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

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WEDNESDAY
NOVEMBER 20, 2013

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The Subcommittee convened via teleconference, at 10:00 a.m., David Kotelchuck, Chairman, presiding.

PRESENT:

DAVID KOTELCHUCK, Chairman
BRADLEY P. CLAWSON, Member
MARK GRIFFON, Member
WANDA I. MUNN, Member
JOHN W. POSTON, SR., Member

ALSO PRESENT:

TED KATZ, Designated Federal Official
NANCY ADAMS, NIOSH contractor
BOB BARTON, SC&A
KATHY BEHLING, SC&A
RON BUCHANAN, SC&A
GRADY CALHOUN, DCAS
DOUG FARVER, SC&A
DeKEELY HARTSFIELD, HHS
BETH ROLFES, DCAS
SCOTT SIEBERT, ORAU Team
MATT SMITH, ORAU Team
JOHN STIVER, SC&A

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

C-O-N-T-E-N-T-S (CONTINUED)

C-O-N-T-E-N-T-S (CONTINUED)

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

10:05 a.m.

MR. KATZ: Let me just note, because this is a Subcommittee meeting, I have to address issues of conflict. So I will just address those for you all. That way, you can just, then, respond to roll call without having to remember what your issues are.

Dr. Poston will be recused from discussions that we will have today addressing ORNL and Y-12 because he has conflicts there.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: Make a note of that.

And should we talk about Hanford, then Wanda will be recused from that discussion.

And otherwise, there are no other conflicts to note for today's agenda, other than Dr. Poston also has a son who does dose

reconstruction. Should it be a claim that his son was involved in, of course, he would be recused from that, too.

So then, let's then run roll call.

(Roll call.)

So the agenda is posted on the NIOSH website. You can get to it under the Board section for meetings, today's date.

And, oh, this is just a couple of things about schedule before we get going.

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: We have several members who have issues, schedule issues. So we are planning to run through straight to 1:30 p.m., and for that period we should have no issues with quorum. We are going to break from 1:30 --

CHAIRMAN KOTELCHUCK: To 2:40.

MR. KATZ: -- to 2:40 or 3:00, depending on Mark's availability, because I think John Poston can't be back until 3:00

or Wanda can't be back until 3:00 Eastern Time. Is that correct, Wanda?

MEMBER MUNN: That's correct.

MR. KATZ: That's correct. Okay.

So, just before we break, we will talk about when we are going to resume and how we will handle that, because then we can get an update from Mark and others as to what they could do about returning.

And then, I think we should proceed without further ado, so we can get as far as we can today.

CHAIRMAN KOTELCHUCK: Right. May I suggest, also, that we should have a break at some point, usually in mid-morning? May I suggest that we take a 10- or 15-minute break at noon and, then, get back on? And then, we will take break for lunch at 1:30. That will give people a chance for a comfort break, et cetera.

MR. KATZ: Good. Right. Okay. Just be aware that it may be that we can't

reconvene after the 1:30 break.

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: That's my concern, but that's fine.

CHAIRMAN KOTELCHUCK: Okay. I am trying to get onto our Live Meeting, and they ask me to install Live Meeting, which is strange since I have used it before. Nevertheless, I did. But I am not up with Live Meeting for our run right now.

If I may say, just starting Microsoft Live Meeting client, starting time 10:00 a.m., you can safely close this browser. If I close this browser, I am off of Live Meeting. I went to the connection that you gave.

Are other people having any problem?

MEMBER MUNN: Yes, I certainly am.

CHAIRMAN KOTELCHUCK: Okay, because I am --

MEMBER MUNN: Just the fact that I have the message to begin with, yes.

MR. SIEBERT: This is Scott. I just want to tell you what I have found. I always use the web version, the last link in there, rather than installing. That tends to work much better for me.

MEMBER MUNN: I have tried them both, Scott.

MR. SIEBERT: Okay.

CHAIRMAN KOTELCHUCK: You try again, Scott? Excuse me.

MR. SIEBERT: I'm sorry, I use the one that is the last link in there that is the web-based version that you don't have to install the software.

CHAIRMAN KOTELCHUCK: Ah, okay.

MR. SIEBERT: That tends to work for me.

MEMBER MUNN: I have tried that. It just keeps me sending me back to Java, and it won't install for me. So, I have no

idea.

CHAIRMAN KOTELCHUCK: I am not sure.

MEMBER CLAWSON: Well, this makes me feel good because I'm on there and I can see the agenda.

(Laughter.)

CHAIRMAN KOTELCHUCK: Good, good. Okay.

MEMBER POSTON: I can see the agenda. I just can't go through it.

CHAIRMAN KOTELCHUCK: Sign in. Okay, good.

MR. STIVER: This is Stiver. I am sharing right now. So I am the one that is controlling access. But, as you can see, I can move it around.

(Off-the-record comments regarding trying to sign into Live Meeting.)

CHAIRMAN KOTELCHUCK: Ted, can you continue on my behalf, or Wanda, as the senior person? Or can you read it?

MR. KATZ: Yes. The agenda, you mean?

CHAIRMAN KOTELCHUCK: Yes. I simply have your email about join the meeting.

MR. KATZ: Okay. I mean, you also have, Dave, you have the agenda and everything sent to you by email.

CHAIRMAN KOTELCHUCK: Absolutely. I have it in front of me. I am perfectly glad to do it verbally; I just can't see anything on the screen.

MR. KATZ: Yes, that's all right, but we will be using the same documents you are looking at there.

CHAIRMAN KOTELCHUCK: Okay. Fine. Then, let's begin.

And the first item is the report on the NIOSH blind reviews.

MR. CALHOUN: Okay. This is Grady.

I actually have a little

something this time.

CHAIRMAN KOTELCHUCK: Great.

MR. CALHOUN: I don't have the write-up completed, but we have completed nine new blind DRs in-house since the last time I reported that we completed some. All of those resulted in the same compensation decision as the ORAU original dose reconstruction did.

And to give you an idea of the overall status of our program, it is that we have chosen 123 dose reconstructions for review. So you can see we have got a lot in the pipe. We have completed 41 of the 123. So, that leaves 82 that are still in various stages of completion. We have had zero of our blind DRs resulting in an overturned compensation decision.

Some of the improvements that we are still seeing in these that need to be done, or need to be made, I think our guys need to do a little bit better job of detail

as far as documenting how they did their dose reconstructions, the blind dose reconstructions, just so we can go back and make our review a little bit better.

And we still have not gotten to the point where we are using the tools, the ORAU tools. At least we are not using them consistently or well to do our blinds. So, we are really just chugging through these by hand and through the Technical Basis Document. So that is where we stand with those.

I will get the report out to the Committee probably sometime in the next, I would say, couple of weeks.

CHAIRMAN KOTELCHUCK: Okay. That is very good. Nine, you have nine new reviews with the decision --

MR. CALHOUN: A total of nine, yes.

CHAIRMAN KOTELCHUCK: Right. Very good.

Any comments?

MEMBER CLAWSON: Grady, you made a comment -- this is Brad -- that you are not able to do it with the tools?

MR. CALHOUN: We can do it with the tools. We haven't got the training up for our guys yet. There are some people that are using the tools and some people that are not. And I believe that there is also a limitation on connectivity as far as how many people can be hooked up to those at once.

MEMBER CLAWSON: Okay.

MR. CALHOUN: I know that the SC&A guys were using those tools. At least I believe that we did get them access to the tools to do their blinds. I'm not sure how it is working for them.

But it just makes it slower. We're still coming up with the right compensation decision.

MEMBER CLAWSON: Right. Well,

Grady, I wasn't worried about the compensation so much as wanting to make sure that the tools were working for people. Because, if you remember right, we had a bad tool that was in there, and it wasn't affecting everybody. It was just like an earlier version or something like that. Because part of this check was to make sure that the tools themselves were working properly, was my only concern.

But if we have got some of them that are working, okay, I just want to make sure that our tools are working properly, the way that they should, too. That was one of my concerns.

MR. CALHOUN: I believe Doug may be or John may be using these tools a little bit more frequently even than we are. So I don't know if they want to chime in on their experience with them.

MR. FARVER: This is Doug.

I have used the tools, and,

typically, what I will do is I get everything arranged ahead of time. And then, I will log in, run whatever tools I need, save the outputs, and just get off there. I spend as little time logged-in as possible, just because there are only two connections.

MEMBER CLAWSON: Okay. Well, so Doug, what you are telling me, then, is that you are able to use the tools. The checks that you are doing on it, they are working properly for you?

MR. FARVER: I can't say that completely. I can say that we have been using the tools.

MEMBER CLAWSON: Okay.

MR. FARVER: And I know John Mauro has been doing his work by hand. And then, Kathy is going to put together the reports. And then, we will kind of figure out what worked and what didn't work.

MEMBER CLAWSON: Okay. That's

what I was wanting to make sure, is that we were having a check-and-balance on these tools, and if we were seeing problems and stuff like that. I didn't mean to put you in a peculiar situation. I just wanted to make sure that we were looking at the tools, if they were working properly. If they weren't, you know, and the reports and everything else, that will come out and stuff. I just wanted to make sure we were checking that. That's all I needed to know.

MR. FARVER: Alright.

MEMBER CLAWSON: I appreciate that, Doug, and I'm glad to hear that we are doing good on these.

DR. BUCHANAN: This is Ron Buchanan, SC&A.

Doug, I do want to put in the fact that the three blind cases I worked using the tools were very difficult, and it was hard to find the edition that would work. The trouble is there are different

editions out there, and sometimes the data we get from NIOSH that has the doses already put in, I go back and check those in the raw data. But the doses will not load into some of the site's workbook because it is the wrong edition, and some of the CADs don't work on some of the other CADs.

And it seems to be an edition problem because I have to go through and try to find an old case I have worked on that has an edition that matches that. So there are some edition problems on these workbooks and OTIB-54.

MEMBER CLAWSON: Okay.

MR. FARVER: This is Doug again.

And I believe that the versions of the work have changed. So has sometimes the format of the inputs. And I think we are running into some of the files that we have are older formats, and we are trying to load them into newer versions, and we get some errors.

Scott, I don't know if you have some input, but that's my guess of what is going on.

MEMBER CLAWSON: Doug, this is Brad again. Sorry, I didn't mean to jump in on you.

My issue was that we are finding these problems, because we are wanting this to be looking just like any other kind of dose reconstructors looking at them and running into the same problems that he would. You know, there will be errors on this, but I'm sure that this will come out when SC&A produces their report and stuff. I just wanted to make sure we were running all the tools that the dose reconstructors were running, too, so we could see the problems that they are having.

MR. FARVER: We are trying our best.

MEMBER CLAWSON: Okay. I appreciate it. Thank you.

MR. SIEBERT: And this is Scott.

Just addressing what Doug added, that may be the case, but I honestly can't really help that much because, since that is hosted on DCAS's site, it is an IT issue that I'm not really involved in. But, you know, I can make sure that people over here are aware of it.

MR. FARVER: Okay. I mean, that's my guess because I think format has changed. Because, like Ron said, if we find an older version, it will load into it, but it sometimes won't load into a newer version.

MR. SIEBERT: Right. The versions themselves from a loading point of view, that somewhat surprises me. We do have very new versions that use the mega files and upload things. But, yes, the uploading in different versions, that surprises me because that portion hasn't changed a whole heck of a lot.

So, I guess, Grady, you've got this down to look at it on your site, too? I will make sure our guys are aware of it.

MR. CALHOUN: Yes. Yes, I have got it. I have got it written down that some of the preloaded dose files aren't loading well, and it may be a version issue.

MR. SIEBERT: Right. And what might be helpful is -- it was Ron that was saying that he found this, right?

DR. BUCHANAN: Yes.

MR. SIEBERT: Okay. If you could give us an example of the versions that you tried, so that we at least have a starting point to work from, that would be very helpful.

DR. BUCHANAN: Okay. I will go back and see if I can find something.

MR. KATZ: This is Ted.

Just to make sure that Brad understands this discussion, I mean this version issue, it is not a reflection of a

problem with doing dose reconstruction. It is a reflection of a problem there may be with doing blind reviews in dose reconstructions because you are going back to older dose reconstructions and trying to use older tools. So, really, it is not going to come out with issues necessarily that are relevant for whether the dose reconstructions were done right or not, at all.

MEMBER CLAWSON: I understand somewhat there, Ted. But, if you remember right, going through some of these dose reconstructions, we come to find out that there were improper workbooks used, improper tools, newer versions that were out. And I just wanted to make sure that, as we are going through this, that we were using the same tools that the dose reconstructor would use, to make sure that they are working properly. Because so many times we hear, "Well, yes, but we have come to find out

that this is an older version. We've got a newer version out." And I thought this was part of what we were doing some of these blind reviews to do, is to make sure that some of these issues were being taken care of.

And maybe I'm wrong. I thought these were to make sure that we were doing this basically the same as what a dose reconstructor would do, to make sure that all the tools and equipment were working properly.

MR. KATZ: Right. Right. All I'm trying to explain is that the issues they are having right now, the problems they are having with version control, again, it is not because someone back then used the wrong version. It is because they are currently trying to use a version that is an old version, or what have you, and trying to use it with updated software, or what have you. And they are, therefore, having

problems making it work.

MEMBER CLAWSON: Right. And, you know, I'm quite happy to hear that some of this is -- not happy, I guess I should say. I am pleased to see this because we are now seeing what possibly some of the dose reconstructors, what problems they have. And so, how they would work through it, we will better understand what they are dealing with.

So, I think, all in all, it is going very well. I just had that question when I heard that they weren't able to use the systems and they were doing it by hand. I just wanted to make sure that we got the best picture, just as one of their dose reconstructors would be finding, because I imagine they have the same problems sometimes. And maybe they have learned, using this as much, to be able to get through these issues and how they get through them. And it better helps us

understand when we review these.

CHAIRMAN KOTELCHUCK: Okay. Right. Are we ready to go into case reviews?

MEMBER CLAWSON: Sure.

CHAIRMAN KOTELCHUCK: By the way, I'm online; I'm fine.

Let's go to the 9th set, the last one that we have to deal with, which is, let's see -- whoops, did I lose it? -- is 185.6, right?

MR. FARVER: I believe it is 185.7, isn't it?

CHAIRMAN KOTELCHUCK: Oh, it may be. Yes, it may be. There we go. It ran by my screen quickly.

185.7, let's go ahead, please.

MR. FARVER: Okay. This is Doug.

This has to do with Huntington Pilot Plant. I believe it is the recycled uranium nuclides or additional nuclides other than uranium.

And this was addressed in an SC&A report that Steve Marschke wrote, along with we had some other findings and observations. And specifically, I know what we talked about with this finding was that NIOSH would go back and look at the SC&A report, because this specific finding was the same as Finding 1 of that report.

And we did put together a matrix for that report listing findings and observations. And, John Stiver, I am not sure who that all went out to.

MR. STIVER: It was sent out to the Dose Reconstruction Subcommittee. So everybody on this call should have it.

