a while, I'd be glad to.

CHAIRMAN KOTELCHUCK: No, I think it was just this one case.

MR. FARVER: Well we've got another Allied Chemical case, so.

CHAIRMAN KOTELCHUCK: Okay, well fine.

DR. MAURO: Okay. I'll stay on the line.

CHAIRMAN KOTELCHUCK: Thank you.

DR. MAURO: Okay.

MR. FARVER: Observation 1, NIOSH claimed organ dose from dosimeter readings used to central estimate DCF for AP. And a 1.3

multiplier to insure claimant favorability.

So this method is claimant-favorable, [but] the basis for selecting a 30 percent bias over some other value was not provided in the narrative.

MR. SIEBERT: This is Scott. It's pretty much the same sort of issue. It's not wrong in the Site Profile. But it's not as clearly defined as we would like.

So it's the same thing. We are clarifying exactly how to be assessing those type of things and factors and uncertainty in the present version of TBD.

DR. MAURO: Did you -- you said -- this is John. Did you say, we're talking about the AP dose conversion factor. And the way in which you used it was to use the central -- or I guess they're using a triangular distribution.

I'm just trying to be helpful here. When I go into the dose conversion factors and OCAS-001, IG-001 -- usually for the dose -- we

are talking about the dose conversion factors, is that correct?

MR. SIEBERT: Yeah, John, I'm going to stop you, because that's not the issue. The issue is you get a factor of 1.3 to basically use an overestimating assumption of the errors rather than doing an actual error calculation around the readings themselves.

It's not the DCF. That was just mentioned as part of the process that comes out of OCAS-IG-01.

DR. MAURO: I misunderstood. So you're just using the 1.3 as a fixed value rather than a distribution? In other words rather than put a distribution?

MR. SIEBERT: That's what was done in this case, correct.

DR. MAURO: That's not often though. My experience in doing these DRs, and Doug help me out a little bit here, I know that sometimes when the calculations are being done, they'll put in a distribution for the exposure.

Or they multiply it by 1.3 and put in a fixed value for external exposure readings.

Correct me if I'm wrong.

MR. FARVER: Nope. You're pretty much correct. Usually every time we see the 30 percent is under the occupational medical section.

DR. MAURO: Okay. And this is for occupational external exposure?

MR. FARVER: This is -- yes. This is for the photon.

MR. FARVER: Oh, I see, okay. Doug I'm going to have to defer to you. Because you probably -- you've seen a lot more of these than I have. I've seen the 1.3 multiplier without putting the distribution in.

My recollection is that it was, yes, done. And may have been done for x-rays. I'm not quite sure whether it was also done for occupational external exposure, you know, based on whatever the film badge results are.

MR. FARVER: Well I mean it's like

sometimes it's not wrong. But it's not normally what they would do.

DR. MAURO: Yeah.

MR. FARVER: I mean it is just an observation, so we really don't have to do anything.

DR. MAURO: Yeah.

MR. FARVER: We were just pointing out that this isn't normally what you do.

CHAIRMAN KOTELCHUCK: Right. And I think that is an observation, so in progress if you want to keep it there. But the reality is we don't act on observation.

I'm ready to go on.

MR. FARVER: Okay. We've got one more observation. Observation 2 has to do with the medical dose.

MR. SIEBERT: I'm sorry. I was unclear, was that closed then?

MR. FARVER: Well, it's an observation.

CHAIRMAN KOTELCHUCK: It's an

observation. So we don't --

MR. SIEBERT: Okay then. I'm just making sure. Okay. Yeah, go ahead.

CHAIRMAN KOTELCHUCK: Yeah, so we're finished.

DR. MAURO: Well I'd just like to ask a little bit.

CHAIRMAN KOTELCHUCK: Sure.

DR. MAURO: Given that it's unusual, I mean, was there any reason in this particular case where something was done differently than what you normally do? Or just, these things happen?

MR. SIEBERT: That's a valid question. While you can't tell, but I've been frantically looking to grab a case here real quick.

My suspicion is that we didn't have a best estimate tool for that site at the time, which would have applied the errors. So they may have used the 1.3 as a work around until we had a tool because this is not a small site.

But there's not nearly as many claims from this site as, you know, your Hanford's or your Savannah River's. So getting a best estimate tool may not have been as pressing.

That's really my first guess on that. But that's the kind of situation it would not surprise me if we did that sort of thing.

DR. MAURO: I mean that sounds like a reasonable explanation because I know when I check things, I don't work with a tool. I usually say, okay, I'll do it by -- I try to do everything by hand and see if I can closely match your numbers.

And what I would do is just what you did. You know, say listen, let's work with a 1.3. So to me I think that you're saying we had a circumstance where we didn't have a tool, so we used the -- what I would call a plausible bounding number as a fixed value rather than a distribution.

MR. SIEBERT: Yeah.

DR. MAURO: So I need that, okay. Alright.

MR. FARVER: Okay. Observation 2. The presumed lateral exposure would have increased the employee annual skin dose by a factor of 2.5, which would have been more claimant-favorable instead of using a PA exam.

Okay, that was observation. It would have been more claimant-favorable. NIOSH gives their explanation that basically the Allied Chemical Site Profile, we specify the time to predict for an exam, should be based on current values, which at the time was PA chest exam. And there was no information that lateral exams were conducted as part of the medical program at Allied Chemical.

DR. MAURO: I'd be happy to jump in on that. I agree.

MR. FARVER: Okay.

DR. MAURO: You don't normally assume that you have lateral unless there's affirmative evidence. You usually default to,

you know, you don't automatically go to the lateral.

The only time I ever, when I do a review, use lateral, is when it's said that yes, we have evidence that lateral -- because those are higher than the PA. But if they're silent regarding that, and you don't have information of the type of, whether it's lateral or PA, I think it's appropriate to use PA.

Lateral sort of like only comes into the picture when someone says that's what we did. So I mean I sort of, I guess, I agree with NIOSH's position.

MR. FARVER: Well, it was just an observation.

DR. MAURO: Oh yeah. Right. Okay.

MR. FARVER: And then the third observation has to do with uranium intakes. NIOSH applied an unnecessarily complex approach in assigning the acute intakes. This may not have always been claimant favorable.

NIOSH agrees that assigning multiple intakes is likely overly complex. We could have considered more closely indications of incidents in the bioassay records.

I don't know, I'm not sure what's so overly complex, but once again, it was just an observation.

CHAIRMAN KOTELCHUCK: Yeah, alright.

MR. FARVER: Ah, one more. Observation 4. SC&A believes the employee may have been denied health compensation as an unintended consequence of the restrictions imposed by the SEC. And containment is feasible to reconstruct the employee dose for non-uranium radionuclides during the AWE period.

It looks like that was an SEC determination. I mean a --

DR. MAURO: Is that an observation?

CHAIRMAN KOTELCHUCK: That's an observation right?

MR. FARVER: It's an observation.

DR. MAURO: I would have made that a finding. You're saying that there was a dose that they did not calculate that they could have calculated and at least given some dose.

