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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MONDAY
NOVEMBER 8, 2010

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The Subcommittee convened in the Zurich Room of the Cincinnati Airport Marriott, 2395 Progress Drive, Hebron, Kentucky, at 9:00 a.m., Mark Griffon, Chairman, presiding.

PRESENT:

MARK GRIFFON, Chairman
BRADLEY P. CLAWSON, Member
MICHAEL H. GIBSON, Member*
WANDA I. MUNN, Member
JOHN W. POSTON, SR., Member
ROBERT W. PRESLEY, Member
DAVID B. RICHARDSON, Member*

ALSO PRESENT:

TED KATZ, Designated Federal Official
NANCY ADAMS, NIOSH Contractor*
ISAF AL-NABULSI, DOE*
ROBERT ALVAREZ, SC&A*
KATHY BEHLING, SC&A*
DOUGLAS FARVER, SC&A
STU HINNEFELD, DCAS
EMILY HOWELL, HHS*
JENNY LIN, HHS*
JOHN MAURO, SC&A
SCOTT SIEBERT, DCAS*
BRANT ULSH, DCAS

*Participating via telephone

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

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

9:08 a.m.

MR. KATZ: This is the Advisory Board on Radiation and Worker Health, Dose Reconstruction Subcommittee. I am Ted Katz. I am the Designated Federal Official of the Advisory Board. We are going to begin with roll call, with Board Members in the room first.

CHAIRMAN GRIFFON: Mark Griffon, Chair of the Subcommittee.

MEMBER CLAWSON: Brad Clawson, Work Group Member.

MEMBER PRESLEY: Robert Presley, Work Group Member, non-conflicted.

MEMBER MUNN: Wanda Munn, Board Member.

MEMBER POSTON: John Poston, Board Member.

MR. KATZ: And, on the line, Board Members?

MEMBER RICHARDSON: David

Richardson, Board Member.

MEMBER GIBSON: Mike Gibson, Board Member.

MR. KATZ: We have a full slate here. NIOSH-ORAU Team in the room?

MR. HINNEFELD: Stu Hinnefeld from NIOSH.

DR. ULSH: Brant Ulsh from NIOSH.

MR. KATZ: NIOSH-ORAU Team on the line?

MR. SIEBERT: Scott Siebert from the ORAU Team.

MR. KATZ: Welcome, Scott. SC&A in the room?

DR. MAURO: John Mauro, SC&A.

MR. FARVER: Doug Farver, SC&A.

MR. KATZ: SC&A on the line?

MR. ALVAREZ: Bob Alvarez, SC&A.

MS. BEHLING: Kathy Behling, SC&A.

MR. KATZ: Welcome to both of you. Federal officials for HHS or contractors to HHS or other federal agencies on the line?

MS. HOWELL: Emily Howell, HHS.

MS. LIN: Jenny Lin, HHS.

DR. AL-NABULSI: Isaf Al-Nabulsi, DOE.

MS. ADAMS: Nancy Adams, NIOSH contractor.

MR. KATZ: Welcome to all of you. And there are no members of the public in the room. Are there any members of the public on the line?

Okay then. It is -- Mark, your agenda. We did not, we did not, except in the Federal Register.

CHAIRMAN GRIFFON: Then we'll do the basics. Okay I think we are ready to start. This is the Subcommittee meeting and if you -- I don't know who is on the phone today but those of us who have been following it, we are going to continue on with our work on the matrices. We are on the seventh set of cases. I think we still have a few hanging out on the seventh set if I recall. I'm looking to Doug

and Brant.

DR. ULSH: Yes, I think there are some open items.

CHAIRMAN GRIFFON: Right, and then on the eighth set, the same thing so I think we are going to continue on the two matrices. The only other agenda item I really have is the follow up on the first hundred cases review report and the status on that with regard to the quality assurance cases, and then one other item that -- the response to Paul Ziemer's questions, I guess, that came back from the --

MR. KATZ: There's another item, too.

CHAIRMAN GRIFFON: There's another item, too. I'm looking at Ted, and he's like no, that's not the one yet.