Now, that said, the point being was that matrix would be to have NIOSH go through and provide some formal responses. So I don't know if it is something that we really want to get into right now and can go over to that matrix or --

MR. FARVER: Well, they probably

haven't had a chance to look at it and fill it in. And so, my suggestion would be let's just keep this one open until NIOSH has a chance to go back and look at the report and look at the other findings. When we start looking at those findings, maybe we will just close out this one also. So, this will remind us.

MR. CALHOUN: This is Grady.

I agree with that. We did, just for this specific one, though, I wanted to tell you that we agree that we do need to add something in there. At least we need to look at how we are dealing with americium and thorium. And it looks right now like we need to modify that to include those.

So I think we do need to respond to the overall matrix for the TBD review, but for this finding, I will tell you that we are not done and we do believe at this point that we need to revise the TBD.

CHAIRMAN KOTELCHUCK: Alright.

I'm disappointed that we can't get out of 9, but if we need to come back to it, we need to come back.

Can we definitively say that we will finish this next time? This has been hanging for several meetings.

MR. CALHOUN: I can definitively tell you that we will get the TBD revised before that. I can't definitively tell you that they are going to agree with our changes, but I think so.

CHAIRMAN KOTELCHUCK: Okay. Would folks put some particular focus on this, so that the next meeting we really truly will bring this to a conclusion and finish Set 9? Okay?

MR. FARVER: Well, this is Doug.

This finding is linked to Finding 1 of the SC&A report. So if you go back and look at Finding 1 --

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: -- and if you come

up with a response for that, and we can close that out, then this one goes away.

CHAIRMAN KOTELCHUCK: Okay. Well, there needs to be a formal response from NIOSH, and we're going to get it. All I'm saying is that I urgently hope that at the next meeting we will be able to bring this to a conclusion.

Let's go on. Now we are going on to Portsmouth. We went over Portsmouth, Sets 10 through 13 last time, but we have a few hanging from that meeting. Okay.

MR. FARVER: Hang on just one minute.

CHAIRMAN KOTELCHUCK: Sure.

MR. FARVER: Okay. This is Doug.

We have one open, I believe, or two. One was 273.2.

CHAIRMAN KOTELCHUCK: That's right. Certainly, that one is open.

MR. STIVER: Can you see that on the screen?

CHAIRMAN KOTELCHUCK: Yes.

MR. STIVER: Okay. Good.

MR. FARVER: That's the only open issue.

CHAIRMAN KOTELCHUCK: Okay. I thought there were two, but I don't see. I have notes on 272.1 and 273.2, well, two quality assurances there. But we finished 272.1, by the way, Doug?

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Okay. 273.2, there it is. Let's go ahead.

MR. FARVER: Okay. This has to do with the correction factor or dosimeter correction factor. It is applied to missed photon dose.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. FARVER: This is about the only place I recall that we see applying a dosimeter correction factor to missed photon dose. And so, the action was "NIOSH will examine to determine if this correction

factor should or should not be applied."

CHAIRMAN KOTELCHUCK: Right, and we had a long discussion about this last time, did we not? On one hand, one position was that it is peculiar to this plant, but that it is claimant-favorable. So we should simply settle things.

Wanda, I believe that was your position, if I am summarizing it correctly.

MEMBER MUNN: Yes.

CHAIRMAN KOTELCHUCK: And the other was Dave Richardson said, "No, we have to be consistent and we should not have special correction factors for one plant." And that's where we left it.

So, NIOSH, does NIOSH have some thinking, new thinking on this?

MR. CALHOUN: Yes. Well, this is Grady.

First of all, the correction factors for different plants are typically different for each plant, just as a note

there.

MEMBER MUNN: With good reason.

MR. CALHOUN: Or they certainly can be.

This one is kind of an outlier here in that we only apply that correction factor at this site. So it is claimant-favorable. I hate to cop out, but it seems like this isn't really a specific dose reconstruction issue. It is more of a TBD issue.

I believe that all of the GDP TBDs -- that would be the Gaseous Diffusion Plant Technical Basis Documents -- are in various states of review and revision right now. I am actually trying to check this as we are speaking to find out when that one is scheduled to be revised.

But, because I don't believe that we are limiting anybody's dose by this practice, I think that I would kind of like to have this taken care of through the TBD

revision rather than track an individual dose reconstruction because it affects every case at Portsmouth.

MEMBER MUNN: That sounds reasonable, then, to take care of it in the TBD.

MR. FARVER: This is Doug.

My only concern about that, because it is unique to Portsmouth, there have been some folks who have suggested, well, gee, maybe we should apply a missed-dose correction factor to all the sites. So it may affect more sites than just Portsmouth if it is decided that missed dose should have a correction factor.

MS. BEHLING: Yes, this is Kathy Behling.

And that was what I had recommended during the last meeting also. Missed dose is based on a dosimeter reading. So, in my way of thinking, what they are doing at Portsmouth is correct, and perhaps

at the other facilities they should be applying a correction factor for missed dose if they're not.

MEMBER CLAWSON: And this is Brad.

If I could speak for Dave Richardson, this is part of his issue, because one of his questions that came up was, how come this is the only site that does it? Which site is doing it right? Or should this be to all sites? So I would be very careful with this one here because it could affect a lot more than just Portsmouth.

CHAIRMAN KOTELCHUCK: Right, right.

Kathy, your argument seems persuasive, that we are putting in the missed dose, but the correction factor is correcting for other measurements where we have the dose. And therefore that would be the proper dose for the non-missed dose.

And therefore, we should, if you will, extrapolate it to the missed dose.

MS. BEHLING: Excuse me.

You have to remember this is missed dose, not unmonitored dose. And missed dose is based on a dosimeter --

CHAIRMAN KOTELCHUCK: Right.

MS. BEHLING: -- and a less-than-LOD type of a reading from a dosimeter. So if you are going to apply a correction factor to a dosimeter reading, it gets applied to a missed dose also.

CHAIRMAN KOTELCHUCK: Right.

MS. BEHLING: So this needs to be looked at, I think, at all of the sites where a correction factor is being used.

CHAIRMAN KOTELCHUCK: Yes.

MR. SMITH: This is Matt Smith, ORAU team.

CHAIRMAN KOTELCHUCK: Yes?

MR. SMITH: You know, on this issue, typically, the LOD as it's developed

for each TBD is taking into account all the parameters that would affect that final value. This particular TBD is, again, what I would say, kind of a one-off, in that had it been done like other TBDs, anything like a correction factor would have been embedded into the final LOD value, so that we're not applying things on top of it.

In the early days of the project, we had many different TBD authors working all at the same time in a rapid fashion. So now that we're 10 years, 11 years, 12 years down the road, as we look back over these, we do see different approaches, as we see here.

But the general approach has been for each TBD to develop an LOD value that is a one-stop, one-stop-shopping, if I could put it that way, value that we can use. In many cases, when you peel back the layers, you will find LOD values that are given in the TBD already contain a good degree of

cushion in a sense. If you go back and look at them carefully, you will find that the actual LOD is usually lower than what is given in the TBD, but in the spirit of claimant favorability, some extra cushion has been added along the way.

Again, I would say that this TBD is an example of where it was done just differently than the rest of them.

MR. CALHOUN: So what you're saying there, Matt -- this is Grady -- is if the LOD, which is Limit of Detection, by the way, for those out there who didn't know that -- the LOD on some of these other sites may very well include a correction factor. But in the Portsmouth TBD the correction factor is called out individually.

MR. SMITH: That's correct.

MR. CALHOUN: Is there any way we can verify that somehow?

MR. SMITH: You know, right now, you're correct, Grady, that the variety of

GDPs are in kind of a constant -- some have been revised already, but they are probably due for another revision. And that is something that I know is on the list to take a look at, based on the conversations in these meetings, just to double-check that.

MR. CALHOUN: It looks to me that the ORAU, based on our Project Plan -- I just pulled it up, not the ORAU. The Portsmouth External Dose TBD for our current plan is scheduled to be done July 1st of 2014.

MR. SMITH: Yes, there are other issues relating to GDPs that are open.

MR. CALHOUN: Right.

MR. SMITH: And certainly, it would just make sense to grab this one and include it.

My preference, from the ORAU team viewpoint, is that LOD values are just set values that include any and all adjustments, corrections, or errors that need to be

accounted for.

MR. CALHOUN: Well, in an effort to try to put this one to bed, I think maybe we will try to at least look at some of the other GDP LODs and see if we can come up with some kind of explanation or something that shows that the correction factors may be embedded in those. Would that be sufficient to the Subcommittee to close this out, if that turns out to be the case?

MEMBER CLAWSON: Well, this is Brad.

Not being as savvy on all of this as everybody else, I guess I would refer this to our contractor.

Doug or Kathy, is this going to take care of the bigger picture? I still feel a little bit uneasy. What are your feelings on this?

MR. FARVER: Kathy, I will let you speak.

MS. BEHLING: Well, what I am

hearing, if I am correct in what I am hearing, you are only going to look at the GDP sites. I guess I would also like to know what about some of the other DOE facilities. Is that what I am hearing you say, that you would look at the other GDP sites?

MR. CALHOUN: Well, we can ask some people just in general. I don't know if -- I mean, if it is available, we can look. But drilling down into every LOD for every site, because keep in mind there's multiple dosimeters that were used throughout time for each individual site. I mean, we potentially have hundreds of scenarios to look through. But, if we can determine that that's the case and this is an older TBD, I think that should make people feel better.

MS. BEHLING: And I agree. I would just like to see maybe the GDP and, also, maybe just one or two other DOE-type

sites. And perhaps you are correct, perhaps the LOD values do incorporate this missed-dose factor, the dosimeter correction factor I mean. But it would be nice to have a little bit more information, so that we can convince ourselves that that is the case.

DR. BUCHANAN: This is Ron Buchanan.

I would suggest that you look something like at Oak Ridge and Los Alamos, something like that. Look at the labs. Because all of these places pattern their dosimetry after Oak Ridge and Los Alamos usually or maybe Hanford.

So, if you looked at these basic ones that developed the dosimeter -- Oak Ridge actually developed the holder and everything -- and see if their LODs incorporate a correction factor or not, either at the time when they did the readings years ago or for the development of the TBD. Because, then, I think you would

feel a little more sure that the other sites that developed and copied their dosimetry off these basic National Labs, that they would be incorporated.

So I would suggest that you look also at a couple of the basic National Labs and see how that LOD has been determined. This might save you a lot of work in looking at every site.

MS. BEHLING: I absolutely agree, Ron. Oak Ridge National Labs would be a great facility to look at. You're absolutely right.

MR. SMITH: Yes, this is Matt Smith again.

Both of you said exactly what I was about to say. Portsmouth is hand-in-hand with Oak Ridge in terms of the pedigree on the dosimetry system. So we'll benchmark off of Oak Ridge.

CHAIRMAN KOTELCHUCK: That sounds like a resolution.

MR. FARVER: So do you want me to enter in that NIOSH will investigate and compare with a few other facilities?

CHAIRMAN KOTELCHUCK: Well, with the GDP facilities and others.

MR. SMITH: This is Matt Smith.

The most appropriate one to use with relation to Portsmouth and the other GDPs would be Oak Ridge.

MS. BEHLING: Oak Ridge, yes.

CHAIRMAN KOTELCHUCK: Okay. So GDPs and Oak Ridge.

MR. FARVER: Okay. And the goal is what, to produce a report?

CHAIRMAN KOTELCHUCK: It could be verbal.

MR. CALHOUN: Whatever you would like to do. I mean, I think that a one-pager or something. I don't think it is going to be super-involved, actually.

MR. FARVER: Well, I would like to see something in writing, though.

MR. CALHOUN: Some kind of White Paper or something, sure.

CHAIRMAN KOTELCHUCK: Okay?

MR. FARVER: Put the verbiage in.

MEMBER MUNN: Yes, that's reasonable. Even if it is only a single paragraph, it will do.

CHAIRMAN KOTELCHUCK: Good. But we will check it out. So this will come back to us. That's fine.

So that does what we can do for Portsmouth, right? You said there was only that one outstanding. So, I think we're ready to go on to Hanford.

MR. FARVER: Okay. Just a second while I update.

CHAIRMAN KOTELCHUCK: Surely.

MR. FARVER: Okay. I sent out the Hanford matrix yesterday, I believe.

MR. STIVER: Can everybody see the matrix that's up there now? I'm on page 10, which is the Hanford 10 Set.

CHAIRMAN KOTELCHUCK: Yes, I have it, for one.

MR. STIVER: Okay. Does everybody else who is on Live Meeting see this?

MEMBER CLAWSON: John, this is Brad. I can see it.

MR. STIVER: Okay. Alright. I just want to make sure we're all on the same page.

CHAIRMAN KOTELCHUCK: I'm good.

MR. FARVER: The first finding for the Hanford is on page 10. It is 227.1.

CHAIRMAN KOTELCHUCK: There we are. Okay.

MR. FARVER: Defining concerns, using the correct target organ for the medical dose.

Okay. A little background on the case. Let's see. Here's a pipefitter diagnosed with lymphoma of the stomach in 2001. And let me go to the findings.

Okay. Our point of view was that they used the incorrect organ. They assigned the dose values for the remainder organ. And we thought it would be more appropriate to use the stomach as the target organ. And so that was the basis for the finding. We thought they used the wrong organ.

And you can read through the NIOSH response. But the short version is there were three PERs that were issued later on that pretty much implemented what our findings were about, about using the stomach as a target organ.

And they went back and they did redo the case. I don't believe the compensation changed. It was an overestimate anyway.

But that's the short story on that one, that we had some issues, but the PERs that came out called to redo the case. And when they redid the case, they used a

method that we had --

CHAIRMAN KOTELCHUCK: That is to say, used the stomach as the organ --

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: -- in question?

MR. SIEBERT: This is Scott.

One thing I do want to point out is that does not make it an error originally because stomach was not an option in the original TBD. That was before we were breaking that information out. So using the remainder was the most appropriate thing at the time.

We do agree -- and that's why we have updated since then -- that stomach is a better selection. And that's why it has been updated and changed. But I just wanted to point that out, that the dose reconstructor didn't make an error. They did what was in the TBD at the time.

MR. FARVER: Right.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: And so, really, all those changes have been made, and we suggest we can close that finding.

CHAIRMAN KOTELCHUCK: Right.

In a review, how would this be classified, later on when we review for our report to NIOSH or to HHS?

MR. FARVER: Classified?

CHAIRMAN KOTELCHUCK: That is to say, this is resolved, but if it wasn't an error but based on what was done in the first PER or the guidance through the first PER, then this is a change. And we had categories A, B, C, D, E for change.

MR. FARVER: Oh, and I forgot to put them in here. Okay. I'll have to go back and put those in.

MR. STIVER: Wouldn't that be C, Doug.

This is Stiver.

It would be the external

dosimetry model?

MR. FARVER: It would be because we disagreed, basically, with the technical basis.

CHAIRMAN KOTELCHUCK: Good, good. Okay. Fine. Then, C it is. I think we can go on.

MR. FARVER: Okay, 227.2, this is the internal dose model, very similar, and it was PER-9 or PEP-9, and I got corrected on that. The letter in the file states PEP, but Kathy tells me that early on the PERs were PEPs, and it is the same thing, I believe. But that PER took care of that issue.

CHAIRMAN KOTELCHUCK: Good.