That was -- because very often, when I review these cases, every effort is made for a guy with skin cancer. I assume this is a skin cancer?

MR. FARVER: I believe so.

DR. MAURO: Yeah. Every effort I've seen, you know, in NIOSH's dose calculations, whenever they can, for a person who's been excluded from the compensated group under an SEC, like a skin or a prostate cancer. Every effort is made where they could to try to assign dose, you know, wherever they can.

And if this is a circumstance where, let's say it's a residual period were there are protocols that you could default to to try to assign some dose, normally that's done. And to try to give the guy as much as you can.

Usually what happens is when you don't do that is, let's say the SEC is because you can't reconstruct the inhalation of thorium. That's like a classic one.

MR. FARVER: Okay.

DR. MAURO: And then don't even try to assign anything. You can't. You can't. There's no way for you to even come near it.

But I don't know the reason for whatever the SEC was granted, but if it's possible to do the residual period based on, you know, some of these uranium default approaches like TBD-6000 or OCAS-70, my experience is normally NIOSH would try to assign some dose there if they could.

MR. CALHOUN: John, this is Grady. I didn't respond to this one. But based on what our response is, it looks to me like this SEC Evaluation Report specifically states that the internal can't be done from another facility during that time.

DR. MAURO: The internal during

operations? And as a result, you're saying that extends to the residual period also? Is that what --

MR. CALHOUN: Yeah --

CHAIRMAN KOTELCHUCK: I wish that -- could somebody recall for me, I thought we turned down the Allied SEC. The Board did. Is that correct? Or did we grant an SEC for some period?

MEMBER MUNN: I'm sure it was granted if it was voted on. I don't know, but I can check on that.

CHAIRMAN KOTELCHUCK: If somebody would. And then are we talking about someone who has exposures beyond the SEC period? Or insufficient exposure during the SEC period to be compensated and we're then trying to calculate what exposure is. I'm just unclear.

MR. FARVER: I believe this applies to what non-uranium intake.

MEMBER MUNN: Probably.

DR. MAURO: Yeah, that rings a

bell. SEC was granted for -- they could reconstruct uranium, but not the non-uranium. We granted on that basis.

That does -- I'd have to go back and look at this -- but that sounds like something I've seen before.

CHAIRMAN KOTELCHUCK: Okay.

MR. SIEBERT: I would like to point out -- this is Scott. In the finding -- or not the finding, the observation, they're specifically talking about the time period up to ‘76 which is still the operational period.

MR. KATZ: Right. They're talking about the operational period.

DR. MAURO: Okay.

MR. SIEBERT: I'm sorry, I'm just reading as I'm going along here. I apologize.

But yes, the observation's saying that we -- we being SC&A -- contended it's feasible to reconstruct the EE doses from non-uranium radionuclides during the AWE period, which is the operational period.

And that question has already been answered in the SEC that states we cannot during the operational period.

DR. MAURO: Oh. Oh, okay. I mean if that's -- if that in fact is the basis, or one of the bases for the SEC, you know then our comment is not right.

MR. SIEBERT: Right.

CHAIRMAN KOTELCHUCK: Yeah.

MEMBER MUNN: It looks like there is an SEC for Allied.

CHAIRMAN KOTELCHUCK: Pardon?

MEMBER MUNN: From January 1, '59 to December 31, '76. There is an SEC for Allied Chemical.

CHAIRMAN KOTELCHUCK: Okay.

DR. MAURO: And is this for non -- and the reason, the rationale, is they can't reconstruct non-uranium exposures? I wouldn't be surprised if that's the case.

Usually you can reconstruct uranium exposures because of TBD-6000, but you have --

MR. SIEBERT: John that's correct. That is the reason.

DR. MAURO: Oh, okay. And the comment we had is that we think you can do non-uranium. Well, not if that's the basis for the SEC. So I don't know when we made that comment, but it sounds like that's right.

CHAIRMAN KOTELCHUCK: Then we should move on.

DR. MAURO: Yes.

MR. FARVER: I know sometimes that if you have data for the employee, they'll --

DR. MAURO: Oh, yeah.

MR. FARVER: Use it.

DR. MAURO: Absolutely Doug. Hey I'm sorry if I'm stomping all over the place.

CHAIRMAN KOTELCHUCK: No, no, no.

DR. MAURO: Yeah, I do that on the phone. But yeah, you're right. If this fella had data, biologic data that somehow you could reconstruct the non -- but I'd be surprised.

Because usually the biologic data

you have is, you know, gross alpha for uranium or you'd have a milligrams or micrograms per liter that you would use for the uranium. But the non-uranium isotopes you usually would have a problem.

You know we'd have to look at it. But I would agree that if it's the non-uranium isotopes, it's usually difficult to reconstruct those doses.

MR. FARVER: It looks like there were some whole body counts and chest counts.

DR. MAURO: Oh, okay. Okay.

MR. FARVER: Which that goes back to the NIOSH response that you could not put a -- it was not bound and there was not a bounding scenario.

DR. MAURO: Okay.

CHAIRMAN KOTELCHUCK: Let us go on.

MR. FARVER: Okay. Case 258. 258.1. Another Allied Chemical case.

The first finding is NIOSH did not account for all missed photon dose. And let's

see if I can get a little bit more info. It is this -- missed photon dose.

We found dosimetry records contained the summary of the quarterly photon readings for all years as well as monthly readings for all years except 1967. There did not appear to be any readings in 1976 and the first three months of 1980.

NIOSH did not assign missed dose for those months. And it would have been claimant-favorable to assign missed dose for those periods since the worker was consistently monitored for external and internal.

Okay. In their response they say -- there are reports that '67 probably should be '69. Quarterly; no monthly.

MR. SIEBERT: I can talk you through this, Doug, save you a little bit of trouble.

MR. FARVER: Thank you.

MR. SIEBERT: No problem. We agree that there was only monthly cycle data

available at the time. But looking at the surrounding years, it's reasonable to assume that monthly exchange cycles were actually occurring.

So we've updated the DR guidance. We agree that monthly is reasonable in this case. We've updated the DR guidance to reflect that monthly exchanges would be appropriate during that time frame.

And I believe that is also being integrated into the new Site Profile to clarify that.

MR. FARVER: Okay.

DR. MAURO: I have a question, if you could just help me out a bit, so you're agreeing that not enough missed dose was assigned to this worker? Done with the monthly, presumed monthly, change out.

MR. SIEBERT: Right. Well what we're saying is the TBD as it was written previously didn't address this situation. Further digging, it's reasonable that

monthly -- the actual records give us quarterly values. But with a little bit more digging, it's reasonable to assume that monthly badging was actually going on at that time.

So we've updated the guidance to reflect that. And we're agreeing that that would have been a reasonable assumption in this case.

DR. MAURO: So what did we do by way of process? What you're saying is if you were to do that particular dose reconstruction today, you probably would have assigned this dose on a monthly change-out basis.

That being the case, by way of issues resolution and dealing with this particular claimant where you say: Well, if we were to do it today, we'd probably do it a little differently. What do you do in a circumstance like that?