MR. KATZ: No, because we are supposed to do a preliminary selection of the fourteenth set of --

CHAIRMAN GRIFFON: Okay, preliminary

selection, okay. All right. All right. So we will do that as well. So I think to start off, if we can go to the seventh set and then let me just ask, for process sake, do we have a preliminary list from NIOSH of the fourteenth? You gave us some --

MR. HINNEFELD: We have -- yes, we have the preliminary set. We don't have the additional information that we get from ORAU sometimes because we were late getting that to them.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: And so that's not available yet so we don't have the additional information but we have some 51 or 52 that we chose essentially the highest PoC numbers, but we dropped a few if they were -- you know we didn't get a whole bunch from the same place as I think --

CHAIRMAN GRIFFON: Or not the highest PoC numbers but --

MR. HINNEFELD: Well, the 50s.

CHAIRMAN GRIFFON: Right, right, right.

MR. HINNEFELD: Fifty, not the highest, the ones closest, you know, to 50 but below.

CHAIRMAN GRIFFON: Got you. Right.

MR. HINNEFELD: And what were the other --

DR. ULSH: Well in general -- I made the initial selection. In general I stuck with the ones that were close to 50, but not all of them are close to 50. Some of them are down in the 30s. I tried -- some things that I looked at, I tried not to get too many from one site, I tried not to get too many over 50 maybe just a handful because I know that is of less interest, and I also gave more favor to sites that did not already have an SEC in place at the time.

CHAIRMAN GRIFFON: All right. Okay. And do we have a printed -- did you send that to us?

DR. ULSH: I sent it to you.

MR. HINNEFELD: I have a hard copy. I can make copies of it.

CHAIRMAN GRIFFON: That's what I was thinking. Maybe at the break or at lunch you know, we can take this up right after lunch if that makes sense.

MR. HINNEFELD: Yes, I have a hard copy.

CHAIRMAN GRIFFON: Make copies -

MR. HINNEFELD: I have hard copies, and -

CHAIRMAN GRIFFON: Yes. Okay. We can do the selection. All right. Maybe to start we can start on the seventh set and find the final ones. I am going to pull up the matrix while maybe Brant and Doug, maybe you guys can tell me what the outstanding ones were.

MR. FARVER: I don't believe SC&A had any actions in the seventh set. None that I found.

DR. ULSH: That'll make it fast

because we haven't done -- we don't have anything new to report on the seventh or eighth set. However there are still the initial responses to the ninth set that have been delivered to the committee about a year ago that we haven't picked up yet.

CHAIRMAN GRIFFON: All right.

DR. ULSH: So I --

CHAIRMAN GRIFFON: Well, I guess we'll have to work on the ninth set then. It sort of drives the agenda right? All right.

DR. MAURO: Didn't we make it one time through the eighth set though?

CHAIRMAN GRIFFON: Yes, we did. We did.

DR. MAURO: And of course there were a lot --

CHAIRMAN GRIFFON: But there were a lot of follow up actions.

DR. MAURO: Oh, yes.

CHAIRMAN GRIFFON: That's what I wanted to go back to, yes.

MEMBER MUNN: And we had quite a number still from the seventh set that -- in March were still NIOSH actions that were hanging out --

CHAIRMAN GRIFFON: Well actually we had a meeting in July, and I think we were down to two or three, if I recall -

MR. KATZ: There's practically nothing left in the seventh set.

CHAIRMAN GRIFFON: Yes. There was only a couple as I recall.

MEMBER MUNN: It's still out there.

CHAIRMAN GRIFFON: I mean, do we need to refresh memory on that, or are you pretty clear on the actions? Should we go through the seventh and eighth just to make sure we are all on the same page?

MR. HINNEFELD: I don't have my notes from the July meeting with me, and that would be where I captured what was left. I don't know if anybody has their notes from the July meeting.

MR. FARVER: Well, I'm just going by what -

CHAIRMAN GRIFFON: I mean I did send the updated matrices.

MR. HINNEFELD: Okay. After the July meeting?

CHAIRMAN GRIFFON: Yes.

MR. FARVER: And there's not that many.

CHAIRMAN GRIFFON: It should be labeled like July 23 or something like that, for some reason that comes to mind.

MEMBER MUNN: Yes correct.

MR. FARVER: Half dozen findings maybe.

MEMBER MUNN: SC&A agrees on this one and that one. I'm not sure I caught --

CHAIRMAN GRIFFON: I mean, if we need clarification this would be a good time to do to it.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: But I don't want

to -- you know, I don't want to waste the time, but we are all here, we have got the time, so -- let me just pull up the seventh set, now that I've finally got my computer -

MEMBER MUNN: Item 2.2 still outstanding to NIOSH.