MR. FARVER: Once again, it was using the stomach as the appropriate organ.

CHAIRMAN KOTELCHUCK: Right. Good. The same issue, the same resolution, and the same categorization.

MR. FARVER: It would be under

external, and I'm not sure what category that is. I will have to go back and put in the appropriate category.

CHAIRMAN KOTELCHUCK: Okay.

MR. STIVER: External is Category C; internal would be Category D.

CHAIRMAN KOTELCHUCK: Good.

MR. KATZ: This is Ted.

Doug, because I don't recall the categorization, but it makes sense, everything you have said. My only question is, in cases like this where, then, NIOSH has changed the methodology, which has fixed the problem, do you also keep an accounting of that. So that, when the Subcommittee makes its report to the Board, and the Board to the Secretary, it can not only say, you know, there were "X" many where there was a methodology difference or a disagreement, but also that NIOSH improved the methodology consistent with that?

MR. FARVER: What has evolved is

we have our Table 2 checklist from our reviews, and that is pretty extensive. And that was decided on initially.

And now here later on, we are trying to speed things up and break things down. So we came up with just five generic categories. And that's the A, B, C, D category, E, F, I believe. So, we came up with basic categories.

And so now, I really think we are at a point that at some point we need to decide how we really want to categorize these from here on out. What kind of categorization do you want?

MR. KATZ: Doug, I don't want to disrupt this project in just getting through the cases. I am just raising the question because I think at the end of the day, when we do a summary report, we are going to want to know not only which ones were there method issues, but, then, which ones for which there were method issues did NIOSH,

then, improve the method, you know, obviating the problem in the future. So that's all I'm saying. We don't really need to wrestle through it right now. I don't want to slow the flow here.

MR. FARVER: No, no, no. I don't want us to slow the flow, but I'm saying we haven't been tracking that. And if that is going to be useful information, like from here on out, then maybe that is something somewhere we need to track.

MR. KATZ: Yes.

MR. FARVER: And we haven't talked about that. So I think one of our issues coming up is, what information would be useful that we don't have?

MR. KATZ: Okay. So that's all right. We have a discussion later of summarizing review results. So I guess we can address that, put it in there, but I just wanted to get that on the table because I think that will be an important data

element.

CHAIRMAN KOTELCHUCK: Okay. We'll come back to that, then, later.

MR. FARVER: Okay.

MR. CALHOUN: This is Grady.

I just wanted to add one more thing to that. And, Ted, I am glad you brought that up.

Even to go maybe a step further is that this change was made before anybody brought it to our attention that it might not be right. So this was a proactive change that we identified in May, just during the process of our normal Technical Document review and revision. Do you know what I'm saying?

MR. KATZ: Right. Yes.

MR. CALHOUN: But I would rather this not show up as somebody else found the problem; we fixed it. I would rather this show up as we found the problem or we found a need for an improvement and took care of

that ourselves. It is just due to the lag that we have in these documents that we're reviewing, somehow that it appears to be that -- you may not see the good changes that we're making proactively.

MR. KATZ: Well, Grady, that's absolutely a correct distinction. And I think there will be two categories, the ones that actually you addressed in improvements on your own, and the other one where the Board was involved in finding the improvement. I think that is an important distinction.

CHAIRMAN KOTELCHUCK: Right, and let's come back to that when we're talking about summarizing review results later in the day.

And I understand the spirit of that. That is, that when there are things that are changed, we don't want implicitly to point a finger at some party and say, "You messed up," when, in fact, they didn't

mess up.

And the purpose of this is not to point fingers anyhow, but to correct things and move on. Good.

The next one after 227.2.

MR. FARVER: Okay, 227.3.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. FARVER: NIOSH did not address all the monitoring practices described by the claimant. This has to do with some information that's in the CATI report.

And as we have talked about in the past, we believe it is good to at least acknowledge the information that's in the report. And I think NIOSH goes through and describes it very well, and they also agree that it would have benefitted from having the information included in the report. It would not have changed the outcome, but it is just more acknowledging that, yes, he reported this and we should probably have

addressed it.

CHAIRMAN KOTELCHUCK: Was this a case where the person was compensated?

MR. FARVER: Probably not. No, it is not.

CHAIRMAN KOTELCHUCK: Well, then, it becomes more urgent in that case, if I may say.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Because the people who are denied compensation are going to go over the reports very carefully and, rightfully, will say, "Hey," they might say, "You did not consider that," when, in fact, as indicated, it was considered.

MR. SIEBERT: Right. And this is Scott.

I agree wholeheartedly. That's why we put our response in there. This was, you know, we got the initial responses back in 2002, when the program was just starting getting rolling and Hanford wasn't even sure

positively what they needed to send us. Then, in '03, they gave us more information when we requested it. The claim was completed in early 2005.

So, once again, we these days would be a little bit more specific on pointing out that the claimant may have said there was a type of monitoring, and there was not, or we found no reflection in the records of that. Just once again -- and I hate to say this a lot -- but an early case, where we would do things more expansively these days.

CHAIRMAN KOTELCHUCK: Yes. Okay.

MR. FARVER: Yes, this is Doug.

This is what we have seen because we have talked about it in this Subcommittee for years, and we have seen it evolve to what Scott mentioned, where now they do put little statements in.

So probably if we were reviewing this case today, we would probably just make

this an observation. But, at the time, it was still when it was all being discussed.

CHAIRMAN KOTELCHUCK: Okay. And if I may, obviously, I am thinking about the report that eventually will have to be written. How would one categorize this change in our A-through-E categorization? It is not an error.

MR. FARVER: No. Let me see if I can pull up those. I don't have them right in front of me.

CHAIRMAN KOTELCHUCK: Right. The truth is I don't have them all in my head, either.

MR. FARVER: Oh, I don't remember them.

MS. BEHLING: This is Kathy Behling. Obviously, we need to include those categories at the end of the matrix, once they are incorporated, I would say.

CHAIRMAN KOTELCHUCK: Yes. Why don't we just say that? You will put the

categorization in, and let's go on.

MR. FARVER: Yes, that's what I did the last time. And I'm not sure why they didn't get put in here.

CHAIRMAN KOTELCHUCK: Right. I'm now thinking about the report. And so, I'm focused a little more on that now. Okay.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: That's closed.

MR. FARVER: It's closed.

Next is we have got a couple of observations. Both those are where we could not find certain attachments to procedures that were referenced, and it is likely that the wrong reference was used in the document.

MEMBER MUNN: Have you been able to confirm that since?

MR. FARVER: That the wrong reference was used?

MEMBER MUNN: Yes.

MR. KATZ: Wanda?

MEMBER MUNN: Yes?

MR. KATZ: We're talking about Hanford here.

MEMBER MUNN: Oh, I forgot about it. Sorry. Forget the question.

MR. SIEBERT: Let's just say, if anybody happened to ask that question or had it going through their mind --

MEMBER CLAWSON: This is Brad, and I would like to ask that question.

MR. SIEBERT: I thought you might.

Yes, we agreed that looks like it just referenced when you're doing all those subscripts or superscripts, and this was earlier when we had the templates that were much less automated. I believe it was just a reference. It was pointing to the wrong reference.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: And it is the same

for the second observation. They are both very similar.

Observation 3, NIOSH did not address the positive whole-body count result. It is a little sketchy on this because it was in 1981, and the NCRP-94 or Report-94 values stop at '77. They have since changed their policies. So this would be looked at closer, had this been done today.

Dose-wise, it is nothing. It is more a matter of, if it is greater than the body burden from the NCRP-94, what do you do? And that's why I wrote it up as an observation, because we thought it should have been looked at, and it would be today.

CHAIRMAN KOTELCHUCK: And it would be today, in which case was it looked back at? Or was this a compensated case and not looked back at, because it need not have been looked back at?

MR. FARVER: This is still the

same case. So I don't believe it was compensated, no.

CHAIRMAN KOTELCHUCK: Alright. Sure, 227, sure.

MR. FARVER: And honestly, it is not going to make a difference.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: It isn't.

MEMBER CLAWSON: But, Doug, it was an observation that was made. And since that time, there has been a correction, and it is being done now, right?

MR. FARVER: Correct.

CHAIRMAN KOTELCHUCK: Got it. Sorry, you're right, we are still looking at 227 and we have talked about it.

Okay.

MR. FARVER: Next, 231.1. Let me find that case.

Okay. 231.1, inappropriate elimination of urine bioassay monitoring. I'm not even sure I need to get into the

case details. It was about 42-percent PoC and not compensated. And there is a statement in the dose reconstruction that really prompted this, and I'll go read it to you.

Okay, from the dose reconstruction: "The employee also received two baseline uranium in vivo bioassays in 1980 and 1986 which were not assessed because they were not part of the EE's routine monitoring at Hanford."

And that's what prompted it, and our finding was that we don't believe they should ignore or -- I won't say "ignore" because they did look at them -- they should not assess them just because it is not a part of routine monitoring.

Okay. So that was what was written, and that was our position. And now, once we get more information and start digging deeper, we find out that this person worked out there for, it looks like, 30

years. During that time, there were two chest counts and numerous whole-body counts.

On the chest counts, each one, as NIOSH explains, they look at them for americium-241, thorium-234, and U-235. So those are the nuclides that pop up.

Both chest counts were less than the MDA. The employee submitted a lot of plutonium urine samples and one fecal sample for uranium in 1980 and a urine sample for uranium in 1986. And both were marked as baseline. Okay.

So, after looking at it, since there were no other routine uranium bioassays, we agree the potential was low and suggest closing this finding.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. FARVER: It was a little bit awkward because the dose reconstruction mentioned in vivo, and it really was the -- and actually, I think we even mentioned in vivo. No we just said uranium bioassays.

But it was a little confusing, and it turned out to be a baseline urine and a baseline fecal, but no other routine or other special urine samples for uranium.

There's a lot of digging involved when you get into some of these.

CHAIRMAN KOTELCHUCK: So all of these measurements were looked at eventually?

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Or assessed, I should say?

MR. FARVER: They were assessed.

MR. SIEBERT: Yes, this is Scott.

I agree with Doug that the wording in the dose reconstruction report, it probably could have been worded more clearly to say that they were considered. However, they were not assessed based on the fact that they did not indicate exposure to uranium, rather than saying that they were not part of his routine monitoring program.

MR. FARVER: Yes, it's more of a wording issue.

MR. SIEBERT: But, yes, they were all looked at at the time.

CHAIRMAN KOTELCHUCK: Alright. So then it is appropriate to close, yes?

MR. FARVER: Yes.

MEMBER CLAWSON: This is Brad.

I agree with you.

CHAIRMAN KOTELCHUCK: Alright. Any other comments from Committee Members, Subcommittee Members?

(No response.)

No?

Then, let us go on.

MR. FARVER: Okay. The next one is 231.2. Failure to account for internal dose from products.

And there is a second part to it that has to do with the MDA that was used for cobalt-60.

The internal doses from all

fission products are pretty much the ones we have talked about before with OTIB-54 and the radionuclide chooser. And this part of it has been taken care of and looked at through OTIB-54.

The second part is more of a QA issue, where the MDA that was used to determine the cobalt intake was a factor of 100 too low. And we feel that should have been identified, that it is a QA issue that someone should have picked up upon.

Dose-wise, it goes from 14 millirem to 139 millirem and slightly increases the PoC.

We would suggest closing this because it is not much we can do, I mean to fix this. This was something that should have been identified.

CHAIRMAN KOTELCHUCK: Right. But it was corrected and reviewed? The case was reviewed with the corrections?

MR. FARVER: It was reviewed with

the correction. It was not redone.

CHAIRMAN KOTELCHUCK: Right. Okay.

MS. BEHLING: Excuse me. This is Kathy Behling.

Just a quick question. Was this a problem with the radionuclide chooser tool or this has nothing to do with the tool? I just want to be sure there's not an error in the tool associated with the cobalt-60.

MR. SIEBERT: No. This is Scott.

It is not a tool issue. It is the value that was put into IMBA for the calculation was incorrect. So it was a dose reconstructor error.

MS. BEHLING: Okay. Okay. Thank you.

CHAIRMAN KOTELCHUCK: Alright.

MR. FARVER: Okay. So, are we okay to close that one?

CHAIRMAN KOTELCHUCK: It seems so.

MR. FARVER: Okay.

MEMBER CLAWSON: This is Brad.

I agree.

MR. FARVER: 231.3, not able to account for potential internal doses from short-lived fission products. And this has to do with sodium and zinc, which would show up on whole-body counts. And we have talked about this in the past, too, about sodium and zinc.

And because of the sodium, NIOSH did calculate intakes from the sodium-24. It turned out to be less than a millirem. So the doses are not going to show up --

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: -- [less than] a millirem.

Part of this, I went back and looked at OTIB-54, and there is a section in there where they do address short-lived radionuclides and the zinc and the sodium in the different reactor mixes, the fuel mixes,

and the fission and activation products. So it is contained in there.

So if this were to occur today, it should be covered by OTIB-54. I believe I am correct in saying that, Scott?

MR. SIEBERT: I would agree.

CHAIRMAN KOTELCHUCK: Then it sounds resolved.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: Hearing any objection to closing?

MEMBER CLAWSON: Doug, this is Brad.

I just want to make sure on this I understand exactly what happened in this process. I kind of got lost there.

You're saying that OTIB-54 would have, if they were to have used OTIB-54 as of today, then this wouldn't have been an error, is that correct? Or not an error, but this problem --

CHAIRMAN KOTELCHUCK: This would

be taken into account if it was done today, the short-lived fission products.

MR. FARVER: It should be taken into account today, yes.

MEMBER CLAWSON: Okay.

MR. FARVER: One of the big concerns with sodium-24 is it has a half-life of 15 hours. So timing is critical. I mean, that was our position: you're going to miss it if you wait too long.

I know they did look into that in OTIB-54. Based on the percentages of sodium to -- and I forget what it is, if it is to uranium in the fuel, and how it diminishes over time.

MEMBER CLAWSON: Correct.

MR. FARVER: And I don't remember exact tables or pages, but I remember reviewing that. So it is taken care of in there. I mean, they do consider the fact that it is a short half-life.

MEMBER CLAWSON: Okay. So this

was a positive correction to take care of what your issue was?

MR. FARVER: Yes. And we have got this stuff before about the short-lived nuclides and the radionuclide chooser, and it all was taken into account in OTIB-54.

MEMBER CLAWSON: Okay. And, Scott, you agree with this?

MR. SIEBERT: Sorry, I am typing in and speaking at the same time.

Yes, it is in OTIB-54. And I would like to point out that, even back when this claim was done before OTIB-54 existed, there was a process in place at Hanford for assigning or at least assessing the sodium and zinc as well.

MEMBER CLAWSON: Okay.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER CLAWSON: This kind of made it a better process by putting it through in OTIB-54 where it really isn't a question if it is done or not, right? It is

in the process of OTIB-54?

MR. SIEBERT: It is automatically included and discussed in OTIB-54, correct.

MEMBER CLAWSON: Okay. Thank you, Dave. That answers my question.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER CLAWSON: I have no problem.

CHAIRMAN KOTELCHUCK: Good. Close, and let's go on. Any more on 231?