MR. SIEBERT: Right. And once the Technical Basis Document, actually it's the Site Profile, is updated and approved, then it

will go into the PER process and this person would be reconsidered under new guidance.

DR. MAURO: The only thing I have to say about that: When is a reason to think that maybe this would be a reversal? Sometimes when we do our reviews is very rare, but we do it, we have a finding that [we] say gee, I think this one is a real one and it looks like a reversal.

What we typically do, and we took this guidance from TBD, is we would immediately inform you folks so that you could look at it. Because normally you don't want to wait too long to act on one that might really be a reversal.

So the only thing I would ask is that since this one, you might think that it should be redone, and maybe will be redone as part of a PER. Is there any reason to believe that the magnitude of the dose was changed to such an extent that you could actually get a reversal?

MR. CALHOUN: John, this is Grady. And this is about the third or fourth one of these we've come up with in the last two days.

And yes, we are, we do do that. We've taken these few cases, and we'll do a more close review of it.

However, we've got to do the dose reconstruction to an approved document. So we've got to wait until the document is approved before we do -- that's what drives the PER.

DR. MAURO: Oh, I understand what you're saying. But you know, there's the other side. The other tension to the problem is if there's good reason to believe you've got a reversal, this is a policy that you folks have to -- you know if there originally was a reversal, I think you got to jump on that right away.

MR. CALHOUN: And we absolutely would do that if an approved document caused that reversal.

DR. MAURO: And you wouldn't do it now?

MR. CALHOUN: Not with it --

DR. MAURO: Notwithstanding the

fact that the approval process is in the mill, but you know where it's going. And you know that you --

MR. CALHOUN: We don't know where it's going on all the cases. Because a lot of times these documents are hung up in committees just like this. There's not a lot of back and forth until we get concurrence from you guys.

But a lot of times they're not in that. A lot of times they're just between us and ORAU and between ourselves.

So I don't know where this one is specifically. If this is Allied, it looks like it's ready to be approved in June of this year. But certainly we can go back and look and see if we think that it's pretty concrete. And we can go back and take a look at it.

But we can't reverse it until we've got an approved document.

DR. MAURO: By the way, do we have a case here that looks like it might be reversed on this basis?

MR. FARVER: This is Doug. No.

DR. MAURO: No. Okay, that's all I wanted to know. We know when they're going to be reversed, I mean, if you agree with the comment. And this sounds like it's not one.

I would say this again, poking my nose into your business here, but I think it's very important that the Board weigh in on this particular matter.

When SC&A on that rare occasion says, gee I think we've got a reversal here. I don't think you put that in the queue waiting for the PER to be issued, waiting for the Work Group to get to [it] -- even to get to this point where you are now -- waiting for it to come into the attention. Because you know we're on what, set number 19. And right now I guess you're reviewing 10.

CHAIRMAN KOTELCHUCK: 10 to 15. This happens to be the 12th set.

DR. MAURO: Oh, we're up to -- oh, congratulations. That's great.

What I'm saying is when, even like today, if we were doing this DR review and we saw something and say gee, I think this might be a reversal. It's my understanding, and Ted please help me out here, that we immediately inform Ted, the Work Group, --

MR. KATZ: Right.

DR. MAURO: And I think NIOSH, that we got something here that we think you should look at as soon as possible.

MR. CALHOUN: And we've done that and there's one that really -- that really could slip. And I don't know if we'll go over it today, I don't think we will.

But it's the only one I know of actually. But anyway, we've already requested a return from DOL on that one because it was based on a document that was approved.

I got to keep going back to a document that was approved. Because if we think something might flip because of something that we might do -- you certainly can't be

advocating that we complete an official dose reconstruction based on a document that doesn't exist.

DR. MAURO: Well, I mean I --

MR. CALHOUN: And it's contrary to existing documents.

DR. MAURO: To me, you see this idea that there has to be this document behind it, no, there's good science that's behind it. And then as a you know, do you decide to -- I can't see a guy waiting here for a year or two or three to resolve some document that's about to go through a PER process. And meanwhile he's waiting on his compensation decision.

In this case, Doug, I believe that obviously, and I know you know you're judgment is this is not a reversal. So it's okay to put it into the queue. We know it's not going to be reversed.

MR. CALHOUN: But we depend, and let's not lose [sight of] the fact that we do look at those very closely.

DR. MAURO: Okay, okay.

DR. H. BEHLING: This is Hans Behling. I need to jump in here because you're touching on something that's very, very important to me on the case. And if I may, I'll take a couple of minutes.

Because this was the case that was supposed to be potentially reviewed sometime today, but I know we're not going to get there. But based on the fact that you touched on this very issue, John, I feel I need to at least make a comment here.

And if I may, I will give you some of the details about a case that is several years old. And it involves a dose reconstruction involving a person who was part of the PPG, the Pacific Proving Ground. And that particular claim was adjudicated back in 2011.

I reviewed the case and was doing a one on one with the Board Member and I can even tell you who that Board Member was. He thought

that this was important enough to bring it immediately to the attention of NIOSH and have it looked at again. Because the evidence that I provided on behalf of that case, and [it] was compelling and it would have been obviously -- could be compensated.

I never heard another word about it. And this case is coming up again here as a part of the 14th case set. And one of the things that has happened was that it was based on a Site Profile for the PPG, which I only recently reviewed in 2013. And I came up with an awful lot of problems associated with the PPG Site Profile.

And my recommendation now is to once again postpone the review of this particular dose reconstruction. Because most of the problems identified on behalf of this dose reconstruction are really problems I identified in behalf of the issues that involve the Site Profile for PPG.

And we've discussed it before. I

think Wanda Munn was going to pursue an approach that we would set up a committee so that we'd look at the PPG Site Profile. And once again, this case has been on hold now since 2011.

And again, depending on how soon that particular committee will be appointed, how long it will take to review the Site Profile, this case will probably be on the sidelines for five years. And I have very little doubt that this case will be turned over because of the serious findings that I identified on behalf of not only this case, but the Site Profile on which it was based.

DR. MAURO: What we have here is, I think, a question that we will immediately report back when we see something that might be a problem when that occurs as Hans just pointed out. And there were two cases in the last round of reviews that we did that we did do that.

We sent an email out alerting the folks, you folks, that we think we have a couple of reversals here. And that was -- that's our

ground rules now that we follow.

But it sounds like that once it makes it to that point, we're not quite sure what happens to it. Is it acted on immediately? Or is it put, you know, into the basket and waiting until let's say other documents.

And this [is] really none of our business. Believe me, I feel as if I'm trying to speak to you, you know, a little out of turn here. But it sounds to me that this is something that needs to be talked about a little bit more.

MR. KATZ: Now John, I mean, let me explain. Because I think Grady tried to explain.

But yes, you said for example the two cases you provided to me to NIOSH, just as you were saying. And Grady responded in part, one of those cases may be a flip.

And they're acting on it in due course, because the problems with that case

were related to procedures that are in place. So they can fix that right away.

So if you follow the logic of that, if that turns out to be all as I just said, they will redo that dose reconstruction because they have the procedures to redo it. And if it flips, that person will get compensated and that will all be done --

DR. MAURO: Quickly.