CHAIRMAN GRIFFON: Well, it looks like even the first one, 121.1, remains NIOSH action. 121.2 -- 121.3 -- I think part of these are that they are all related, you know.

It seems to be mostly 121 and 122 that I find, but --

MEMBER MUNN: Then there are -- down 135 --

MR. HINNEFELD: Yes, there are still some other ones. I mean, do we do --

MR. HINNEFELD: Well, I'm still looking for the --

CHAIRMAN GRIFFON: The matrix?

MR. HINNEFELD: The updated matrix.

CHAIRMAN GRIFFON: Okay. I was going to say all the highlighted ones, I thought

that suffices as far as an action list it should be able to prompt people.

MR. HINNEFELD: Our list -- our notes pick up at 125.9 so --

MEMBER MUNN: You had highlighted in green that time.

MR. FARVER: So you sent out the matrices a while ago.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: In July.

DR. ULSH: I have 7/19. Is that what -

MR. FARVER: No, you sent it in either September or October.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: 7/23 -

CHAIRMAN GRIFFON: Well, the meeting was 7/23, yes. I don't remember when I emailed it, but it wasn't right away, but it was, you know, a month or --

MR. FARVER: September or October it was --

CHAIRMAN GRIFFON: Yes, maybe two months later. It might need some cleaning up though because I see one here that has yellow highlighting all throughout and then the 7/23 response says SC&A agrees no further action.

MEMBER MUNN: Further down, you have a couple more.

MR. KATZ: An SC&A one -

CHAIRMAN GRIFFON: Yes. Was there an SC&A one?

MR. KATZ: Yes, it was in green.

MR. FARVER: Which one was that?

CHAIRMAN GRIFFON: No, it remains a NIOSH action. I don't know why it's in green.

There is one -- yes there are, there is at least one. I've found it. It says SC&A will review references regarding the use of in vivo counter. NIOSH will examine --

MR. FARVER: Which one is that, Mark? What number?

CHAIRMAN GRIFFON: This is 137.7. Well, here's what I suggest. Why don't I go

through these because instead of just poking around, why don't we just walk through them and clarify and make sure everybody is in agreement, and I can update the highlighting and send out another revision of this so it's cleaner.

So starting with the beginning, 121.1. Let's see. I have, remains a NIOSH action item, but that was on 3/22. I don't have an update on that from 7/23, which is a little odd. The same thing on the next couple of items.

MEMBER MUNN: I have the same thing but we just -- I think the first few when we were agreeing that nothing had happened --

CHAIRMAN GRIFFON: Right, that's probably why. That's probably why. You didn't do anything on those cases, so I think they are still outstanding. We just didn't update the matrix in that July meeting.

MEMBER MUNN: 122 had --

MR. HINNEFELD: In my notes --

CHAIRMAN GRIFFON: Do you have the matrix, Stu?

MR. HINNEFELD: I do have. I do have the one you sent.

CHAIRMAN GRIFFON: Okay. So you can follow along. I mean 3/22, if -- I'm assuming this still is a NIOSH action item because it wasn't closed. There's nothing saying that we closed --

MR. HINNEFELD: Yes, I guess we didn't bring anything on that. 121 is -- does anybody have handy what site that finding was?

MR. SIEBERT: It was Aliquippa Forge.

MR. HINNEFELD: Aliquippa Forge? Okay. That might be ours.

CHAIRMAN GRIFFON: So 121.1, .2, and .3 --

MR. HINNEFELD: Ours rather than ORAU's. Sorry, I knew as soon as I said it I had mumbled it, which I have been told I do.

MEMBER MUNN: Pretty much the same

is true 122.

CHAIRMAN GRIFFON: Yes, 122 point -- so 121.1, .2 and, .3 remain NIOSH action items. 122.1 --

MR. SIEBERT: And 122 is Simonds Saw & Steel.

MR. HINNEFELD: That was Scott Siebert.

MR. SIEBERT: Sorry about that.

CHAIRMAN GRIFFON: And 122.3, 122.1 and .3 remain NIOSH action items.

MEMBER MUNN: You got all kinds of-

CHAIRMAN GRIFFON: Well yes, I think it's the whole case really, probably, right. Yes. 122.7 also. Yes. Yes. I think the whole case on that, the Simonds Saw & Steel, yes. Okay.