MR. FARVER: There's an observation about the photons for some.

CHAIRMAN KOTELCHUCK: Go ahead.

By the way, I might go off for one second. Somebody is at the door. One second. You folks go on, please.

(Pause.)

Okay, go ahead. Sorry, folks.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: You go ahead.

MR. FARVER: Oh, we made this an

observation because it is really not that critical for this case.

NIOSH used a combination of 25 percent less than 30 keV and 75 percent 30 to 250 keV by selecting it out of Table 6-13, I believe, on their TBD.

Our reviewer thought that, well, you know, it probably would be better just to have all 100 percent 30 to 250 because that would be more claimant-favorable. And it really would only increase the dose by about 50 millirem for the photon dose and 80 millirem for the missed photon dose. It is not a big increase. It was just more a difference of opinion. And that's why it was an observation and not a finding.

So we just wanted to point it out, that in our opinion we thought it would have been more appropriate, but it is not that NIOSH did anything wrong.

MR. SIEBERT: This is Scott.

One other thing I do want to

point out. We did tie that photon energy split to the fact that we believed he was working with plutonium because he actually had monitoring for such. That is the appropriate split for plutonium facilities.

If we switched him to 100-percent 30-to-250-keV facility, yes, I agree that the dose based on the photons themselves may have increased slightly. However, we would not have assigned neutrons at all because that is not for a plutonium facility. That would be a uranium facility.

So the way we did it actually was more claimant-favorable than using a 100-percent 30-to-250-keV breakdown.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Good. So, the argument is that it was claimant-favorable?

MR. FARVER: Yes. It wasn't really even an argument. It was just a difference of opinion.

CHAIRMAN KOTELCHUCK: Thanks.

Alright. Let's go on.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: 242.

MR. FARVER: 242.2, let me get that case up.

CHAIRMAN KOTELCHUCK: What about 242.1?

MR. FARVER: Oh, I'm sorry, 242.1. I'm looking at that and saying something else.

CHAIRMAN KOTELCHUCK: Okay. They're on our screen.

MR. FARVER: The employee worked at Hanford for about 30 years, the forties through seventies; was diagnosed with an oat cell carcinoma of the lung in '88.

CHAIRMAN KOTELCHUCK: This is a Hanford case?

MR. FARVER: This is a Hanford case.

CHAIRMAN KOTELCHUCK: Right. So

Wanda is not on this part of the discussion, right?

MEMBER MUNN: No. I'm listening, but I'm trying to stay very quiet.

CHAIRMAN KOTELCHUCK: Oh, okay. Very good. I'm glad. Actually, you knew that; I had not noted that before.

MEMBER MUNN: That's why you're not hearing the usual comments.

(Laughter.)

CHAIRMAN KOTELCHUCK: That's okay. I'm sorry to interrupt.

MEMBER CLAWSON: But it is real hard, isn't it, Wanda, not to chime-in on some stuff?

(Laughter.)

MEMBER MUNN: Right.

CHAIRMAN KOTELCHUCK: Okay. That is so noted. Let's go on to the discussion about 242.1.

MR. FARVER: Now the employee was a train and bus dispatcher. And it looks

like the dose reconstruction was done in 2006. So this is a rather old one. It was a best estimate, and the PoC was 49.6. So, it was just under 50 percent.

So, with that background, incorrect accounting of recorded photon dose. When our reviewer looked at this case, they came up 20 millirems short in 1947 for the annual dose. So that always bothers me, when you're 20 millirems short or you're short-dosed, and you can't really understand why.

So I went back and did some more digging. The 1947 dose, it is entered into the Hanford workbook, but the workbook has an error in the one cell -- actually, it is AF10 and AG10 -- where it is supposed to sum up the values below it.

And for this person, the 20 millirem was in row 80, but it was only summing up for rows 12 through 63. So, it was not going to accumulate that 20

millirem. So, that's why the 20 millirem was not showing up in the IREP table.

Now this goes back to the workbook, that there seems to be some problems with that version of the workbook for at least that particular year, '47.

And I don't know if, Scott, you have had a chance to look at this and check this to see that I am correct or not.

MR. SIEBERT: Yes, I did look at it. Basically, the workbook was originally set up to respond to 52 cycles per year, which makes sense. That's your maximum for a weekly cycle exchange.

So, the reason it was looking at rows 12 through 63 -- if you do some simple subtraction, that's 52 rows -- it was making the assumption early on that you would have a maximum of 52 dosimeter exchanges.

In the case of this claim, because there were some instances of multiple dosimeters issued in the same week,

there are more than 52 weeks of data to be looked at.

So I agree it is somewhat a shortcoming. I don't know if necessarily I would call it a QA error because the tool was doing what it was designed to do. It is just we need to look at the fact that there may be more weeks of data than originally were thought when it was designed.

MR. FARVER: Well, yes, it was designed -- it did what it was designed to do, but it was designed incorrectly.

MR. SIEBERT: Well, I wouldn't say it was designed incorrectly. I would say that the usage of the additional dosimeters, it is an "iffy" thing, whether we -- well, let me go back.

With the information we had at the time for designing, it made perfectly good sense. I agree that later processes expanded that, so it actually looked for more lines. So I did look. It only does

affect the 1940s data. Later on, it started summing more lines. So, especially in 1957, when they went to monthly exchange rates, you know, even if you only have the 52 lines, we don't have people that have 52 dosimeters when they are on a monthly exchange rate.

So I agree that that version of the tool probably was not as flexible and had the information in it that we could have used at the time, and it did drop the 1947 20 millirem in this case.

MR. FARVER: Right.

MR. SIEBERT: I have had a chance to look, and at least I haven't had -- you know, since we got these yesterday and were looking at them, I haven't had enough time to really look at the various tools that have come after this to exactly when that was addressed. I know that we looked at one where the tool was approximately a year later, and that issue did not exist in that

tool. So we do have a timeline that it looks like we had it corrected at least by mid-2007.

MR. FARVER: Well, I can give you the versions that I looked at, and the error is still there. Version 2.1.0, Version 2.1.2, Version 2.3.3. All those have the same error; only it is in the AG column. So they are still supposed to do the same summing. It looks like the AF column was fixed, but the AG column still sums down to 63. So it was not corrected for those versions, and that covers every case that we are talking about in this set.

MR. SIEBERT: So since you have gone to different cells than what you originally had said, I didn't look at that. So I honestly am not prepared to discuss that.

MR. FARVER: Oh, no, I understand that. I just wanted to let you know.

MR. SIEBERT: Yes.

MR. FARVER: I did that this morning just because I wanted to see what was corrected. So I looked at the AF. That had changed. I just went next door to see if the same change was made there, and it wasn't. So that's the only reason I know.

CHAIRMAN KOTELCHUCK: And we do not know how this affects the overall result, do we?

MR. FARVER: It could miss doses. It could just not pick up doses and sum them.

CHAIRMAN KOTELCHUCK: Right, but what impact would this have on the PoC? We don't know that yet, right, I assume?

MR. SIEBERT: We don't know specifically. It could have a small impact on PoC because I agree with Doug that it may have, as in the case of 1947 --

CHAIRMAN KOTELCHUCK: Right.

MR. SIEBERT: -- it did not pick up that 20-millirem dose.

CHAIRMAN KOTELCHUCK: Right.

MR. SIEBERT: So I have got it down for us to look at that tool and the various versions of it as they go on in time, to look at where exactly that issue arrived and where it departed. And I can tell you, by the time we started using the Vose version more recently, that would not be the issue because it is a totally different -- this is coming from the fact that we are using OTIB-12 as the shortcut for doing best-estimate cases, the pre-run mixed DCF.

So I have it down for us to look at the extent of the issue. And hopefully, by the next meeting, I can give a report as to the extent and what we can do to look at it.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: We looked at -- it was a Version 3.3-something, and the format had changed. So this was no longer being

summed under these columns.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Yes, eventually, it got changed. But my point is that, even after it was identified and was changed in the AF column, the column right next door wasn't changed. So I have a question about version control and verifying that things are correct.

CHAIRMAN KOTELCHUCK: Okay. So, I mean, this will be looked at. It's open, and we will see both what impact it has here. And if it has some impact here, whatever impact it has here, if this is more -- it would be more claimant-favorable to include it, I believe. And if that were the case, one would have a number of other cases to look at, not just the ones we are reviewing, right?

MR. SIEBERT: Correct, and that is why we are looking at the -- that is why I want to see exactly where it was

corrected, so that we can determine what universe of cases we may have to look back at.

CHAIRMAN KOTELCHUCK: Yes, okay.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Good. And that's important.

MS. BEHLING: This is Kathy Behling.

This does prompt in my mind another question, a more broad question with the workbook. When a newer version of a workbook comes out, and you recognize that there has been a more claimant-favorable approach used or something that is going to change in a positive way or create more dose for an individual, do you go back and look at, like a PER process for the OTIBs, do you go back and look at cases that might be impacted by a change in the version of any workbook? I'm just curious.

MR. SIEBERT: I can tell you I

know we have in some cases. As to globally, I can't specifically say one way or the other, since I'm not the person who was the keeper of the workbooks. But we can certainly look into that question for you.

MS. BEHLING: Yes. I think along with -- we should maybe expand this a little bit because it does raise the question as to when there are changes, like as we are seeing with the CADW programs and that type of thing. Are we going back and looking at cases that may have been impacted because they were using an older version, and it would have increased the dose to some extent?

CHAIRMAN KOTELCHUCK: Right. I mean, this may involve considerable work and reworking. But we will know that. Let's give them a chance, the NIOSH folks a chance to look it over --

MS. BEHLING: Sure.

CHAIRMAN KOTELCHUCK: -- and see

the impact a little bit. I understand. They only got this yesterday.

MS. BEHLING: Sure. And I believe that -- excuse me; I'm sorry -- but I believe that Doug indicated that this case was like 49.6 percent. I don't know if we're still on that case or not. But it is certainly something I think needs to be --

CHAIRMAN KOTELCHUCK: Yes, yes. That's right.

MR. FARVER: This is Doug.

I'll tell you what bothers me more about this finding and this result is that NIOSH didn't find it. You know, when they're putting together their response, their response is, "Oh, we missed 20 millirem. Oh, well." No change in total dose would be assigned.

Instead of going in and digging and finding out, well, why wasn't that 20 millirem added in, it is like, oh, well, there's no change. And that kind of

irritates me, that I have got to go into their workbook and dig through their workbooks and find out why that 20 millirem wasn't accounted for.

CHAIRMAN KOTELCHUCK: Okay. Issue raised.

Then, this will be gone over, and we will take a very careful look at this at our next meeting.

MR. FARVER: And what I wrote in was "NIOSH will investigate the extent of the workbook issues."

CHAIRMAN KOTELCHUCK: Yes.

MEMBER CLAWSON: Correct.

Doug, this is Brad.

I just want to make sure because I am looking at both what you and Kathy said. And Kathy raises a very -- I just want to make sure we don't lose that.

And, Scott, or maybe Grady, we are not saying, we're not pointing a finger, but looking at it from a claimant, for us to

be able to come back and say, "You know, when NIOSH finds this, or something like this, they reevaluate it; they look at it. It is a big deal." And to not account for 20 mR or 20 rem, whatever, it doesn't bring a level of confidence to them.

So I want to make sure we look at this globally. When you take any of their workbooks, you go forward; you have found some flaws with it. And how do you make the determination? I guess one of my questions, what I wanted to get to was, how do you make the determination that you go back and look at the doses that have been done with this workbook? If you have found a flaw, is there a process that you have in your QA program or in your just general program? If you find something, like Grady has stated, that you guys fix a lot of this yourselves. Is there a process in place that you evaluate the cases that get done by this or the severity level of it, or whatever?

MR. CALHOUN: As you know -- and we have talked about this in the past -- typically, TBD changes drive the changes in the workbooks, typically. TBD changes that result in higher doses all go through the PER process.

So what we have to look at -- and I think Scott said he was going to go back to the keeper of the workbooks to find out if there is something in place -- that if, for some reason, there is an error found or something in the workbook that would result in a higher dose, whether we go and do a PER-like process for those. So I think that that is on his list right now.

I think that's what you said, Scott?

MR. SIEBERT: That is correct.

MEMBER CLAWSON: And I appreciate that. Thank you.

CHAIRMAN KOTELCHUCK: Okay. Important, and we will come back to it, but

I think we can go on at this point.

I'm partially sensitive to the fact that this issue, essentially, just came up yesterday.

Let's go to 242.2.

MR. FARVER: Okay, 242.2, incorrect accounting of medical x-ray doses.

There were -- let me get the exact number -- there were a total of 19 occupational PA exams. NIOSH assigned 16 PA exams. They were short three exams. That's the first part.

The second part, there were three PFG exams that we thought, and NIOSH assigned doses for two of the exams. Okay. So that is the basis for it.

The first part, for the three PA exams, NIOSH agrees that they should have been included. They weren't included. I went back and looked at the workbook. They were just not entered into the workbook. There's no reason for it. They were in the

records. It is a QA issue. It should have been caught.

The second issue was a '56 dose record that we interpreted as a PFG. And going back and looking at it, and with their explanation, I can see their point. Because on the handwritten record, I think it says "chest" or "CHST" or something. And then, it is 4X5 and there is a cross-mark. And it is not entirely crossed out. So, I could see both points of view. And then, you have the 14-by-17 written in after that.

And going back and looking at that, and after looking at all the other records, I'm thinking it probably was crossed out because it is probably unlikely they would have wrote both those 4-by-5 and 14-by-17 on the same slip.

CHAIRMAN KOTELCHUCK: Could you just clarify? I'm sorry, but I'm not -- I should know, I guess, but I don't, what's a PFG?

MR. FARVER: Photofluorographic.

CHAIRMAN KOTELCHUCK: Oh, okay. Fine.

MR. FARVER: Anyway, so I can see where our reviewer would have come up with that conclusion, but I believe we are incorrect. I believe their explanation is plausible. And I would suggest we close it.

But, then, there is still a QA issue on why those first three weren't included. I can't tell from the records.

MEMBER CLAWSON: So noted.

This is Brad.

I agree to close.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER GRIFFON: Hey, Dave, I'm looking at this one and I note -- this is Mark Griffon -- I note the PoCs. And then, I see the subsequent observations. I am wondering, you know, we're talking -- this is one of Paul's favorite issues -- you know, 49.6, and then, 49.43. Boy, it's a

whisker away from 50 percent.

CHAIRMAN KOTELCHUCK: It certainly is.

MEMBER GRIFFON: And I'm wondering whether the whole case has been looked at in totality after these findings and observations, you know, were all considered.

CHAIRMAN KOTELCHUCK: Yes.

MEMBER GRIFFON: Anyway, that's just a comment, how close this is.

CHAIRMAN KOTELCHUCK: Certainly.

MEMBER GRIFFON: I don't disagree with closing that one, but just a comment.

CHAIRMAN KOTELCHUCK: We're talking 242.2. I'm a little unclear as to why we're closing this particular issue, in that if three were missed and not included initially, and I don't see anyone saying that now they've have been considered, I mean, why is it that leaving the three off -- oh, I see. This translates. I see.