MR. KATZ: In haste, right. Just as -- just as you envisioned.

The other situation you have, is you have cases where the procedures themselves, the current procedures do not support a change necessarily. But you have a concern, or someone has a concern, that the procedures aren't right. And they're causing a wrong outcome for the cases.

And it's not going to be just one case then because the procedures are for the whole site or what have you.

DR. H. BEHLING: And Ted, this is

Hans again. The issue here is complicated by the very fact that the particular PPG individual's dose reconstruction was based on the Site Profile which we never reviewed. This Site Profile --

MR. KATZ: I understand. So I'm just, because I really don't want to hijack this whole meeting with this, because this is really kind of detrimental to trying to just get through the cases we're trying to get through.

But so, what I'm saying anyway, is where the procedures themselves are potentially the problem, because SC&A or I guess it's generally it would be SC&A or a Board views that there may be issues with the procedures, that those procedures have to be resolved first.

They can't crank out a new dose reconstruction until they've resolved that indeed NIOSH agrees the procedures need to be changed. And they have to go through their process to change their procedure.

So they can't just crank out a dose reconstruction before they've resolved all the issues related to that procedure. And that's just a, you know, sorry fact of the matter.

And it may be that SC&A's absolutely accurate, and the procedure needs fixing. But until it's been resolved, you know, you can't get to the answer there. And that case does have to sit.

DR. H. BEHLING: Well, as I said, I was hoping that we had talked about it before. And I believe Wanda had taken on this to herself.

MR. KATZ: Hans please. So I know that we've had this discussion in Procedures. We've actually -- it came up at the Board teleconference too. And we can carry on this discussion further outside the bounds of this Subcommittee meeting. But we're really hijacking this meeting by, you know --

DR. MAURO: Fair enough, fair enough, Ted. I understand.

MR. CALHOUN: Can we just end the conversation though with somebody sending me that case number?

DR. H. BEHLING: Okay.

MR. CALHOUN: The claim, because I got the two other ones. But I don't have that one off the top of my head. So send me that one and I'll make sure it gets looked at.

MR. KATZ: Okay, Hans.

DR. H. BEHLING: Okay.

MR. KATZ: Yeah, Hans will send it. Go ahead and send it to me, Hans, so I have a record too of it.

DR. H. BEHLING: Okay.

MR. KATZ: Thank you.

MEMBER MUNN: Thank you folks.

CHAIRMAN KOTELCHUCK: Okay. Let's go on.

MR. FARVER: Okay. I just want to mention one thing to Grady. This has to do with Tab 250 from yesterday. This is the case that had the MAP air, about months. Seven months

versus 7.9 months.

And it really has nothing to do with changing procedures. But that MAP air correction, we'll bump it up about 13 percent. And we'll likely change the PoC and reverse the case.

MR. CALHOUN: Yeah, I don't know, I'm lost here. What are you talking about? Is this something that we've done?

MR. FARVER: The case from yesterday, a Y-12 case.

CHAIRMAN KOTELCHUCK: This was from yesterday you were saying -- you said earlier you were going to see if you could look into it today.

MR. CALHOUN: Oh, okay.

CHAIRMAN KOTELCHUCK: You earlier today said it's not going to be possible.

MR. CALHOUN: The B data, is that the case?

MR. FARVER: No, no. This has to do strictly with --

CHAIRMAN KOTELCHUCK: No, the .49 years versus months. Six months versus .49 years.

MR. CALHOUN: I'm too old, I forgot.

MR. SIEBERT: This is Scott. Let me jump in. Grady did yesterday task us to look at that one specifically.

The dose reconstruction, we're doing it on our side and reviewing it along with all the present day changes in documentation as well. And we will get that answer over to Grady as soon as we can.

CHAIRMAN KOTELCHUCK: Great. But let's go on folks. We basically -- we're --

MR. FARVER: Okay, I just wanted to say something to you about a little change.

CHAIRMAN KOTELCHUCK: This is moving all around now at this point. And we need to move ahead. Even though I understand these are important issues, but --

MR. FARVER: Okay. 258.2.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: Okay. NIOSH did not address the possibility that the worker was exposed to enriched uranium and this was based on something in the CATI report, I believe.

And I'll -- this is one of these issues where it would have been nice if they would have put a statement in there acknowledging it. And NIOSH agreed it would have been nice to acknowledge that, okay.

So there's no real action to it.

CHAIRMAN KOTELCHUCK: Yeah.

MR. FARVER: So our action is we all agree it would have been nice to include a statement in there. But --

CHAIRMAN KOTELCHUCK: Yeah, it's hard to think of that as a finding as opposed to an observation. But --

MR. FARVER: Well I suggest closing it because there's really no more action to it.

CHAIRMAN KOTELCHUCK: Right. Okay, let's close. Observation 1?

MR. FARVER: Observation 1, the report should address the potential exposures associated with direct deposition of airborne particles on skin. You know potential skin contamination.

NIOSH agrees that according to the Site Profile, conditions existed at Allied Chemicals that might result in skin contamination. And they're looking in to see if more incidents of skin contamination reports are available, but there is no -- there was no answer at the end of January.

MR. SIEBERT: And this is Scott. Correct me if I'm wrong, but I believe this is the general issue, that's an overarching issue with the Procedural Subcommittee. I mean Wanda can --

CHAIRMAN KOTELCHUCK: That's correct.

MR. CALHOUN: That's definitely correct.

MR. FARVER: And that's probably

why it was just made an observation and not a finding.

MR. CALHOUN: Right. And my guess is that we're not going to get into the business of making up skin contaminations.

MR. FARVER: No.

DR. MAURO: This issue has been resolved. And it's all -- it's under the Procedures Subcommittee. All matters related to -- we're calling this localized skin contamination issue. How they're going to be dealt with was addressed and resolved at the last -- I believe the last or the one before -- Procedures Subcommittee.

So there is, and I think that is whatever you're doing here on this particular case, if it's in accord with that agreed-upon protocol, you know, I think you're fine. But if there is a need to do something different in light of this most recent agreement on how this is all going to be done, you know, it may need to be revisited.

CHAIRMAN KOTELCHUCK: No. This is -- this is an observation. It is in progress. It is something that the Procedures Committee is dealing with, or has dealt with.

DR. MAURO: I think it has -- is Wanda on the line?

MEMBER MUNN: Yes I am.

DR. MAURO: Wanda, am I misrepresenting this about? I think that's resolved.

MEMBER MUNN: No, it was. My recollection is that we resolved it, yes. I don't think we have any outstanding issues with respect to skin contamination.

DR. MAURO: Right.

MEMBER MUNN: I'd have to go back and check the minutes myself. But I do believe that's the case. I think we've put that to bed.

CHAIRMAN KOTELCHUCK: Yes. Okay. I think it's just a matter of it hasn't gotten reported back to the committee except now verbally.

So, alright, let's go ahead. There's not an issue it's being -- it's been dealt with.

The second observation?