Then I think we go to the one you were looking at, Stu. 125.9, that's the one you were talking about Stu, right, earlier? Yes. And that says remains a NIOSH action item.

And now we go down to 127.11. Oh that is also -- that's closed actually, so I'm going to take the highlighting off that. I have SC&A agreed no further action. Do you agree with that, Doug?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: I'll take the highlighting off of that, change that weird font that --

MEMBER MUNN: I thought that was -- it was nice, calling to attention you can stop worrying about it.

CHAIRMAN GRIFFON: Oh, okay.

MEMBER MUNN: A good color for that.

CHAIRMAN GRIFFON: Next one I have is 131.4 and that says SC&A agrees no further action so that will be -- remove the highlighting on that, too.

MEMBER MUNN: I think you ought to use that nice puce color.

MR. KATZ: What was the date of our last meeting?

CHAIRMAN GRIFFON: I thought 7/23.

MR. HINNEFELD: 7/23.

MR. KATZ: That's what I thought. So do we need to do something different? Why did this all fall through?

MR. HINNEFELD: From our standpoint, it was a matter of getting to things to -- you know, in the time that we were gone and from with our contractor, we have been battling with our contractor in terms of priorities for a while, and, candidly, things in front of the Advisory Board that don't relate to an SEC petition -- when you have priority -

DR. MAURO: Mark, certainly let's go through this, but I have a funny feeling Simonds Saw is very mature now. I mean you have --

MR. HINNEFELD: I think well, it's just that I think we can get some responses on there, I don't know --

DR. MAURO: Yes, my guess is your responses are all in your, you know, in

concept, because when we did the review of Simonds Saw case subsequent to that you have a Site Profile review that we are active on right now, you have an ER I think that's coming up.

MR. HINNEFELD: There's an Evaluation Report going to be presented to the Board.

DR. MAURO: Right, so I mean it would be very --

CHAIRMAN GRIFFON: It's a matter of marrying the two I think --

DR. MAURO: Yes. So I mean we --

CHAIRMAN GRIFFON: And then we will have it done, yes. Yes.

MR. HINNEFELD: It's just a matter of getting some responses on here that are consistent with the Evaluation Report that was presented.

DR. MAURO: You are probably there already.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: All right, so the next one I have is 135.1, and that is still an outstanding NIOSH action, 135.1. We are almost through this. It will only take a minute.

135.4, next one I have.

MR. FARVER: It's on 134, you said?

CHAIRMAN GRIFFON: That was 135.4.

MEMBER MUNN: For some reason, that ended up highlighted.

CHAIRMAN GRIFFON: All right. Well, this was -- the next one I have is 137.6, and we say SC&A agrees and the item is closed, and then there's this other part that says NIOSH agrees to a clarification to TIB-60. So this is sort of a in abeyance kind of thing, isn't it? You know, from talking Procedures terminology. So I don't know, I think it was closed in terms of this case review. That's what we were saying. Stu, I don't know if you remember this one.

MR. HINNEFELD: Okay. Let me --

MEMBER MUNN: It's being followed in

Procedures -

CHAIRMAN GRIFFON: Yes, I just don't want to lose the action, you know. Yes, I think it's something we have mentioned several times, but -- well, I'm going to -- I'll just leave it highlighted in the matrix but we all understand that, you know --

MEMBER MUNN: I believe we have it on the Procedures matrix.

CHAIRMAN GRIFFON: Okay.

MEMBER MUNN: I think so. I'll double check.

CHAIRMAN GRIFFON: I'll put a note in there, moved to Procedures.

MR. FARVER: That has to do with them not including all the solubility classes in the claimant's file, or any --

CHAIRMAN GRIFFON: That was part of it, yes, the show all work concept and that was --

MR. FARVER: And I think we're going to add something to the procedure --

CHAIRMAN GRIFFON: This particular one, yes.

MR. FARVER: To clarify that it should be added.

MR. HINNEFELD: No, no, we need to make sure that we get that action to ORAU - on the action to revise that procedure.

CHAIRMAN GRIFFON: Yes, so really, I'm going to delete it up -

MR. HINNEFELD: We transferred -- that's -

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: So we need to make sure that ORAU gets that action.

CHAIRMAN GRIFFON: Okay. Do you want me to leave this highlighted in the matrix, Stu?

MR. HINNEFELD: Fine by me, I mean -

CHAIRMAN GRIFFON: Okay, I'll just leave it highlighted. Yes. It says now that transferred but you guys have to do the follow up.