Excuse me. This translates to a PoC of 49.3 compared to 49.6. So, it would reduce the PoC. So, that's why leaving it off is claimant-favorable. That is, it was a mistake. But the mistake favors the claimant.

But I also agree with you, Mark, this is a very close call. I assume, as folks will be fixing 242.1, that they will look over 242 as a whole.

MR. SIEBERT: Well, this is Scott.

When we did the rework, which has that 49.34 percent, that includes everything that was agreed to here in these responses, the 20-millirem in one, the three additional x-rays in two.

CHAIRMAN KOTELCHUCK: Aha.

MR. SIEBERT: So we have already included anything that we agree should have been included originally, and that's where the updated PoC value comes from. We have

already run those calculations.

CHAIRMAN KOTELCHUCK: Okay. So, this response is really to -- the PoC response includes 242.1 as well as .2?

MR. SIEBERT: Correct. Whenever I run PoC responses, I include them in the case.

CHAIRMAN KOTELCHUCK: Yes. Well, okay, good. That's not clear from that writeup, but that's clear when you say it.

Nevertheless, we will be --

MEMBER GRIFFON: David?

CHAIRMAN KOTELCHUCK: Yes?

MEMBER GRIFFON: My only point was that I don't disagree with what Scott said. I am just pointing out that there are three observations, which I am just beginning to look through, and it doesn't look like there's any -- you know, often, we just have these observations that hang out there. But I am wondering if there is any -- you know, this is a very close call and

you have three observations.

CHAIRMAN KOTELCHUCK: Sure.

MEMBER GRIFFON: Would evaluating those observations have any impact on the decision here?

CHAIRMAN KOTELCHUCK: Well, maybe, but I think we need to look at the observations then.

MEMBER GRIFFON: Yes, yes.

CHAIRMAN KOTELCHUCK: Let's look at the observations.

MEMBER GRIFFON: I'm just saying, while we do that, keep the number in mind, yes?

CHAIRMAN KOTELCHUCK: Right. So, 242.2 would be closed.

You're concerned that there may be some sort of, well, that there is an interaction perhaps between some of the different findings. So I don't know what to say.

Let's go on to --

MEMBER CLAWSON: Dave, this is Brad.

I've got to ask Scott a question here.

CHAIRMAN KOTELCHUCK: Okay.

MEMBER CLAWSON: Scott, I want to make clear that what you are telling me is that this evaluation, you went back to the other findings, the 20 mR, everything like that, and added it into the system?

MR. SIEBERT: Correct.

MEMBER CLAWSON: So you added dose to it, and the PoC went down?

MR. SIEBERT: Correct. That is, considering the Monte Carlo calculation and the fact that it is not a straight one-to-one calculation, you are going to see some variability in PoC every time you rerun the analysis.

Now I do want to point out that I did run this final analysis since it was between 45 and 52 percent. We used our

process of 30 separate IREP runs with varying feeds for 10,000 iterations, as opposed to our normal process, and averaged that out, as is done in all best-estimate cases now. And that is where the 49.34 percent PoC comes from.

So, I guess, Brad, what I am saying is, it is not unusual for the PoC to change slightly, and that means it may go up but it may go down slightly, even with the 30 runs. I mean, it is a Monte Carlo calculation; that is the nature of the beast.

MEMBER CLAWSON: And this is where I want to make sure, Scott, because, you know, we hear so many times from claimants, "It's interesting, they found more dose and my PoC went down." And I understand this to a point there, but it is just kind of surprising to me sometimes. Well, okay.

MR. SIEBERT: Well, especially

when they are very small doses, they are going to have very little impact on the overall PoC. And I think the change in PoC you're seeing here has more to do with the Monte Carlo calculation than it does in the addition of the dose, which is why we use the 99 percentile of the PoC calculation to start with.

MEMBER CLAWSON: Okay.

CHAIRMAN KOTELCHUCK: Part of the discussion moves me not to close 242.2, but to leave everything on 242 open and have a discussion about 242 the next time.

MR. SIEBERT: Well, this is Scott.

The only reason I am hedging on that is because, if we look at Observation 1, the point that comes out of Observation 1 is we believe this was probably paid under the SEC already. We don't have the documentation from DOL to prove that, but it fits the requirements for being included in

the SEC for Hanford. So it becomes a moot point for this specific claim.

MEMBER GRIFFON: Yes, this is Mark.

I was just going to say that, Scott. So, you're right, that may make the whole thing moot.

CHAIRMAN KOTELCHUCK: Alright. Then, that essentially moots it, doesn't it?

MS. BEHLING: This is Kathy Behling.

We discussed this, I think, during the last meeting, but could perhaps a corrective action for these types of findings be that you go back to the dose reconstructor? This may be a specific dose reconstructor. And again, as Brad has mentioned, maybe at the end of a lot of these types of findings you do a lessons-learned-type thing, but go back to the dose reconstructor and just say, "Hey, we took notice that there were several chest x-rays

that were missed. Maybe you need to pay a little bit closer attention," or something along those lines.

But would an appropriate corrective action be to go back to the dose reconstructor? I don't know. But sometimes just being reminded of these types of things makes people pay more attention next time.

CHAIRMAN KOTELCHUCK: Okay, although I sort of feel we did this. I think we have discussed this in point one. And it wasn't an error by the dose reconstructor. It was that the program was written up, a program was written up in a way that didn't take into account a certain problem.

It is certainly a good idea to go to the dose reconstructor and say, "Hey, we found this." But, again, it wasn't the dose reconstructor --

MS. BEHLING: It was for Finding 2.

CHAIRMAN KOTELCHUCK: Right.

MS. BEHLING: Finding 2 was the missed chest x-rays.

CHAIRMAN KOTELCHUCK: Yes. Okay. I'm sorry. Restricting the comment to go back to the dose reconstructor on 242.2, yes, yes.

MR. KATZ: Kathy, this is Ted.

I mean, just to keep clear, we find QA issues all the time. The Work Group doesn't need to provide instructions to go back to -- or whatever the remedy is for a QA issue. I think the Work Group work stops with this is a QA issue, and then, the QA thought process NIOSH takes up from there. But we don't need that to close out a case.

CHAIRMAN KOTELCHUCK: Okay.

MS. BEHLING: I agree.

MR. SIEBERT: This is Scott.

One other thing I do want to point out is, normally, when these claims come back on our side and we are reviewing

the findings and doing our responses, I usually have the original dose reconstructor, if they are still on the project, they're usually the ones to do the initial response, based on the fact that is the person who is most familiar with the claim, even if it may be seven years old.

So, in most cases, since it is the original dose reconstructor or a peer reviewer doing the response, they are already aware of the fact that that issue has been raised. So I just want to point that out, too.

CHAIRMAN KOTELCHUCK: Okay.

MS. BEHLING: Okay. Yes. That's great. I wasn't aware of that. Thank you.

CHAIRMAN KOTELCHUCK: So people want to close out 242.2. And since this is an SEC, I see no problem with that.

MR. FARVER: Okay. I will mark that one as closed.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: .1 is still open; .2 is closed. And now, we are into Observation No. 1, which we kind of discussed, where there were letters in the employee's file indicating that it should have been returned. And that is what we saw in the file.

NIOSH comes back and says it was not returned and may have been compensated under an SEC.

MR. SIEBERT: This is Scott.

I believe Stu had spoken about this before, that whenever we request claims to come back, especially under a PER process, it is under DOL's purview whether they will return the claim or not. And they don't tell us why they do not if they do not. So there is really little we can do in the case like that, although in this case it is very nice that we can tell that it looks like it is part of the SEC.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay?

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: No. 2, "Although the resulting doses from the whole-body counts were less than reportable, SC&A believes that NIOSH should have addressed the issue in the DR Report for completeness and for the claimant's benefit."

Fission product doses were assigned based on claimant-favorable intakes, which is true. The current practice of using the standardized report template is to mention all bioassay monitoring types and results in more detail than in a DR Report.

There was a single whole-body count just before the employee was terminated. It was greater than MDA for sodium-24, zinc-65, and cesium-137.

The dose will be negligible, but we thought that it should have been mentioned in the DR Report. And that's why

it was only written up as an observation.

And this goes back to just mentioning things for the completeness and for the claimant's benefit.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: So I don't know that we can take any action on this because, apparently, if this would have happened today, it should have been at least mentioned.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Observation No. 3, "Although none of the resulting doses from the Hanford environment or exposures were above a millirem per year, believes NIOSH should have addressed the issue in a DR Report for completeness."

They did not address environmental internal dose in this DR Report. And once again, this is from 2006.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: The bottom line is,

had it been done today, they would have mentioned something in the DR Report. It would not have changed the dose because there is no dose; it is less than a millirem. But it would have gotten mentioned.

I believe that's correct, Scott?

MR. SIEBERT: Except for the fact that we did actually assign some environmental doses that were over a millirem. But you're right, in the Dose Reconstruction Report it does not call out environmental specifically, like it probably should.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Alright. That completes our discussion of 242 with .1 still left open for further discussion. And that's because of its implication not only for this case, but for other cases.

It is now, folks, almost noon. And I suggest that we take a little comfort

break. I don't know whether we will have -- can we now know whether we are going to have a quorum after 2:40?

MR. KATZ: After 3:00 you mean, I think.

CHAIRMAN KOTELCHUCK: 1:30 to 2:40 was what I had written down.

MR. KATZ: That's what I had said, but before I knew that Wanda couldn't make it back until 3:00.

CHAIRMAN KOTELCHUCK: Ah, yes. Okay. And I was having trouble with my computer at that point. So I missed that.

Alright.

MR. KATZ: Right. So let's just check. Let's just check. The question is really to Mark Griffon and John Poston, what their availability is after 3:00 or 2:40.

MEMBER POSTON: You will have to say that again. I was undoing my mute.

MR. KATZ: So, John, after 2:40 at least -- I mean, Wanda will be missing

until 3:00 -- so, after 2:40, you and Mark Griffon, what's your availability? That is the question.

MEMBER POSTON: I get out of class at 1:30, which is 2:30 your time.

CHAIRMAN KOTELCHUCK: Right.

MEMBER POSTON: So, I'm available probably within five minutes or so, getting back to the room.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: Okay. And then, you, Mark?

MEMBER POSTON: Say 2:40.

CHAIRMAN KOTELCHUCK: Good.

MEMBER GRIFFON: Pretty unlikely that I will be able to be back at --

CHAIRMAN KOTELCHUCK: Okay, in which case --

MEMBER GRIFFON: Will you have a quorum without me or no?

CHAIRMAN KOTELCHUCK: We won't until Wanda comes back at 3:00, but that's

okay. That's fine.

MR. KATZ: Okay.

CHAIRMAN KOTELCHUCK: Then, we will just break from 1:30 to 3:00.

I do believe people need comfort breaks. Let's just make it 10 minutes. Okay? Very good. It's 11:59 Eastern Standard Time. See you in 10 minutes.

MEMBER MUNN: Okay. Thank you.

CHAIRMAN KOTELCHUCK: Bye-bye.

(Whereupon, the foregoing matter went off the record at 11:59 a.m. and went back on the record at 12:09 p.m.)

CHAIRMAN KOTELCHUCK: Let us begin.

So, we are on 288, Set 12. 288, actually, appears to have only one observation. NIOSH agrees that -- there is something that is just listed as 288.

MR. FARVER: This is Doug. I am back.

CHAIRMAN KOTELCHUCK: Ah, very

good.

So, in there any finding in 288?

MR. FARVER: No.

CHAIRMAN KOTELCHUCK: Good. Then, let's see about Observation No. 1.

MR. FARVER: I don't have a date on when this case was done. I would say it was --

MR. SIEBERT: 2005.

MR. FARVER: Okay. An early case.

This looks very similar to the other where we believe that the esophagus would be a better surrogate than the male lung. The doses are very similar. It is a compensated case. So it really wouldn't matter. It is just more of a, "Gee, you might want to take a look at this" type of thing.

CHAIRMAN KOTELCHUCK: What is it you were talking about, surrogate for what? For what kind of cancer, what type of

cancer?

MR. SIEBERT: It is a nasopharyngeal. I always love saying that word. So it is more in the head region.

CHAIRMAN KOTELCHUCK: Aha. Okay. So it is a head and neck finding, which is the usual? Or is it head specifically? Usually, head and neck cancers are just categorized as one.

MR. FARVER: Yes. I don't know. I would have to go dig some more.

CHAIRMAN KOTELCHUCK: No, don't. But it is a head or head and neck. And the question is --

MR. SIEBERT: Right. It appears to be head and neck.

CHAIRMAN KOTELCHUCK: Okay. Good, good.

MR. FARVER: And they chose the lung value as a surrogate --

CHAIRMAN KOTELCHUCK: Rather than the esophagus?

MR. FARVER: Right.

CHAIRMAN KOTELCHUCK: And NIOSH agrees with the esophagus. Head and neck cancers are complicated, but I don't know why -- are there no, I don't want to say "findings". Are there no guidelines for head and neck?

MR. SIEBERT: Well, in 2005, it was not as clearly-defined as we have these days.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Now, Scott, do you know if that has been changed? Has OTIB-5 taken care of that?

MR. SIEBERT: No, OTIB-5 does not apply to medical x-rays.

MR. FARVER: This is for medical x-rays?

MR. SIEBERT: Yes.

CHAIRMAN KOTELCHUCK: Yes, yes.

MR. SIEBERT: Yes, it is medical x-rays.

MR. FARVER: Oh, okay. That's right. The lung.

CHAIRMAN KOTELCHUCK: Ah, so we are assessing the impact of the medical x-rays on a person who happens to have cancer of the head and neck?

MR. FARVER: Right. So, this would be more of a judgment call for the dose reconstructor.

CHAIRMAN KOTELCHUCK: Yes. So, the chest area is certainly the appropriate one. And then, the question is lung versus esophagus. And why would the esophagus better, more appropriate than the lung for that part of the body?

MR. FARVER: Well, I mean, aren't you talking about the nasopharyngeal region?

CHAIRMAN KOTELCHUCK: But the cancer is nasopharyngeal.

MR. SIEBERT: More, I would say, in the epiglottis. And it does seem to make sense to me.

CHAIRMAN KOTELCHUCK: I see. I see. The upper esophagus part of the head and neck?

MR. SIEBERT: But the problem is, the claim itself, the ICD-9 code is 147. It gives no extension. So it really falls into the whole gamut of 147's which do range all the way from generally, I believe, you know, pretty much the back of the mouth and throat all the way down to the upper portion of the stomach, if I remember correctly. So it could be anywhere in that location.

CHAIRMAN KOTELCHUCK: I see.

MR. SIEBERT: It sounds like esophagus probably would be a better choice, in my mind, than the lung. But, as was pointed out, they are very close to the same because, well, physically, they are very close to the same locations anyway.

CHAIRMAN KOTELCHUCK: Uh-hum. Good. Okay. That clarifies it for me.

MR. FARVER: As I recall, the

actual choice of the organ, it is not defined. It is kind of up to the dose reconstructor to choose the appropriate one, is that correct?

MR. SIEBERT: In the cases where it is unclear, such as this, yes.

MR. FARVER: As this, yes.

CHAIRMAN KOTELCHUCK: Okay. And I understand that rationale in terms of head and neck cancer. So, good.