MR. FARVER: The second observation is that NIOSH should correct the description of the DR methodology as provided in the DR report to reflect the assumptions that were actually employed. And I believe this has to do with the attenuation rate of surface contamination. I will go find it.

MR. SIEBERT: That is correct, Doug. It's the OTIB-70.

MR. FARVER: But that issue's already been resolved, correct?

MR. SIEBERT: Correct. And OTIB-70 is being folded into -- the process of OTIB-70 is being folded into the Site Profile version that we are working on right now. So that will resolve that.

MR. FARVER: And if there is a change in anything we'll go back and look at

this case.

MR. SIEBERT: That is correct. If there's an increase in dose, that is correct.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Alright.

MR. FARVER: Observation 3. NIOSH should consider assigning some fraction on intakes where radionuclides other than uranium for the AWE residual period. And this is an SEC issue, so it goes back to -- we can't really do it.

Observation 4. In general many of the assumptions described in the Site Profile for modeling the rate of decline of internal exposures during the residual period are questionable. There's been some changes from OTIB-70 from Rev 1 to Rev 2 and incorporated into the Site Profile.

CHAIRMAN KOTELCHUCK: We can't see the Observation 4. Could we scroll that? Thank you.

MR. FARVER: Has the Site Profile

been updated Scott, and issued?

MR. SIEBERT: That's the one we've been talking about. It's presently in resolution.

MR. FARVER: It's in process?

MR. SIEBERT: Correct.

MR. FARVER: So the changes in depletion rate will be incorporated into Rev 2 of the Site Profile.

MR. SIEBERT: Yes, that's a better way of saying it. I'm sorry, when I wrote this we have incorporated it into what is going to be Rev 2, so you're right.

MR. FARVER: Okay.

MR. SIEBERT: Thank you.

MR. FARVER: And once again, this is just an observation.

CHAIRMAN KOTELCHUCK: Right.

MEMBER MUNN: So no action then.

MR. FARVER: No action.

CHAIRMAN KOTELCHUCK: Next.

MR. FARVER: Next we jump to Ames

Laboratory.

CHAIRMAN KOTELCHUCK: Ames, so that means we finished Allied?

MR. FARVER: Yes, we've finished with Allied.

CHAIRMAN KOTELCHUCK: Okay. Good.

MR. FARVER: 306. 306.1. Okay the finding is NIOSH failed to apply correction factor of two to the missed neutron dose.

And this case -- it goes back to table 6.1 of the Technical Basis Document and the footnote at the bottom that says for years of NTA film use between ‘54 and ‘79, the adjusted neutron dose is calculated using the correction factor of two. And that's what prompted the finding.

If you go all the way to the very bottom of this matrix on page 74, so I reproduced table 6.1 and the footnotes. And I believe it's footnote D that talks about this. And I don't think there's any, you know,

anyone's going to dispute that footnote exists. It's a matter of: Is it applicable?

MR. SMITH: Yeah, this is Matt Smith with the ORAU team. And I looked at this with the DR. The DR pointed out that throughout the TBD, that throughout the Site Profile, including the table that discusses the MDLs for neutrons, there's no provision put forward to apply a correction factor to missed dose.

And certainly seeing the other claims that we looked at, that's not a common approach. It seems to me that again, some of like many of the other things that we've run into today, it's a matter of a TBD that needs to be clarified on this issue.

There's a flow chart that indicates how the process for dose measured in this, in addition to the table, I don't have the table number off the top of my head. But the specific one that addresses MDLs for neutrons and the factor of two is not discussed in any of those

other areas of the Site Profile.

MR. FARVER: No, it just shows up at the bottom of the table 6-1. I understand. Is there a DR guidance document on this site?

MR. SMITH: That I do not know off the top of my head. And Scott --

MR. SIEBERT: Give me a second, I'm checking on that one.

MR. FARVER: Okay. I'm just trying to look for an easy way to correct this so that it doesn't happen again. It's just a little confusing.

MR. SMITH: Probably the most effective correction would be to page change to that table.

MR. FARVER: Okay. All right, how easy is that to do?

MR. SIEBERT: At this point it's not in the DR guidance. I thought I had ensured that it was. I will ensure that the DR guidance is updated within, you know, the next couple of days. And once the TBD -- when the TBD is next

revised, that will go in there.

MR. FARVER: So there is a DR guidance document for Ames Lab?

MR. SIEBERT: There is a DR guidance document and I'm looking at it right now.

MR. FARVER: Okay.

MR. SIEBERT: And it doesn't discuss this specific issue. So I will ensure that it does.

MR. FARVER: But we've got some clarification to the DR guidance document, correct?

MR. SIEBERT: Yep.

MR. FARVER: That will work.

CHAIRMAN KOTELCHUCK: Okay. Let's go back to 306.

MR. FARVER: Okay. 306.2. NIOSH failed to use the employee sealing records and TBD for sound --

CHAIRMAN KOTELCHUCK: 306.1, right, we just, pardon me, we just closed.

MR. FARVER: We just closed that.

CHAIRMAN KOTELCHUCK: Yeah, okay.

MR. FARVER: We modified the guidance document.

CHAIRMAN KOTELCHUCK: Okay, .2, sorry.

MR. FARVER: 306.2 failed to use DOE records seal, the employees records and TBD for assigning frequency of x-ray exams. Looks like there was an error in the workbook algorithm, I believe.

MR. SIEBERT: Yeah, Doug, you are correct. It's a -- we've looked at the tool itself, and it had a mis-coding that it would skip a line. And it missed -- it would adjust the x-rays to the wrong line, to the wrong year, making a test during that time frame.

I have looked back -- because your additional question is how many other similar workbooks contain the same kind of question -- same kind of error, which was obviously a huge question for me too. We've

looked back at some of the other tools.

This being the Ames tool, is one of the -- how can I say this, it's one of the end-product old method. Yes, SM tool, those are some of the main tools that we used to start creating tools for sites when we're starting to grade it.

Ames was developed from one of those. I can't tell you which. But I've looked back to the originals of those, and it did not have the same issues. So it was introduced when we created or some time in the Ames pool itself.

But we're looking at if that has been addressed and changed -- let me see. Oh, I'm sorry, yes. It was resolved in the 2010 version that next came out of the tool itself.

So the Ames tool was fixed and we looked to see if other tools were affected. And it did appear that there were other -- there appeared to be no other tools affected.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Okay. So -- and how many were affected at Ames?

MR. FARVER: How many cases? Any idea?

MR. SIEBERT: I can't tell you that. If you recall --

CHAIRMAN KOTELCHUCK: I don't know the facility. I'm not --

MEMBER MUNN: It won't be -- it won't be large because there weren't that many claims.

MR. SIEBERT: Ames is a relatively small number of claims -- of sites in the claims. But we are -- this is the bigger issue that we discussed on looking at changes in tools over time.

I know we talked about this with Hanford yesterday. We are going back and working through the changes to the tools over time and ensuring that we look at basically a tool PER over time to ensure those that are impacted on those kind of changes are

reassessed.