MR. HINNEFELD: Yes, I mean that's going to fall to us.

CHAIRMAN GRIFFON: Right, right, right.

MR. HINNEFELD: And we are going to show them the procedures and -- you'll have the same -- we're saying, okay, now what about -- what's this one.

CHAIRMAN GRIFFON: Right, right.

MEMBER MUNN: Yes. I'll double check it to make sure we had it in abeyance.

CHAIRMAN GRIFFON: 137.7 I have an action for SC&A and NIOSH on this. That was one I just mentioned before.

MR. FARVER: And then if at some point today either Stu or Brant he can tell me where that reference is located, where it's located on the -- apparently it's located somewhere.

MR. HINNEFELD: Okay, a reference to --

MR. FARVER: It's the Y-12 mobile in

vivo counter.

MR. HINNEFELD: Okay. Scott? You are listening in, right?

MR. SIEBERT: I am.

MR. HINNEFELD: Are you following along on the findings and you can see where -- we are talking about a reference to the mobile counter on this finding?

MR. SIEBERT: At 137.7?

MR. HINNEFELD: Yes.

MR. FARVER: Yes, you gave the reference number I believe at the last meeting but I did not know where that is located.

CHAIRMAN GRIFFON: Oh, if you go with the Site Research Database you can search --

MR. HINNEFELD: I bet if you go to Paducah, if you've got that reference ID, if you go to Paducah, I bet you'll find it. Paducah.

MR. FARVER: Okay.

MR. HINNEFELD: Because I bet you'll

find it at Paducah; I bet you'll find it at Fernald.

MR. FARVER: What -- where is that located, I mean --

MR. HINNEFELD: Okay. I can show you on a break but you go to site research on staff tool.

MR. FARVER: If you just show me at a break --

MR. HINNEFELD: Yes.

MR. FARVER: We will work that out.

CHAIRMAN GRIFFON: And then the next one, 137.8. This is transferred to Procedures but I'll leave it as highlighted because --

MEMBER MUNN: Correct, and I'll double check it.

MR. HINNEFELD: Now, anything we transfer to Procedures you want to make sure we get to the database.

CHAIRMAN GRIFFON: Part of TIB-17, it says, yes.

MEMBER MUNN: It'll be on our

database. I'll double check it.

MR. HINNEFELD: Yes, and we'll have to write it. You are just going to write this finding into whatever procedure is going to change, and it'll be an imported status, and we can talk about it later, but there's a way to put it in there so we don't -- and then we also have to check to make sure this document is in front of the Procedures Work Group, otherwise it -- like if it's closed and it's not being -- by Procedures Work Group then it just disappears.

CHAIRMAN GRIFFON: I think it is according to Wanda, right.

MEMBER MUNN: I think it is.

DR. MAURO: Seventeen, that's the non-penetrating radiation procedure?

MEMBER MUNN: I never remember which is which.

MR. HINNEFELD: Seventeen, I believe is non-penetrating.

DR. MAURO: Okay.

CHAIRMAN GRIFFON: I think you're right because it's technetium. And is there any more? These red ones here. They shouldn't be red.

MR. FARVER: Did you say they are not supposed to be red or --

CHAIRMAN GRIFFON: I don't think -- yes, it was just there is no reason for them to be, except maybe I was highlighting that they are all transferred to Procedures so --

MEMBER MUNN: Well I think, I think one of the early things that we did, we put that particular day's process --

CHAIRMAN GRIFFON: In red, yes --

MEMBER MUNN: The responses we had in red that day.

CHAIRMAN GRIFFON: Maybe, yes. That could be why. Yes.

MEMBER MUNN: Just to show us that it was a -

CHAIRMAN GRIFFON: Right, right. Okay. So that's it. That's all I have. Want to

do the same thing with the eighth set and then we can get on to the new stuff? Okay. Probably worthwhile. And it's labeled the same way, Eighth Matrix, July 23, the end of it. Everybody have that document?

Let's see if I did better with my highlighting. Apparently not. Is 149.1 -- it says no effect on this case. NIOSH to review SC&A's analysis, the badge data. No effect on this case since the case was compensable so do we say it was closed? I'm not -

MR. HINNEFELD: Well -

CHAIRMAN GRIFFON: That might -

MR. HINNEFELD: We didn't capture it on our notes.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: We didn't capture our notes, 149.1 we did not capture it as an action item so I don't know if that means it's closed or not.