Any other folks want to comment or ask questions?

DR. BUCHANAN: This is Ron.

Yes. The medical x-ray sounds like a small part of a dose reconstruction, but a lot of times it is one of the major parts. And they went a long ways in helping this. It is hard decide on a lot, especially around the head, the face, and the neck area, what organ to use or what position projection to use.

In the past, the older dose

reconstruction, it was very much up to the dose reconstructor. Since they came out and revised some of the TBDs and the Procedure 61, they went to include, oh, a whole list of different areas on the body and what projections you would use for them. And that has cleared up a lot of it. And I think that would be more consistent in the future.

However, there are still areas that it is hard to determine exactly which projection you would use. And so, therefore, the resulting dose.

And so, I just want to say that, yes, this is an area that is very subjective, and they have come a long ways in helping that, but there is still some subjectivity to this area.

CHAIRMAN KOTELCHUCK: Right, right. And this is a compensated case. So, there is no need to think of going back to this one. Just so note: that it's

compensated; that this is appropriate. The esophagus is an appropriate choice, and that there is clearer direction now on how to make an assessment in that case.

Good. That completes 288.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: 289.1.

MR. FARVER: 289.1, "The use of the incorrect photon energy fractions for 200 East and 200 West."

In the Dose Reconstruction Report, they usually list a table of the parameters, the dose conversion factors for the different organs they are considering, the photon energy fractions, et cetera, and for the different areas.

And for this person, he worked in -- and it is listed in the table as 200 -- let me call it out exactly -- I think it is the 200 East and West. It is in the actual dose reconstruction. Anyway, also a K reactor. He was in a separate section.

So, when we look at that, we are going to look at that and say, okay, what's the appropriate energy fractions for 200 East and West? And when we looked them up, they were a little bit -- they were correct in the Dose Reconstruction Report. In other words, that listed the ones for East and West 200. But when they actually did the calculations, they used different buildings' fractions, energy factions for different buildings. And so that is why we pretty much wrote this up saying, "Hey, you didn't do what you said you were going to do."

CHAIRMAN KOTELCHUCK: Okay. So, you are talking about a QA error?

MR. FARVER: Yes. It is finally what the whole thing boils down to is they did things correctly because this employee worked at many different buildings. So what they did was correct. What was written in the Dose Reconstruction Report was in error.

CHAIRMAN KOTELCHUCK: Wait a

minute. They --

MR. FARVER: The photon fractions they used were appropriate for the areas that the person worked --

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: -- because those areas were a subset of the 200 East and West areas. But the 200 East and West areas have a separate photon fraction, which is what was listed in the Dose Reconstruction Report.

So I think one is more general, is saying 200 East and West. And then, they do break down into some of the buildings. They give more specific photon fractions.

CHAIRMAN KOTELCHUCK: And that was not picked up by the dose reconstructor? That specificity within that building was not picked up?

MR. FARVER: No, the dose reconstructor picked up on it, but it was not translated into the Dose Reconstruction

Report.

CHAIRMAN KOTELCHUCK: As it should have been, yes?

MR. SIEBERT: Well, yes.

This is Scott.

We agree that what the dose reconstructor apparently did was they tried to simplify the table by just putting everything into the 200 east and west, rather than breaking it down into separate tables for each of the smaller facilities within 200 east and west. They should have broken them out and given each of the energy splits within those subsets because they are not the same as the overall 200 East and West.

CHAIRMAN KOTELCHUCK: Right.

MR. SIEBERT: So we agree with it. The report was not written accurately to reflect what we actually did.

CHAIRMAN KOTELCHUCK: Okay. So, you agree that it was just not written. It

does not seem to say that in the SC&A report. But, anyway, if it is a question of what was written as opposed to what was done, then we could close it and, then, make sure that that is written in the report.

MR. FARVER: Well, you really have to go back and look at the report that we wrote, and not just look at what we say in the finding.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Because you go back and look into more detail about the finding, and it says, you know, Table 613 gives photon fractions for 200 East and West, divided up in 50 percent 30 to 250; 50 percent 250 photons. And that is what is listed in the DR table. However, when we looked at the calculations, they used 25 percent and 75 percent.

So, all we are really saying in the calculation is the table that you presented in your Dose Reconstruction Report

is not the values you used in your calculation.

CHAIRMAN KOTELCHUCK: Okay. Thank you for clearing it up --

MR. FARVER: It also --

CHAIRMAN KOTELCHUCK: -- for me anyway.

MR. FARVER: -- results in a claimant-favorable dose assessment.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: So it is not that we are criticizing. We are, more or less, saying, "You didn't do what you said you were going to do."

CHAIRMAN KOTELCHUCK: Alright. Good.

Well, other comments? Questions?

(No response.)

Then it sounds like we should close it.

MR. FARVER: Alright.

CHAIRMAN KOTELCHUCK: Alright.

So let's go on.

MR. FARVER: Okay, 289.9, "Did not include all the internal exposure to cesium-137."

This is similar to what we had talked about before, about having whole-body counts that show up with cesium-137, and is it greater or less than the NCRP-94 reports?

In our report, we say that four of the seven positive cesium-137 results were above the levels reported for fallout in the U.S.

Let's see. And the feeling was that they should have been addressed and treated as, you know, calculated in an intake, even though it would have been a very tiny dose.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay. Back to NIOSH's reply, and they give us a response that it is based on a combination of guidance in the TBD.

I don't necessarily agree with what they did. What they did is -- I think it's three criteria in the TBD that you try to determine whether you should calculate a dose from. And they pretty much wrote those down there.

And part of it has to do with you are excluding zinc-65 or sodium-24. Yes?

Scott, can you help me out with any of this? I know what it comes down to, but --

MR. SIEBERT: Sure. This is basically in the TBD. It was understood, and this was back in the 2005-2006 timeframe, remember, an older version of the TBD. It was understood that those median body-burden results for cesium didn't extend out far enough for us to actually use them after -- what was it? -- 1980 or '81.

So there were additional things put into the TBD to state do not consider it as occupational if there are not other

fission or activation products noted or they were actually detected within the whole-body count or, additionally, in the urine samples, urine sampling.

So, the dose reconstructor followed the TBD in place at the time. Once again, this is, as we stated before in the earlier claim, these days we have removed that from the TBD, and these days if it detectable cesium, we will go ahead and assess it. Oftentimes, it is less than 1 millirem and will be left out and explained in the Dose Reconstruction Report.

However, we will assess them. We won't automatically write them off as non-occupational based on these criteria.

MR. FARVER: So it is something that was done years ago and would be done differently today.

MR. SIEBERT: Correct.

CHAIRMAN KOTELCHUCK: And this was an SEC?

MR. SIEBERT: It is at Hanford, and Hanford does have an SEC. And this individual has the appropriate cancer and timeframe. So, likely, they would have been covered under the SEC, I would say yes.

CHAIRMAN KOTELCHUCK: Okay. So, it will be changed in the future and it has no impact on the 289 claim because that has already been compensated. That sounds fine.

Other comments?

MEMBER CLAWSON: This is Brad.

I'm trying to follow and understand what has gone on here, Scott. And I just want to make sure that this -- anyway, we have captured this right. I'm not worried about this claim because of where it is at.

But, Scott, you are saying that this would not happen now because of what change, I guess, is what I am getting at? What did we change?

MR. SIEBERT: Correct. Now in

the TBD we deal with any of the positive bioassays, including cesium-137, by looking at his occupational, even though it may not have been -- we removed this caveat of considering it as non-occupational. So we actually look at them now.

MEMBER CLAWSON: Okay. That is what I wanted.

CHAIRMAN KOTELCHUCK: Good.

MEMBER CLAWSON: Sure. I wanted to make sure that we had a process to be able to capture this scenario. And that is all that you were going for, correct, Doug?

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: Yes.

CHAIRMAN KOTELCHUCK: And that is claimant-favorable, of course. It is all occupational.

MR. FARVER: The short story is it is not going to happen now.

MEMBER CLAWSON: Okay. I have no problem, then.

CHAIRMAN KOTELCHUCK: Good.

MEMBER CLAWSON: We can close it.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay.

CHAIRMAN KOTELCHUCK: Closed.

MR. FARVER: Closed.

Next, 318s. Hang on until I get my files open.

CHAIRMAN KOTELCHUCK: Sure. Moving right along, 318.1.

We can't quite see it now. There we go.

MR. FARVER: 318.1, is it on the screen?

CHAIRMAN KOTELCHUCK: Yes, it is.

MR. FARVER: Okay. "NIOSH did not use the proper dose conversion factor and correction factor."

We have seen this one before. This is the rotational --

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: -- isotopic

geometries for certain cancers. This person had leukemia, worked at Hanford for 25 years or so. Started off, jobs included starting as like a junior rad tech and worked his way up through rad management. So, he kind of started at the bottom and worked his way up over 25 years.

It was a best-estimate case, and PoC was around 45 percent. Okay.

Because of IG-001, there is one section we talked about, 4.4. No, I'm sorry.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: 4.4?

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: There are certain cancers that rotational -- or that AP geometry is not the most favorable. And we have brought this out before, and we have even sent it off to the Procedures group, so that they can look at the wording of it.

And so, when I looked at this,

what I looked was, well, what would I do? You know, because I reread IG-001, and it says that you should use something different. And I'm thinking, well, how do I do something different? What am I going to do? How do I determine what's rotational?

So, anyway, I just looked at it, and it is not that easy to do. But there is a table in there. It is 4.2. And it just gives some common exposure geometry for various jobs and facilities, like a laborer at a uranium facility. And it says it should be 75 percent iso, 25 percent AP. Okay.

So someone has looked at this, and someone has come up with some general guidance. So now I go back to the specific case and what this person did. This person was a rad tech. And I am sure, as a rad tech, being a junior tech, he was in every grungy hole out there.

And when I look at that, I'm

thinking, well, what does a rad tech do? They are surveying. Okay. They are surveying out in front of them. Sometimes they are surveying above. Sometimes they are surveying below. Not all the time the source is in front of them. They could be doing contact dose readings on a drum, have drums off behind them. They're acting as a source.

So, I'm thinking, wow, I'm not sure how I came up with this. And then, I read through the justification that is written there and the conclusion was, well, he's a rad tech; it's 100 percent AP.

And then, I go back and look at that table that's in 4.2, and none of those positions are 100 percent AP. So I really don't believe the justification. I don't believe it is 100 percent AP. I believe it is something different than that that should be applied.

I also don't recall ever seeing

in any case where anything but AP was applied. So in the cases that we have looked at to date I don't recall seeing it anywhere. So I'm not sure that this little section is even being applied.

Anyway, we have moved to transfer that to the Procedures Subcommittee. So I'm not sure that there is anything that we can do beyond that.

I just wanted to point out where I don't believe that is an appropriate geometry for a rad tech, considering it wasn't an appropriate geometry for any of those positions that were listed in there, even a general laborer.

But I guess we will have to close that because I am not sure what else we can do.

CHAIRMAN KOTELCHUCK: Right. And the Procedures Subcommittee will complete the --

MEMBER MUNN: The Procedures

Subcommittee has accepted the responsibility for the overarching issue of geometry.

CHAIRMAN KOTELCHUCK: Good. Okay.

MR. FARVER: And, Wanda, I would just like to point out that it is very -- when I was trying to go through this, it is very difficult. So any additional guidance that could get provided in there would probably help out a whole lot.

MEMBER MUNN: Yes, we are going to try to pursue the larger question.

MS. BEHLING: This is Kathy Behling.

And I think everything that you pointed out, Doug, is very accurate. And I believe this is one of those areas where perhaps the guidance should be more specific and just claimant-favorable. Because, as IG-001 points out, AP geometry 100 percent is just not going to be realistic.

And here is one area where I

don't think it should be left up to the dose reconstructor. It should just be -- and again, this would be something that would be talked about in Procedures -- but it should be something where you select the most claimant-favorable. There is a table there. There's specific cancer types, and it is a correction factor that gets applied to either a rotational or an isotropic.

And I think it would be easier to just select the most claimant-favorable because it is a very uncertain area that we are in here. For this to be one of the judgment calls, I don't think it is appropriate. Just food for thought.

CHAIRMAN KOTELCHUCK: Okay. So, we close out on it.

MR. FARVER: Yes. Yes. I will make a note that the Procedures Subcommittee is addressing it.

CHAIRMAN KOTELCHUCK: Correct. Okay.

MR. FARVER: Okay. 318.2, "NIOSH did not include all the radionuclides in the assessment of the missed internal dose."

This is very similar to what we talked about earlier, about the radionuclide chooser, and how do we know that it is considering other items. And OTIB-54 addressed this issue.

CHAIRMAN KOTELCHUCK: I'm just reading it over, the NIOSH response.

MR. FARVER: Yes, I gave you the short version.

CHAIRMAN KOTELCHUCK: Uh-hum.

MEMBER CLAWSON: Doug, this is Brad.

I believe that we discussed this earlier with Scott. And this OTIB-54, this would be corrected, correct? Or is this --

MR. SIEBERT: This is Scott.

I'm not going to say that there is anything to correct. OTIB-54 is a more appropriate and gets into more specific

methodology for dealing with fission and activation products.

The process that we used before with the chooser was assuming that the individual was exposed to the most claimant-favorable fission or activation product that the measurement could have detected. That is generally an overestimating assumption, that we didn't have a better way to assess it earlier. OTIB-54 is a better way to assess that.

So I am not going to say it was an error before. It was really generally an overestimation of assuming a single radionuclide as opposed to a suite of radionuclides at a generally lower level.

MR. FARVER: The issue that you're referring to, Brad, was about the short half-life nuclides.

MEMBER CLAWSON: That is correct.

MR. FARVER: That's addressed also. This was a more general about

including other nuclides, which is also addressed in OTIB-54. OTIB-54 helped out both situations.

MEMBER CLAWSON: Understand.

MS. BEHLING: And this is Kathy.

I believe that initially we wanted to be sure that this original approach truly was an overestimate. And when OTIB-54 came out, we made the comparison between the radionuclide chooser tool and if you would go to a more detailed approach using OTIB-54 and consider more radionuclides. Is this radionuclide chooser tool still claimant-favorable? And we determined that, yes, it is, and it is appropriate to be used that way.

MEMBER CLAWSON: Thank you, Kathy.

CHAIRMAN KOTELCHUCK: Good. So that should close it. Okay.

MR. FARVER: Okay, 318.3, "NIOSH did not include a uranium in the assessment

of missed internal dose."

Okay.

MEMBER CLAWSON: This is Brad.

My Live Meeting didn't move to the next one. We're on 318.3?

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: 318.3.

CHAIRMAN KOTELCHUCK: Yes. I see. It's okay for me.

MEMBER CLAWSON: Okay. There it goes. Mine just reconnected. Thank you.

CHAIRMAN KOTELCHUCK: Okay.

MR. FARVER: Okay. What's the best way to describe this? Okay. The employee worked there for we say 25 years as a rad tech, probably all over the plant. Okay.

So you look at the bioassay data, and he had chest counts annually for 10 years, from '82 to '92. And as we have mentioned before, when they do the chest counts, the nuclides that show up from the

library are americium-241, thorium-234, and uranium-235. All the results were less than the MDA.