CHAIRMAN KOTELCHUCK: Okay. And that this is being worked on and it seems to me we can -- from our end -- we can close it.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Okay, .2 closed.

MR. FARVER: We just note that as another QA concern.

CHAIRMAN KOTELCHUCK: Oh yes.

MR. FARVER: Okay. 306.3, NIOSH applied the uncertainty factor of 1.3 for both the dose value and the distribution for best estimate. It looks like the dose reconstructor manually changed the distribution and the uncertainty.

MR. SIEBERT: Yes. I think [that's] what they were doing, and I'll agree this is a dose reconstruction error. What the dose reconstructor was doing was modifying it to be a best estimate. However they forgot to remove the 1.3 factor before they applied the

30 percent as a normal.

So it's overestimated the way it is, but not intentionally. And I'll just point out, that I know we have discussed this before. But we no longer use a 1.3 factor. We use actual x-rays when we have them, and all of our x-rays are best estimate at this point.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Okay, we can go on, close.

MR. FARVER: 306.4, NIOSH used inhalation [instead of] standard ingestion in the CADW for zinc-65. In other words when they went to input into the CADW they clicked on the wrong tab and used inhalation instead of ingestion.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: So this would be another error of the dose reconstructor, not a workbook error or anything.

CHAIRMAN KOTELCHUCK: That looks

correct. And it's been picked up and noted. I think we can go on.

MR. FARVER: Okay. 306.5. The environmental intakes provided in Table 4.7 were not addressed. The environmental intakes in the Site Profile document were calculated using overestimating assumptions. The DR is advised to apply them as a constant because of this.

As a best estimate case, these overestimating doses were not applied. NIOSH agrees this issue should have been discussed in the report. Additionally, NIOSH has clarified that these intakes are to be assigned in best estimate claims until further review of the TBD determines if more appropriate values should be used in best estimate situations.

And that has been included in the DR guidance document. But anyway we just wanted to note that we didn't find anything in the technical basis directing the dose reconstructor not to include those

environmental intakes.

MR. SIEBERT: Yes, this is Scott. We agree that that is not well written in the TBD. And it leaves an open question for the DR that in this case they interpreted it incorrectly.

Even though what the DR was thinking in this process, because I did talk to them, is the values in the TBD are clearly stated to be overestimates and we do not assign overestimates in best estimate cases as a general rule.

However in a case like this when they are environmental and it's all we have, we actually should be assigning these because it's not that large of an overestimate based on the fact that it's environmental.

So we have clarified that with dose reconstructors. We have clarified that as I said in the Ames DR document. And that's the document that I was just looking [at] to see if the previous issue was in there. And this

issue is in there; I verified that.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Alright. Let's continue.

MR. FARVER: 307. There's just one observation that has to do with the medical doses. Okay, it would have been claimant-favorable and consistent with the few available medical records to use the frequency in Table 3.1 and assign x-ray doses on a semi-annual frequency for each year.

It looks like they were assigned based on actual records.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: And in current guidance, she wasn’t assign any dose on some x-rays because they were done off site.

CHAIRMAN KOTELCHUCK: Okay. Maybe we can take one more case.

MR. FARVER: One more case. 243. INEL, I think. There it is.

CHAIRMAN KOTELCHUCK: Yes, it is.

MR. FARVER: Okay. I'm slowing down a little bit, I'm just not as feisty in the afternoon.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay. The CATI report. Finding 243.1 The DR report does not address CATI information regarding a radiological descriptions. CATI employee reports that he was restricted from routine job duties due to high radiation doses.

Testing processing samples when he was in hot cell areas occurred a couple of dozen times. And we think it would have been nice to put something in the report, or maybe compare the employee's dosimeter to the pocket ion chamber readings.

MR. SIEBERT: Yes, and Doug we agree that putting a comment in the report would have been a good idea for this one.

MR. FARVER: Do you ever go to the extent of checking for something like this, comparing the dosimeters to the PIC readings?

MR. SIEBERT: This is INEL. Honestly that's a depth that I don't know specifically at INEL whether that's the case. I don't believe we generally do because the TLD or the dosimeter is the dose of record in most -- well not in most cases. The PIC is just used for control purposes.

But I can't state specifically for INEL, but I believe it's generally not going to be the case. And Matt Smith, by all means if you have something to add on that, please bail me out.

MR. SMITH: Sure, we're not, because of the unreliability of the PICs, we wouldn't make that comparison. But when a comparison is made, we would do that against the dose limits at the time.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Alright.

MR. FARVER: I'm not saying you should do it, I'm just thinking that -- I believe in this case the PIC data was available.

It was in the records.

And I'm thinking that if I've got it then I've got the dosimeter reading there, I might take a look at them around the same time period just to see if there's anything strange.

CHAIRMAN KOTELCHUCK: Was this an observation? I don't see it on the screen. Or was this a finding?

MR. FARVER: A finding.

CHAIRMAN KOTELCHUCK: This is a finding.

MR. FARVER: Basically the finding was that they did not address --

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: The CATI information.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: I'm just saying that I would -- you know if it were me -- I would probably look at it and since it was available, I would look at it. I'm not saying I would even write anything up on it.

CHAIRMAN KOTELCHUCK: Yes. Okay.

I think this is closable. Is there any disagreement?

Let's go down, were there some observations of those?

And I'm keeping an eye on the time, folks. This has to be finished by 4:30 at the latest. So --

MR. FARVER: Okay. 243, observation 1. The dose reconstructor made several choices based on the monitoring record that were not justified in this case, assuming that the intake would only occur during periods when the employee was monitored by bioassay.

It cannot necessarily be verified in the record that the recorded is complete or consistent with job assignments and cannot demonstrate that adequate claimant-favorable constants have been applied.

CHAIRMAN KOTELCHUCK: Okay. And NIOSH appropriately comments. And if the SC&A accepts, you should go on to the next.

MR. FARVER: Probably this is where

NIOSH says that PER 17 was not applicable to this claim.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: I don't know enough about the PERs to make a statement on that. But I mean it is just an observation. We're just kind of pointing that out.

CHAIRMAN KOTELCHUCK: Yes. Alright.

MR. FARVER: And that will wrap up that case.

CHAIRMAN KOTELCHUCK: Good. Let's see. We have another one, 290. Let me ask folks right now, can we do another case? We can start another case now.

We do eventually have to think about time for another meeting. And I don't want to -- I didn't want to go up against our time limit and not have that resolved.

MR. SIEBERT: Dr. Kotelchuck, this is Scott. I apologize for butting in, but another thing that would be very helpful for I

know NIOSH is, since we're getting into -- we're getting finished with the 10 to 13 sets, if we could have a brief discussion as to how we're going to be doing the 14 through 18.

Because if we make some decisions or at least have some guidance, then I could get started on getting some responses together.

CHAIRMAN KOTELCHUCK: That sounds like a good idea. So why don't we do the following: Let's talk about when our next meeting should be and then go on to that.

I'm having trouble with my machine. Hold it a second. It's been acting up this afternoon.

MEMBER MUNN: I can hardly hear you, David.