CHAIRMAN GRIFFON: Doug, do you have that on your notes?

MR. FARVER: I thought it was closed but --

MEMBER MUNN: What number are we looking at?

MR. FARVER: 149.1.

MEMBER MUNN: .1?

CHAIRMAN GRIFFON: Yes, I mean we say no affect on the case but I don't know if we really resolved the differences that you were having, analysis of badge data as compared to --

MR. FARVER: I don't know that we have.

MR. HINNEFELD: This is that statistical one.

MR. FARVER: Yes.

MR. HINNEFELD: No wonder I keep blocking it out. Okay we should take this one down.

CHAIRMAN GRIFFON: I think it is still an open item, yes.

MR. HINNEFELD: Yes, because it's

not so clear to me that this issue would affect only this claim, as I recall.

CHAIRMAN GRIFFON: Right. In fact it doesn't affect this claim because it's --

MR. HINNEFELD: Well this one is compensable so it is not going to change this one, but there are other claims that worked in accordance with this technique that might be affected.

DR. MAURO: You have a statistical one that goes to our coworker models --

MR. HINNEFELD: Yes. It's the one that Chmelynski wrote --

DR. MAURO: Harry's comments on --

MR. HINNEFELD: Harry Chmelynski wrote -- yes.

DR. MAURO: So this is more -- I mean if it's what I'm thinking it is, this is more procedural than it is for this case --

MR. HINNEFELD: Yes.

DR. MAURO: Or for this site. I think it's cross-cutting.

MR. HINNEFELD: Yes, I'm not so sure this technique was used other places. It depends on what kind of a data set you get, so I am not sure that the technique was used other places that would be -- if it was used other places --

CHAIRMAN GRIFFON: Well it only goes to Procedures if it is proceduralized.

MR. HINNEFELD: I believe it was. I'm not -- we'll have to go check but we have got some action on this.

CHAIRMAN GRIFFON: Yes. Yes. Okay.

MR. HINNEFELD: And it just has to be pulled out and it's probably -- this will be one of those resource-constrained findings, has been and will be because this is going to take a statistician on our side and we don't have very many of those either, so yes.

DR. ULSH: I've got it down as a NIOSH action item. The question is, it's not an issue for this claim necessarily but does it affect other claims?

MR. HINNEFELD: Okay, I'll need a little more than that to remember this. It relates to the statistics of coworker method on this claim.

CHAIRMAN GRIFFON: And this carries through the first four or so, right?

DR. ULSH: First four.

MR. HINNEFELD: All the findings on that? I don't recall --

CHAIRMAN GRIFFON: I think looking down --

MR. FARVER: It takes into account several of them, I'm not sure about --

MR. HINNEFELD: Oh well, the second one is a different finding. It has to do with, apparently --

DR. ULSH: Is the 149.2 the same thing?

MR. HINNEFELD: Well, maybe not, maybe not. We should take a look at it. To me --

CHAIRMAN GRIFFON: I'm not -- yes --

you may be right, that's a different issue, isn't it?

MR. HINNEFELD: Okay. Yes, this is a matter of -- if you let the finding the default values result in a substantial overestimate to this employee and it has to do with, I think, a one size fits all coworker model --

CHAIRMAN GRIFFON: Right. Right.

MR. HINNEFELD: As opposed to a tiered coworker model and we've discussed that in other venues and I believe that we are of the opinion that, if you start tiering them, the model, you know, how many tiers are you going to build? I mean, it's going to fall apart eventually because you can always find a subset of categories you've chosen and try to tier it again. And so I think that is where we have stood on this and again it won't affect this claim and it's kind of the standard practice, is to use a coworker model and then select the percentile points depending upon

the job description.

CHAIRMAN GRIFFON: You usually go with like three tiers, right? You usually go with $50^{th,}$ 95^{th} or environmental.

MR. HINNEFELD: I'm not sure if we've anything to do on --

DR. MAURO: If all it is, is the selection of the 95^{th} percentile when our judgment is -- this might not have been the nurse --

MR. HINNEFELD: Yes.

DR. MAURO: Is this the nurse?

MR. HINNEFELD: Yes.