For the urine samples, the employee submitted urine bioassays from '84 to '94, but there were no uranium bioassays. They were all for plutonium.

He was in many buildings all over the site, including some locations that had formerly processed thorium. Now that doesn't mean he was in a thorium area. That means he was listed at a building that had thorium in it at some point, according to the table that is in --

(Interruption on the phone.)

CHAIRMAN KOTELCHUCK: Okay. Do continue, Doug.

MR. FARVER: Okay. Anyway, he worked at different places throughout the plant, but there is no indication that he worked or was monitored for uranium. It was just the indication in the chest counts from

those nuclides showing up in the library.

So after looking at all this and reading the NIOSH response, I understand their response and I agree that the uranium potential is low, and they were correct in not assessing uranium.

CHAIRMAN KOTELCHUCK: And why was the uranium --

MR. FARVER: It was up on the whole-body count -- I would say "the results," but there's no results. It is just one of the nuclides in the library. In other words, it will look for americium-241 --

CHAIRMAN KOTELCHUCK: Oh, okay. Right. And U-235.

MR. FARVER: Yes, thorium-234 --

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: -- and looking for the U-238 --

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: -- and U-235.

CHAIRMAN KOTELCHUCK: Got it.

MR. FARVER: But there was no other indication that there were any uranium bioassays or any uranium area.

CHAIRMAN KOTELCHUCK: That I see. Okay. Good.

Comments, anybody?

(No response.)

No? Then, there is agreement and feeling that we should close it.

MR. FARVER: Okay. I will make the appropriate notation.

Okay. There is one observation. Did NIOSH not include any missed photon dose for the years 2000 through 2004? But there was dosimetry records. He received zero recorded dose.

CHAIRMAN KOTELCHUCK: Okay. Okay.

MR. FARVER: Let's see. Dose-wise, it is really not going to make a difference.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: And even when I went back and looked at his job history for that time period, by that time he had progressed out of the technician level and he was into more management/upper management. So the potential was very low.

I do not remember the dosimetry results for 2000 through 2004.

MR. SIEBERT: Doug, Dave, this is Scott.

They were all zeroes.

MR. FARVER: Okay. But I would agree there would be no potential. And they did assess ambient instead of missed dose.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. FARVER: Trying to look at the big picture, I don't see there is any problem with that. That's probably why we wrote it up as an observation and not a finding.

CHAIRMAN KOTELCHUCK: Right.

Alright.

MR. FARVER: That's all for Hanford.

CHAIRMAN KOTELCHUCK: Well, good.

So, we still have -- what do we have left open for Hanford? Hanford, we still have 242.1.

MR. FARVER: Right.

CHAIRMAN KOTELCHUCK: That's it. Okay. Closed. One remains, 242.1. Good.

Now it is almost 10 minutes of 1:00. Do we have any other cases that are ready to be reviewed?

MR. FARVER: Well, that's what I wanted to mention. I really haven't had a chance to get to the Oak Ridge ones.

CHAIRMAN KOTELCHUCK: Right.

MR. FARVER: They just came across yesterday.

CHAIRMAN KOTELCHUCK: Right.

MEMBER MUNN: Don't we have Portsmouth-Paducah or not?

CHAIRMAN KOTELCHUCK: We finished Paducah, if I'm not mistaken.

MR. FARVER: Paducah was finished last time.

CHAIRMAN KOTELCHUCK: Yes.

MR. FARVER: And Portsmouth we wrapped up today, I believe.

MEMBER MUNN: Oh, we did it first, yes.

CHAIRMAN KOTELCHUCK: That's correct.

MEMBER MUNN: Yes. Okay.

CHAIRMAN KOTELCHUCK: That's what my notes indicate.

MEMBER MUNN: Yes, we started at the back and went forward.

CHAIRMAN KOTELCHUCK: So do we have anything else that we might review? I understand we didn't get to Oak Ridge. I saw the note.

So, okay, ORNL coming up next time.

Anything else? Any other cases to review? Are there any other sites with one or two cases that were set for review that have been done? I think I know the answer.

MR. FARVER: I don't believe so.

CHAIRMAN KOTELCHUCK: I don't believe so, either.

MR. KATZ: This is Ted.

We should go ahead and select more to get done or have Grady or Beth tell us what more they can get to while SC&A will be looking at the ORNL ones, Oak Ridge.

CHAIRMAN KOTELCHUCK: Right.

MEMBER MUNN: Before we move on to what is ahead of us, can we take just a moment to discuss what we have done, what's behind us, and the record on it?

CHAIRMAN KOTELCHUCK: Yes.

MEMBER MUNN: I don't know about other members of the Subcommittee, but I have multiple electronic files for each of

our sets, and some of them make sense and some of them just simply don't because of the way we have had to address things as they come along.

Where do we have the master copy of our matrices, so that any of us can at anytime go to that particular matrix and review all of the things that we have done, run through it and see for ourselves, yes, this is closed, closed, closed, closed?

I had been fooling myself for a long time that we were keeping them in the ABRWH folder in our O: drive. But, of course, we don't have them there. What we have under the DR Subcommittee there is the specific folders that make up the matrix.

CHAIRMAN KOTELCHUCK: Right.

MEMBER MUNN: We don't have the matrices themselves.

So, my bottom-line question is, where do we have the master list up-to-date with everything that we have said, "Oh, yes,

we have to add that to the matrix," "Yes, that note needs to go in," "That note needs to go in." Where is the master that I can go to electronically and review?

CHAIRMAN KOTELCHUCK: Good question.

MR. KATZ: Here's what I would suggest: I think SC&A is probably the keeper of most of that. But, if you recall, Mark Griffon was keeping the matrices for a long time on his own independently and, then, distributing them to everybody in advance of the meetings.

So I think we just need an effort, which will be helpful then for the whole process of what we are going to talk about later, for summarizing review results, too. I mean, if SC&A can just collect all the most recent versions, collect all that information, get with Mark for whatever it might be missing, if there are some gaps in what SC&A has, although SC&A should have

everything from Mark because we have always distributed those before meeting.

MEMBER MUNN: That would be very helpful.

MR. KATZ: And then, we can put those on the O: drive, so that the whole Work Group has easy access to it and doesn't have to fight through their own files, each member, to figure it out.

CHAIRMAN KOTELCHUCK: Very good.

MR. KATZ: So, let's do that. Let's just plan on doing that. We will get it on the O: drive in its own folder, you know, from I guess 8 all the way through 13, get all those matrices in there, and that will be very helpful, I think.

MEMBER MUNN: That would be wonderful.

Also, if we could agree that in the future, the upcoming sets that we are going to be addressing, if we could maintain the updated version of that matrix,

whichever one it might happen to be, in that same file, it would be enormously helpful to me.

CHAIRMAN KOTELCHUCK: Right.

MEMBER MUNN: I just have found it very confusing to have -- in recent meetings we have had updated versions of only what was supposed to be open.

MR. KATZ: Right.

MEMBER MUNN: But I have not had what has been closed before.

MR. KATZ: Right.

CHAIRMAN KOTELCHUCK: I think that is a very good suggestion. It would be my responsibility to update them and get them all on the O: drive, the 8 through 13. Then, I will take it on myself, as I should, to keep it updated.

MR. KATZ: No, Dave --

MEMBER MUNN: I would suggest, instead, David, that you verify that the updates have been properly --

CHAIRMAN KOTELCHUCK: That's good. Yes. In fact, that's correct. That is the correct statement.

MEMBER MUNN: Yes. It can turn out to be a significant time constraint in dealing with these.

CHAIRMAN KOTELCHUCK: Yes. Well, also, SC&A is the one that, in fact, keeps the matrix and puts it on the O: drive, and then, I oversee it.

MR. STIVER: This is John Stiver.

If I could just jump in for a second?

CHAIRMAN KOTELCHUCK: Yes.

MR. STIVER: I think what we have found is that, after Set 9, we went to this site-based review. And basically, what we are doing is putting the other matrices for the sets of sites that we are going to be looking at at the upcoming meetings. And so, there isn't really at this point one big matrix that has everything in it.

Now what I kind of envision us doing would be to set up a folder on the O: drive where we just have them, you know, we have Set 8, we have Set 9, which were closed out the original way, which is just by groupings without regard to a site.

And then, we can just add each of the site-specific matrices, to where you have got a whole listing. There will be 8, 9, and then, 10 to 13 by the original Savannah River, Los Alamos, Rocky, and so forth.

CHAIRMAN KOTELCHUCK: Right.

MR. STIVER: We could do that or we could try to conglomerate them all together for Set 10 to 13, but I don't think that would really help us much to do it that way.

MR. KATZ: Yes, this is Ted.

MR. STIVER: If you have them in one location where they are all up-to-date and available, it would be certainly

beneficial.

MR. KATZ: This is Ted.

MEMBER MUNN: I would even suggest that -- oh, I'm sorry. Go ahead.

MR. KATZ: I was just going to say we can do most of this offline. We don't really need to use a Work Group meeting to do it.

But we don't need to agglomerate anything really. I mean, we can put them on as they are.

I think the main important thing is, going forward, why don't we just establish a practice of: when Doug, for example, sends out an updated matrix to everybody, also post it on the O: drive. And similarly, when Grady or Beth respond with NIOSH's responses, updating the matrix, again, just put that on the O: drive, too. And then, always the O: drive will have the most recent. And I think SC&A could just worry about deleting old versions, so we

don't have duplicate versions. But that will take care of it all.

MR. STIVER: Yes, yes, I agree. I think one of the problems, you know, a lot of this was happening in the last few days before the meeting. And so there are different versions going back and forth.

You can correct me if I'm wrong, Doug, but I think you are submitting the final version, in hopes of preventing that kind of confusion, but maybe it didn't work.

MR. KATZ: I mean, the other thing that would be beautiful would be to actually not be trading versions the day before, but getting these done far enough, you know, at least a week in advance. So, there is just the final version for discussion up there.

CHAIRMAN KOTELCHUCK: Right. Agree.

MEMBER CLAWSON: This is Brad.

I would say one more thing,

especially when we update the matrix. If NIOSH, like what we have requested, maybe a short, little paper explaining, that we have some way to be able to tie to that, you know, a number or whatever. So, we can understand a little bit more fully.

Ninety percent of the time we don't have any papers associated with this. But, when we do, if there is some way that we could go review that, either an ID number or in another folder or something, I would just suggest that we be able have a multiple path.

MR. KATZ: Yes. So, I think, Brad, that is a good idea. And I think what we could just do is White Papers can be filed in the same folder as the matrix set that they address.

CHAIRMAN KOTELCHUCK: Uh-hum, uh-hum.

MR. KATZ: And then, it will all be easy to find.

CHAIRMAN KOTELCHUCK: Can we just have subfolders by any particular site and the associated papers that go in it?

MR. KATZ: Yes, whatever it is, whether it happens to be a whole set or just the site-specific of a set, either way. It doesn't matter.

CHAIRMAN KOTELCHUCK: Okay. Can we come back to what we need to complete yet, beside ORNL's? There are two or three different sites with only one or two cases, maybe not two or three. There are several sites.

MR. STIVER: Can everybody see the table that is up there right now? This is that Table 2 that we saw last time.

CHAIRMAN KOTELCHUCK: Yes.

MR. STIVER: In the yellow highlight are the ones that we have already completed.

Let me just close out this. I am trying to get this to respond, and it is

kind of slow here. Let me move that up a bit.

So, on Table 2, all the yellow highlights are the sites that we have completed.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. STIVER: The green is what we were planning to complete today, which would have been the Oak Ridge, and there are cases at multiple sites, but a lot of those, as you can see, are related to X-10, K-25, and the gaseous diffusion plants. So, I think the idea was to try to get as many of those wrapped into the Oak Ridge matrix as possible.

So, what you are seeing, if we would consider all the multiple sites, is 31. And then, we still have General Steel and Nevada Test Site. So it would be another 18 to close out the Table 2.

Now, before we break out the champagne, we will need to go down to Table

3 here. And these are all the sites that just had one or two cases per site. So, this really didn't fall into that -- it really didn't make a lot of sense to try to bin these by site. So the thinking was that we would come back to these after we have finished the Table 2 findings.

And you can see in Table 3 there are 104 findings all told here. So, there's still quite a few to go.

That said, you know, we can probably -- we seem to be able to knock down about 30 of these per meeting. So, we may be looking at several more meetings yet before we can get these things all completely closed out.

MR. KATZ: Okay. Well, let's just ask -- I mean, this is really a question because these are ones where we need the NIOSH response. So, let's just ask Grady what sort of chunk can be broken out for the next meeting.

MR. CALHOUN: Okay. Well, what I have got here is, I guess, on the 10-to-13 Set, it is not much, but it is the onesies-twosies.

And we have looked at -- I'm trying to see -- a couple of General Steel, looks like three General Steels, a Hooker Electrical, Bethlehem Steel, DuPont Deepwater, International Minerals Corp, Koppers, and Bridgeport Brass, and then, Uranium Mill and Monticello. Those were in, I think, the 10th to 13th Set. So, we have actually started responding to those already.

And obviously, we have got the Oak Ridge set.

MR. SIEBERT: And, Grady, let me help you out a little bit. This is Scott.

The reason Grady mentioned those specific sites is those are the ones that are handled by DCAS, not by ORAU. Since they do the calculations for those sites

themselves, we broke those into kind of a separate grouping because it was easier for Grady and I to keep those separate, since he's handling those and I'm handling the other ones. That's why that became -- it is becoming kind of an extra, a separate DCAS site grouping for us.

What that gives, it is 13, 11 -- there's 11 claims and 29 findings. When I looked at the rest of them beyond that, it would be everything that is left, the remaining sites. There are 25 additional cases and 70 findings that go with those as well.

So my suggestion would be to just break those into the two groupings, the DCAS sites grouping and, then, the remaining sites grouping, which, then, would include NTS, Allied Chem, Ames, INEL, Lawrence Berkeley, Mound, Pinellas. All of those have either three or two claims in them. And then, the rest of them are single claims

from single sites.

MR. KATZ: So given the complexity of this, I think all we really need to do is, between ORAU and DCAS, you guys sort out what sites you will have cases done for the next meeting. I mean, keep in mind we are trying to do these meetings about six to seven weeks apart. So what cases you will have done enough in advance that they can get also to SC&A to have a look at.

And then, just send that to the Work Group and me, the listing of the sites that we will be covering. That can take care of the agenda, then, too. And then, SC&A will know what will be coming during that six-week period for them to add to what they already have with the ORNL and the Oak Ridge site that they have already in their hands to look at.

Does that make sense?

MR. STIVER: Okay. So if you

guys could kind of provide us a list of those sites and cases that you are working on now, then we can come prepared for it and be ready to move forward for the next meeting.

CHAIRMAN KOTELCHUCK: Yes, I find the discussion of the different tables a little confusing. The Table 1 was what I was looking at all along, and that's fine. Table 3 -- that's Table 2 -- Table 3 is, which one is DCAS-only?

MR. STIVER: This is a little different, Dave.

This is Stiver again.

What they are doing is a little bit different than what I thought we had agreed to last time, but I can kind of understand why they are doing it that way.