CHAIRMAN KOTELCHUCK: Okay, I'll speak a little louder. Thank you.

MEMBER MUNN: I don't know if it's my phone or whether -- you seem to be fading in and out.

CHAIRMAN KOTELCHUCK: Oh, okay.

Well --

MR. KATZ: So this is Ted.

CHAIRMAN KOTELCHUCK: Oh, Ted, what do you think of our time line?

MR. KATZ: Right. So we need time to publish a Federal Register notice and all that. And it seems to me that we want to meet as soon as we can, given that we have more to get done to be ready to report to the Secretary.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: So, you know, under those premises, I think the earliest we could meet given the Federal Register requirement, would be, let's see --

CHAIRMAN KOTELCHUCK: In May. In May.

MR. KATZ: Yes, it would definitely be in May. Beginning -- I think we could do it any time beginning about the 7th. May 7th forward, we could think about.

CHAIRMAN KOTELCHUCK: Well, let me ask the NIOSH folks if they believe they can

finish off some of the things -- some of the items that are outstanding from yesterday and today, if we are [meeting] by mid-May.

MEMBER MUNN: That's really going to be key if NIOSH and our contractor can't devote a significant amount of time between now and then.

MR. KATZ: Well, there's very few items that are actually outstanding as I recall them at least.

CHAIRMAN KOTELCHUCK: Right. How much --

MR. KATZ: I understand there's a lot ahead of us still that's been prepared for this meeting --

CHAIRMAN KOTELCHUCK: Right. Roughly how many -- alright, well I certainly know the ones behind us. There are about a half a dozen to a dozen.

But what about forward? I'm still on the meeting screen, so I can't scroll through. Roughly how many cases do we have ahead of us?

MR. KATZ: Doug?

MR. FARVER: I don't have them counted up, but we're on page 27 of 74.

MR. KATZ: Okay, a lot.

CHAIRMAN KOTELCHUCK: Okay, a lot. And will those have been completed by mid-May?

MR. FARVER: Well, we already have -- each of us have provided responses.

MR. KATZ: Yes, those are all ready for the Subcommittee's discussion.

CHAIRMAN KOTELCHUCK: Okay then, let's move it as quickly as we can then. Which is to say as early in May as we can.

MR. KATZ: Right. So I think that's what I was saying. So I think May 7 forward is fine. I can get a Federal Register notice out in time to cover.

CHAIRMAN KOTELCHUCK: Okay. We will have met in Augusta in late April, last week in April.

MR. KATZ: Right. April 29th we're in Augusta. So this is -- we're talking

about the following week basically.

CHAIRMAN KOTELCHUCK: I would suggest that we not do it that week, but start looking at something like Monday the 12th.

MR. KATZ: Okay.

CHAIRMAN KOTELCHUCK: Give people a little, not only rest, but time to get ready, prepare for the next round.

MR. KATZ: Yes.

MR. FARVER: This is Doug. I will be unavailable that week. But if someone wants to fill in, they're welcome to.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: But still I never get any issue of covering if Doug's not available.

MEMBER MUNN: And I'll be tied up until the 15th that week. After that I'm free the entire month.

MR. KATZ: And Wanda, are you saying tied up including the 15th, or up to?

MEMBER MUNN: The 15th, yes. Any time after the 15th.

MR. KATZ: Okay, well that only leaves -- that Friday doesn't work. So that doesn't work for that week then.

CHAIRMAN KOTELCHUCK: That's not very good for us. How about, I will come back to either May 8th, Thursday May 8th?

MR. KATZ: Yes, how about that?

MEMBER MUNN: I'm out the 8th and 9th.

MEMBER CLAWSON: That isn't good for me.

CHAIRMAN KOTELCHUCK: And that's no good for you, okay.

MR. KATZ: How about the 7th?

MR. CALHOUN: I'm out the 7th. I'm out the 6th and 7th.

MR. KATZ: We're on to the week of the 19th.

CHAIRMAN KOTELCHUCK: We are and so we're going to be later, and I thought some folks said they might be available late in the week of the 12th, like the 15th or 16th,

Thursday or Friday.

MR. KATZ: Well, the 16th doesn't work for me. So that week is out. It's the week of the 19th.

CHAIRMAN KOTELCHUCK: Okay. There it is.

MR. KATZ: So how are people during that week?

MEMBER MUNN: I'm open.

MR. CALHOUN: This is Grady, I'm open.

CHAIRMAN KOTELCHUCK: I'm open.

MR. FARVER: I suggest Tuesday the 20th.

CHAIRMAN KOTELCHUCK: I am tied up that day. I have an obligation. How about Wednesday?

MR. FARVER: That would work also.

MR. KATZ: Okay, and Mark, are you on the line?

MEMBER GRIFFON: Yes, yes.

MR. KATZ: How about the 21st for

you? Wednesday, the 21st of May?

MEMBER GRIFFON: Wednesday, the 21st of May should work, yes.

MR. KATZ: Okay. And Brad?

MEMBER CLAWSON: I'm looking right now. The way it looks, it should be good for me.

MR. KATZ: Okay.

CHAIRMAN KOTELCHUCK: Good. I think that's -- and should we start -- we'll start at 9:30?

MR. KATZ: Right. So let's put that in. I'm going to have to shoot out a note to David and John Poston.

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: Because otherwise we're relying on all of you to be available.

CHAIRMAN KOTELCHUCK: Right. But it will only be one day this time, folks.

MR. KATZ: No, absolutely. Absolutely.

CHAIRMAN KOTELCHUCK: You can

hopefully schedule around it.

MR. KATZ: And I think 10:30 seems to me a pretty good starting time because it gets pretty tiring.

CHAIRMAN KOTELCHUCK: Oh, I'm sorry, I said 9:30 and I meant 10:30.

MR. KATZ: Yes.

CHAIRMAN KOTELCHUCK: Yes.

MEMBER MUNN: I was going to make a rude comment about that, too.

CHAIRMAN KOTELCHUCK: Alright, okay. Sorry.

MR. KATZ: Okay, so we're on for 10:30 on the 21st unless it's bad for both Poston and Richardson.

CHAIRMAN KOTELCHUCK: Right. What's our fallback? Would a fallback for Thursday work?

MR. KATZ: And that's fine with me, too.

MEMBER MUNN: I'm here.

CHAIRMAN KOTELCHUCK: Okay, so

it's Wednesday the 21st with Thursday as a backup.

MR. KATZ: Is that good for you too, Mark?

MEMBER GRIFFON: Thursday --

MR. KATZ: The 22nd.

MEMBER GRIFFON: Perhaps may not be as good. I may be going out of the country. So the --

MR. KATZ: Okay, we'll --

CHAIRMAN KOTELCHUCK: It will be a backup. It will be a backup, anyway.

MEMBER GRIFFON: I don't have my full itinerary yet, but close.

CHAIRMAN KOTELCHUCK: Sure. Sure. Okay, so this is very good. Now let's go back with the 15 minutes that we have left, and let's talk about the review of sets 14 through 18.

MR. KATZ: Yes.