DR. MAURO: Oh, I'll tell you, I know what this is. There was a person that worked at this facility, I forget, one of the AWEs who was a nurse and did not work on the operating floor, apparently, or not very much, and the assignment that she received for a dose was at the upper end, she ended up being exposed and I believe it was a skin cancer -

MR. HINNEFELD: I don't recall.

DR. MAURO: But in any event, in this -- I think our only concern was, I don't know if we had so much of a problem with the coworker model, it was more that whey would you assign this person such a high dose and compensate. You know that's of course a judgment.

MR. HINNEFELD: Right.

DR. MAURO: If that's the one I'm thinking --

MR. HINNEFELD: If that, I mean, we are kind damned if we do and damned if we don't.

DR. MAURO: I know.

MR. HINNEFELD: If we gave a nurse a lower one, she would say I was always responding to injuries out there, I would work -- I would go to visit the employees in the workplace as part of my job, you know, I didn't just sit in the dispensary all day.

DR. ULSH: So, this is one where the 95th -

DR. MAURO: I'm speculating based on the conversation, looking at the case, and I recall a case like that, where you really assigned a high dose. And the only reason I bring something like that up is if it was a person that on every -- on first blush anyway, very little -- that's the reason you created the other categories, just for a person like this --

MR. HINNEFELD: Yes.

DR. MAURO: And you didn't use it.

MR. HINNEFELD: Well, Brant, you should check and see how this one would have worked and kind of what the issues are here. I would think a nurse, even if she spent some time in the facility, would get a 50th percent --

DR. MAURO: Yes.

MR. HINNEFELD: Maybe she got that. I don't know.

CHAIRMAN GRIFFON: It sounds like she got a 90th -- but, well -

DR. MAURO: Any way to tell if this was an AWE from looking at it?

MR. FARVER: Oh, it was an AWE.

DR. MAURO: It was an AWE. I just don't want to --

MR. HINNEFELD: Yes.

DR. ULSH: I've got it as an action item for us, check to see whether the 95th should have been assigned or whether --

DR. MAURO: And it's not the Harry issue, then.

MR. HINNEFELD: No, one is.

DR. MAURO: Oh, one was. I'm sorry.

MR. HINNEFELD: The first one -- number three is sort of the same.

CHAIRMAN GRIFFON: Number two is the one we just discussed, right?

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: So that's the action you had, check on the 95th versus 50th, right? These are different. I'm sorry, I was trying to bundle them all in together but

they're slightly different issues.

DR. ULSH: It looks like 149.3, is that the same as number one?

MR. HINNEFELD: Same as one, has to be our response, refers to number one so I would say it is the same as one.

CHAIRMAN GRIFFON: I think it is, yes. Okay. What about 149.4?

MR. HINNEFELD: Well, that one looks to me like a global one having to do with localized data sources and it's not going to affect this claim I think maybe keeping it in a global. We had a conversation Friday about getting these global ones, we've got to put some urgency on settling global issues, so to me this looks like that.

MR. FARVER: This is the shallow dose?

MR. HINNEFELD: Shallow dose from localized sources.

CHAIRMAN GRIFFON: Right.

DR. MAURO: And it also goes to

OTIB-17, which is where it first came up, five years ago.

MR. HINNEFELD: Yes.

DR. ULSH: So I've got it remains a NIOSH action item. Do you want me to put something --

MR. HINNEFELD: Well I don't know that it is for claim. I think it's a global issue. I think it's a global issue. It --

CHAIRMAN GRIFFON: Does it go to Procedures or is it --

MR. HINNEFELD: Well --

CHAIRMAN GRIFFON: How do you, how do we --

MR. HINNEFELD: To me -- I think we had a conversation about this on Procedures and we felt like global issues usually should rightfully go to Procedures because Procedures deals with documents that theoretically affect more than one claim and so we had that discussion once and I think the global issues was going to go there. I almost think it needs

its own little piece of the database. But you know Procedures could be -- it could be managed just like the Procedures, you know, the same people, the same rights and all that stuff.

CHAIRMAN GRIFFON: But for the sake of my matrix here, I'm going to say transferred to Procedures Work Group.

MR. HINNEFELD: Okay with us, we'll keep track of it.

MR. KATZ: So that would be a good idea, to have a section of the database that's global issues that are not necessarily tied to a document.

MEMBER MUNN: Are we still talking about 17?

CHAIRMAN GRIFFON: I think it refers to TIB-17 still, yes. This is 149.4 finding, yes.