At the last meeting, what we had agreed to do was to do the Oak Ridge cases --

CHAIRMAN KOTELCHUCK: Right.

MR. STIVER: -- in green here. And then, this last line in Table 2 is cases with multiple sites. And because a lot of those kind of had some elements of, had an Oak Ridge component with them, I believe they were going to go ahead and try to lump those together into one grouping.

But what I am hearing is that -- and then, Table 3, of course, would be kind of the next step. Go back. These are just ones and twos.

And it looks like what they did is they decided, you know, to expedite things, that DCAS could go look at the cases that they were doing separate from ORAU's. It would be like two different groupings.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. STIVER: But, at this point, we are going to have Oak Ridge and, then, kind of a mixture of the ones and twos as they come along. From what Grady said, there are about 11 different sites and --

CHAIRMAN KOTELCHUCK: Right.

MR. STIVER: -- 29 findings, 11 cases.

And so, I'm okay with that as long as we just know in advance what they are going to be providing. And then, we can respond in time.

So, I think at this point we are kind of diverging from the Table 2/Table 3 strategy.

CHAIRMAN KOTELCHUCK: Okay. That's helpful. Thank you.

MR. KATZ: Okay. So, then, we have a plan. Okay. Thanks.

CHAIRMAN KOTELCHUCK: And you folks will communicate to Ted and to me, particularly Ted.

MR. KATZ: Yes, I mean, to the whole Work Group. Just copy the whole Work Group when you figure this out, which sites we are going to be covering. And then, if SC&A doesn't get it, I will make sure it

gets to SC&A, so they can start preparing on those cases.

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: Yes.

CHAIRMAN KOTELCHUCK: Well, then, what we have left for the day -- it is almost 10 minutes after 1:00 -- was plans for completing review, which we are just discussing, but summarizing review results for a Board report, which I suspect is my responsibility.

Certainly, what we talked about, putting things together, everything on the O: drive, will be helpful.

Ted, what are my responsibilities for the Board report? We are not talking about the Board report at Kansas City, right? We are talking about some sort of --

MR. KATZ: Right.

CHAIRMAN KOTELCHUCK: -- multi-year review, right?

MR. KATZ: Right. Right, we are

not talking about the Board report for Kansas City. We won't be ready at Kansas City, I don't think.

CHAIRMAN KOTELCHUCK: Right. Correct. That's right.

MR. KATZ: But this is right; this is the drafting that you will do for the Board to consider. And then, ultimately, it will be a whole Board report to the Secretary. So that is what we are talking about here.

CHAIRMAN KOTELCHUCK: Good.

MR. KATZ: And it is not your responsibility; it is the whole Work Group does this together with SC&A's help and with input from DCAS as well and ORAU. So it is not laid on the Chairman's shoulders.

CHAIRMAN KOTELCHUCK: Good. Well, that's fine.

MR. KATZ: That would be terrible.

CHAIRMAN KOTELCHUCK: Glad to

hear that.

MR. KATZ: But what I wanted to just raise for this, I think one thing, which I mentioned last time, is I think it would be helpful for everyone to review the last report that the Board gave, which was a long time ago, but just to remind, so that everybody can remind themselves of what was covered and how it was covered the last time, what elements. That would be helpful.

But one thing I just wanted to raise for your all's consideration in preparing for this is remembering the discussions we have had when Jim Melius joins us, and so on, about just concerns about the integration, because a lot of things are left out because they are sent off for TBD considerations to a Work Group or to Procedures Subcommittee because it is a general issue.

I think what we want to do this time, which will be different from what we

have done in the last report, is try to integrate it a little bit more to cover not only the case review per se itself, but -- because you are looking at quality. The quality of the science is basically what you are supposed to be reviewing for the Secretary, validity and quality.

But, also, integrating, then, some elements of how things were addressed that were sort of generic issues, either by NIOSH independently, because they made improvements on their own, or in interaction with the Board through those Work Groups and Subcommittees. But, anyway, those improvements to the procedures themselves, whether it is Site Profiles or generic procedures, that relate to the set of cases that were reviewed. So that, in other words, you have given a complete picture of here's what has happened over this period with our review of the quality of dose reconstructions coming out of NIOSH.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: That is my suggestion, anyway.

CHAIRMAN KOTELCHUCK: And, I mean, since I was not part of this before, how do we collectively work on that report? Do people get assigned sections or is this premature? Maybe we should just talk about reading the last report?

MR. KATZ: Yes. I mean, I think it will be helpful to start with reading the last report.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: The process, generally, with the last report, though, was that SC&A was tasked with pulling together generic information, and they pulled together a bunch of tables, and so on, that summarized findings and in their different categories, and so on. So you had a lot of sort of generic -- not generic -- organized, summarized data on the reviews that had been

done over the period.

That is what came to the Subcommittee, and the Subcommittee, then, organized the whole report around that and used SC&A to help with the drafting of material. And then, the Subcommittee improved the reporting itself that went with the data.

CHAIRMAN KOTELCHUCK: Right. Do we have an external timeline on that or external date that we must complete it by?

MR. KATZ: No, no, no.

CHAIRMAN KOTELCHUCK: Or do you have in your mind a timetable, a sense of it?

MR. KATZ: No. I mean, it is really driven by -- I think, as we complete these sets, 10 through 13, it has been a wish of the Board to get this next report done and out to the Secretary. So, I mean, I think really it is just as soon as we can get it done, but the sooner, the better.

CHAIRMAN KOTELCHUCK: Okay.

MR. STIVER: Okay. Ted, this is John. If I could jump in for a second?

MR. KATZ: Yes.

MR. STIVER: I was trying to find the last letter that Dr. Ziemer drafted up. I think it was in July of 2009. And that was regarding the first five sets, I think the first 100 cases.

MR. KATZ: Yes. Yes.

MR. STIVER: As far as I know, that is the last time one of these letters went out.

MR. KATZ: That's right.

MR. STIVER: And so, I couldn't find a copy of that. I have seen references to it in the 10-year report, but I didn't actually have a copy to look at. And it predates my involvement. So if we could at least some of that background information? I think Kathy may have been involved, too, in developing that. So we can kind of put

our heads together. But if I could get a copy of that report, that would be great.

MR. KATZ: Yes. SC&A has it, because it had a big role in drafting the material. But, anyway, it also is on the NIOSH --

MR. STIVER: I just haven't found it yet, but I will see what I can do, if I can locate it.

MR. KATZ: It is on the NIOSH website, too, I believe, or it used to be. I don't know. I haven't looked for it recently.

MR. STIVER: Okay. So that may reflect my searching abilities and everything else.

MR. KATZ: Okay. Well, we will make certain -- you know, I will consult. If I can't find it myself, I will consult and we will track it down, where that report is, in its full glory.

CHAIRMAN KOTELCHUCK: Okay.

Mark, you sent me some materials, and I may have that, also.

MEMBER GRIFFON: Yes, I have various versions of that, Dave.

And I was going to say, as we assemble the matrices, that is probably a good point to kind of organize this stuff because, when we put the first one together, we also classified the findings. So they were DR-specific or site-wide. We sort of classified them.

And we should at least consider -- I'm not saying we have to do that -- but for comparison of the original set, it might be worthwhile.

And then, I agree with what Ted said, too, to integrate some of the other stuff into this report would be good.

I am sure I have the originals that we sent out, and I worked quite closely with Kathy to sort of come up with a first draft to bring to the Subcommittee.

CHAIRMAN KOTELCHUCK: Right. That sounds good.

MEMBER GRIFFON: And Ted's right, SC&A put together some of the tables that we, then, included in the final letter.

CHAIRMAN KOTELCHUCK: Good.

MEMBER MUNN: And as a Subcommittee, we worked on the report for several months.

CHAIRMAN KOTELCHUCK: Oh, that's helpful.

MEMBER MUNN: Yes. And one of the things that was important to me -- I know I'm back on the same horse when I say this -- but it was very important from my perspective for us to all be in the same place at the time we were working on it because it was, after the first draft or two and some conversations about it, it gets to be pretty specific about how to present the information that you have and what flavor to give it.

CHAIRMAN KOTELCHUCK: Yes. Right. And I can understand that sensitivity already.

Well, very good.

Ted, when you get things, you will send them out, both the agenda and the reports that --

MR. KATZ: Yes.

CHAIRMAN KOTELCHUCK: -- you are able to come up with?

It is now 1:15. I think all what we have left is to set a date for the next meeting since we have no more cases to review.

MR. KATZ: Yes, that's right.

CHAIRMAN KOTELCHUCK: And since this is mid-November, it seems to me six-seven weeks puts us into early January. And, I don't know, that may impact, also, on what SC&A and NIOSH are able to complete because there are vacations in that period.

MEMBER MUNN: Yes, there are a

lot. Yes, and remember that we have --

CHAIRMAN KOTELCHUCK: And I'm not even counting parties, just vacations.

MEMBER MUNN: Remember, we have the Kansas City meeting at the end of that month, also.

CHAIRMAN KOTELCHUCK: That's right.

MEMBER MUNN: Which is going to take people off the board for a while.

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: This is Ted.

I just know how life is in the federal world, because a lot of people in December, in particular, have a lot of use-or-lose and end up taking quite a bit in December.

CHAIRMAN KOTELCHUCK: Uh-hum.

MR. KATZ: So, yes, six weeks is really --

CHAIRMAN KOTELCHUCK: Short.

MR. KATZ: It is really pretty

short in this case. So, I was just going to suggest we look at closely following the Board meeting, rather than before it, to allow for it.

CHAIRMAN KOTELCHUCK: Okay.

MR. KATZ: Because, then, many people will be engaged in preparing for the Board meeting stuff, and so on.

I mean, I think it would be okay -- and folks from ORAU and DCAS or SC&A speak up if it is a problem -- but even looking beginning the first full week of --

CHAIRMAN KOTELCHUCK: February.

MR. KATZ: -- February, which is the week after the Board meeting.

MEMBER GRIFFON: What are the dates of the Board meeting, Ted?

CHAIRMAN KOTELCHUCK: The 28th.

MR. KATZ: The Board meeting is going to be the 28th. And I haven't sent out a notice yet, but it is only going to be the day of the 28th.

MEMBER GRIFFON: Thank you.

MR. KATZ: It is not going to be the 28th and 29th. So that's January 28th.

And what I am suggesting is, you know, maybe looking at the 4th or 5th or 6th, if that is not too soon. And I would want to hear from Grady --

CHAIRMAN KOTELCHUCK: Right.

MR. KATZ: -- or Scott about that.

CHAIRMAN KOTELCHUCK: Or the 6th or 7th, Thursday or Friday of the following week, to give people time to recover.

MEMBER MUNN: Yes. And just one other piece of information that may or may not influence your decision one way or another. We tentatively have Procedures Subcommittee scheduled for the 13th.

CHAIRMAN KOTELCHUCK: Good. That is helpful.

MEMBER MUNN: Yes.

CHAIRMAN KOTELCHUCK: Okay. To

me, we would look to, again, Thursday, the 6th, or Friday, the 7th. Or perhaps Monday, the 10th.

Oh, you have yours on the 13th?

MEMBER MUNN: Yes.

CHAIRMAN KOTELCHUCK: It is a little close.

MEMBER MUNN: Uh-hum.

MR. KATZ: Well, they are not interfering with each other.

CHAIRMAN KOTELCHUCK: No.

MR. KATZ: That's not a problem. The 10th is fine.

But let's hear from Grady and Scott about when they could be ready.

CHAIRMAN KOTELCHUCK: Good.

MR. CALHOUN: So, it sounds like you guys are -- you're talking February?

CHAIRMAN KOTELCHUCK: Yes.

MEMBER MUNN: February.

MR. CALHOUN: Well, I don't ever think that far ahead, but I don't have

anything on my schedule the 6th, 7th, or 10th.

MR. KATZ: Okay. So, let's go back to the 6th then.

CHAIRMAN KOTELCHUCK: How about the 6th, Thursday, the 6th?

MEMBER MUNN: That's good for me.

MEMBER GRIFFON: That sounds good.

MR. SIEBERT: This is Scott.

Yes, that's good for me.

CHAIRMAN KOTELCHUCK: Excellent.

MR. KATZ: John Poston, how about you?

MEMBER CLAWSON: This is Brad.

It sounds good for me at this time. I am a lot like Brady; I haven't thought that far ahead.

CHAIRMAN KOTELCHUCK: Well, that sounds good.

MR. STIVER: From SC&A's standpoint, we're okay with that, too.

CHAIRMAN KOTELCHUCK: Okay. I think we have a date.

MEMBER MUNN: Yes, my concern is always for staff and for SC&A --

CHAIRMAN KOTELCHUCK: Yes.

MEMBER MUNN: -- because we get overlapping people pretty heavily.

CHAIRMAN KOTELCHUCK: Right. Right.

How does that sound?

MR. KATZ: Yes, that sounds fine.

John Poston, are you on the line?

(No response.)

Apparently not.

MEMBER MUNN: Can we say 10:00 a.m. again?

CHAIRMAN KOTELCHUCK: Yes.

MR. KATZ: Yes.

CHAIRMAN KOTELCHUCK: Okay. Very good. Okay. Thursday, February 6th, 10:00 to 5:00. And hopefully, we will have plenty of cases to review, because this is a

slightly foreshortened meeting because we don't have further review cases ready.

MR. CALHOUN: This is Grady.

Did we ever get the 16th set or anything from you guys?

MEMBER MUNN: We have data for the 16th set on the O: drive. We don't have a matrix, of course, but we have the cases.

MR. FARVER: This is Doug.

I didn't put together the matrix for the 16th set. I do have it for the 15th set. And I am kind of waiting to see where we want to go with our 14th through 18th set findings.

MR. CALHOUN: Okay. It is just a question.

MR. FARVER: Okay. The 16th set probably isn't out there because we haven't finalized it.

MR. CALHOUN: Alright.

MEMBER MUNN: I would suggest, as we begin to put the matrices on the O:

drive, that we have an entirely new folder for it, rather than putting it in the DR Subcommittee folder. If we had a folder that was DR Subcommittee matrices, it would be helpful and easier to get to directly, I think.

MR. KATZ: Well, it could be a subfolder. I think it is easier to be hierarchical than to have a bunch of them spread out everywhere.

CHAIRMAN KOTELCHUCK: Yes, let's put it in a subfolder.

MEMBER MUNN: Okay.

CHAIRMAN KOTELCHUCK: Okay, folks, I think we have completed the work that we can complete today. And we will meet again in early February, and we may try to compress our times after that because we have got a lot of work to do.

MR. KATZ: Right.

CHAIRMAN KOTELCHUCK: Okay. Well, thank you all.

And John probably has left for class. So, Ted, could you just email him that we finished for the day, so he doesn't run back at 3:00?

MR. KATZ: Yes. Yes, I will email him, and I will also let them all know the next date, right.

CHAIRMAN KOTELCHUCK: Okay. Very good.

Thank you all.

MEMBER MUNN: Thank you.

MR. KATZ: Thank you.

CHAIRMAN KOTELCHUCK: Bye-bye.

(Whereupon, at 1:23 p.m., the meeting was adjourned.)