MR. FARVER: Before we do that, I want to make note that there is still another

set of findings out there from AWE sites that we haven't looked at yet.

CHAIRMAN KOTELCHUCK: That are not part of 10 to 13?

MR. FARVER: They are part of 10 to 13.

MR. KATZ: Oh, so why haven't --

CHAIRMAN KOTELCHUCK: I wasn't aware of them.

MR. FARVER: Yes, this is -- these other site reports that we looked at --

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: It's not all other sites. It's not all the remaining sites.

MR. KATZ: Okay, so are you saying for those, Doug, that you don't have NIOSH responses?

MR. FARVER: Correct.

MR. KATZ: Okay, so those need to be our first priority.

CHAIRMAN KOTELCHUCK: How many are we talking about roughly?

MR. FARVER: Grady, do you know? I don't think it's very many.

MR. CALHOUN: I don't. I'm looking at -- trying to look at them right now. You've got the remaining sites.

MR. SIEBERT: I believe it's 11 claims that we --

CHAIRMAN KOTELCHUCK: Okay, look, we can -- 11 we can -- so you folks should make sure that you have comments back and forth for those 11 or so, those dozen or so.

MR. FARVER: Right.

CHAIRMAN KOTELCHUCK: And then we will add those on for May 21st. Scott and Grady, how might we help in terms of what you need for review of sets 14 through 18?

MR. KATZ: Scott has sent out, I think it was from Scott or Beth, and I circulated it to all of you, suggestions for how to carve them up. So that we handle them similarly to how we handled 10 through 13, which I think has worked pretty well.

CHAIRMAN KOTELCHUCK: Right. Oh, the one where we break them up by site.

MR. KATZ: Yes.

CHAIRMAN KOTELCHUCK: We go over a particular site.

MR. KATZ: Exactly. All of a part. And Beth has sent out, I thought it was very helpful, a breakdown according to those lines.

CHAIRMAN KOTELCHUCK: Did other Subcommittee Members, do you recall seeing that? It seemed like a sensible approach.

MEMBER MUNN: Yes, that's fine. I would request, however, that when we send out those matrices, I would like to request that folks use my non-CDC address to send those out because those of us that have problems accessing Citrix sometimes can't get to our CDC email.

So it would be very helpful if you'd use my civilian email address.

CHAIRMAN KOTELCHUCK: But can we do that in terms of the security of the

information.

MEMBER MUNN: It seems to me, yes. Not most, not a great deal of the other material, but the matrices I think are fine.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: But the problem is, this matrix that they sent out, the email I thought I forwarded to you actually, Wanda, to your personal [email], the matrix included the Excel sheet, includes stuff that we cannot send to non-government sites.

MEMBER MUNN: Okay.

MR. KATZ: So that's the problem. But for those that don't have it in front of you, I have it in front of me now. What it has is, the breakdown is: Oak Ridge GDP 21 claims, Hanford/SRS -- this is in order of frequency -- Hanford/SRS 21 claims. Fernald, RFP, Mound and INL and NTS make up 21 claims. And then DCAS sites 17 claims. All others: 26 claims.

So that's the breakout. I think you know, if you guys haven't had time to give

it consideration, I mean [it's] an easy way just to get this going so that the folks at NIOSH can spend this time productively.

CHAIRMAN KOTELCHUCK: Well, I certainly remember seeing it, and it seemed perfectly sensible to me, also.

MR. KATZ: Yes, I was just going to say, I mean they could just start at the top of the list with Oak Ridge, which is --

CHAIRMAN KOTELCHUCK: Yes.

MR. STIVER: It's up on the screen right now, the diagram.

MR. KATZ: Okay, thank you, John.

CHAIRMAN KOTELCHUCK: No reason that -- there's no particular reason that any order is in order. So whatever order it is on the screen, and that Kathy sent to us, that sounds fine.

We did talk earlier today about whether when people were reviewing the sets, how we were going to handle the categorization of errors or problems. You folks, SC&A and

NIOSH, do not need that. We can still talk about how to get started.

But we probably do want to revisit that. Or talk about it sometime early on when we get to 14. Right?

MR. KATZ: Yes.

MR. FARVER: This is Doug. And I just wanted to point out, I have put out the matrices for the 14th through 18th set on the O: drive.

CHAIRMAN KOTELCHUCK: Good.

MR. FARVER: It's going to be our Subcommittee, I think it's under matrices. I also put there an Excel spreadsheet, which has all the findings from all the 14 through 18 cases. So it's easy to sort.

But I do not have the A to F codes put in there, in those findings.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: And that's what we were trying to hash out earlier. Do you want those codes, or would you like some kind of

different code? Because we already have the finding identifier which tells you whether it was an internal dose issue.

But I just want to point out, I do not have those codes added to the findings. Now we can always add those even as we go.

CHAIRMAN KOTELCHUCK: I think we can add them as we go. And in fact it might be better if we do so.

MR. FARVER: It probably is.

CHAIRMAN KOTELCHUCK: And the other thing is, I assume that there's enough space that we might put more than one designation of something like A through F. Because some of them -- we're talking about some of the errors involve both.

MR. FARVER: Right, I mean this comes back --

MR. STIVER: This is John. I thought we were going to -- it was my recollection from this morning that we would go ahead and leave the codes as is. And then you

know, once we discuss them, if we determine that it should be in a different category, then we can make that change, especially when we have a set of completely reviewed findings and we have a pretty solid feel for a category that it would go into.

CHAIRMAN KOTELCHUCK: Fine, which is to say there's no problem expanding that if we want to put in two letters, or --

MR. STIVER: Right, right.

CHAIRMAN KOTELCHUCK: Okay, fine. I just want to make sure that's fine.

So, Scott, Grady, is that sufficient?

MR. SIEBERT: Yes, that's great. I do have one clarification, I believe I understand something, I just want to be very clear.

CHAIRMAN KOTELCHUCK: Okay.

MR. SIEBERT: We never got, that I'm aware of, any findings from a 17th set. It goes 14, 15, 16, 18. I believe that's because

the 17th set was the blind set.

MR. KATZ: That's correct.

MR. SIEBERT: Okay. I just wanted to verify that to make sure. Because all the numbers that I've put together are 14 through 18 without any 17th set.

MR. KATZ: Right, yes, that's correct. The 17th set is the blinds.

MR. SIEBERT: Okay.

CHAIRMAN KOTELCHUCK: But there's also a 19 that's blind, right? I thought we once went over a 19?

MR. STIVER: The 19 would be the new set that we're going to --

MR. KATZ: The 19th is the set that I just assigned, I think. Isn't it?

MR. STIVER: That's true.

CHAIRMAN KOTELCHUCK: Alright. Oh, excuse me, of course.

MR. KATZ: So SC&A's just starting work on those.

CHAIRMAN KOTELCHUCK: Yes, good,

good. Okay, folks, we have done yeoman's work over these last two days. I think we are ready to call it quits for the day. We must be done by 4:30 and I don't believe we have time to give adequate consideration to another case.

So I would like to call this meeting to a close.

(Whereupon, the above-entitled matter went off the record at 4:23 p.m.)