MEMBER MUNN: And my apologies, I made a valiant effort to bring up the database to look to see what it says is in Procedures

and unfortunately, I am not communicating with Citrix or vice versa -- properly.

MR. HINNEFELD: Put a question mark.

CHAIRMAN GRIFFON: How about 149.5?

MEMBER CLAWSON: That's part of the 95 percentile issue too --

CHAIRMAN GRIFFON: Yes, I see response 149.2.

MR. HINNEFELD: So the next two are --

CHAIRMAN GRIFFON: Right. Yes. Okay.

MR. KATZ: While they are mulling through things, Bob, are you on the line still?

MR. ALVAREZ: Yes, I am.

MR. KATZ: Are you awaiting a particular agenda item?

MR. ALVAREZ: No, no. I was just listening in. I'm not -- I'm actually supposed to participate tomorrow but I had my times screwed up so I was just listening in.

MR. KATZ: Okay.

MR. ALVAREZ: So anyway, I'm about to hang up in fact..

CHAIRMAN GRIFFON: Too exciting for you?

MR. KATZ: Bye bye Bob.

MR. HINNEFELD: Someone else just identified herself.

MR. KATZ: Yes someone else -- was someone else trying to speak to us?

(No response.)

MR. KATZ: Okay.

CHAIRMAN GRIFFON: All right. 150.1 is what I'm up to now. Scott, do you have this one down?

MR. SIEBERT: This is a Simonds Saw & Steel.

CHAIRMAN GRIFFON: Yes. It seemed like an AWE.

MR. HINNEFELD: Well, it could be like, we'll have some --

(Simultaneous speaking.)

CHAIRMAN GRIFFON: Yes. Right.

MR. HINNEFELD: Based on where we are now on research. We should be able to fill this in. There's one on the last one too. You want to make a note we've got something to do on it, though, which is provide a response in light of the Simonds ER.

MEMBER MUNN: One more time, which item is this? We're still on 51.

DR. ULSH: No, no. 150.1

MR. HINNEFELD: 150.1, yes.

MEMBER MUNN: Have you already gone two steps? No. And what we are saying today is?

DR. ULSH: NIOSH needs to provide a response in light of the Simonds Evaluation Report.

DR. MAURO: Yes, this could be -- I think it's very timely. You definitely wouldn't want some of these issues that are sort of floating to emerge while you are in the middle of the ER process.

MR. HINNEFELD: Well, ER is done

later. The main thing we are presenting on ER is going to -- you can position that with --

DR. MAURO: Yes. You'd like to be in a position to say yes, our ER deals with this.

CHAIRMAN GRIFFON: The next one I have, 150.2, I have being shifted to the Procedures.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: But it --

MR. HINNEFELD: You need to make sure that it gets caught there too.

CHAIRMAN GRIFFON: And this is ingestion, so this sounds like a global issue kind of thing, right?

DR. MAURO: Ingestion is a global issue with OTIB-9 and we have gone a long way to resolve that.

CHAIRMAN GRIFFON: Yes, it's OTIB-9, yes, so we'll follow it in Procedures, right.

DR. ULSH: But that's still a NIOSH action item?

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Yes. 151.1

MEMBER CLAWSON: This gets back to the one that we had, surface contamination.

DR. ULSH: Is that 149.4, is that where you were referring to, the earlier issue about --

MEMBER MUNN: Is that still the same issue as -- the same response in 150.1?

CHAIRMAN GRIFFON: I'm not sure.

MR. HINNEFELD: We would have to look at -- no it's not possible to know for sure because we would have to look at what was the basis for the initial starting level in each of the two situations, so --

MEMBER MUNN: So it's not covered in the previous one --

MR. HINNEFELD: No. I don't think so.

MEMBER CLAWSON: This one calls out that SC&A suggest using the --

MR. HINNEFELD: Yes, the specific reference, yes.

CHAIRMAN GRIFFON: Yes, the add later part.

DR. MAURO: We've received -- a lot of that has been resolved, in several places. The Adley report has to do with deposition, accumulation of services and we resolved that, the ingestion part of it. You know, once you have got it on the surface and now we are comfortable with the way you model it.

CHAIRMAN GRIFFON: It's just tying it together. Where did that come up in -- was it in 6000 Work Group?

DR. MAURO: 6000. Absolutely, yes.

MR. HINNEFELD: We'll get it from the 6000 --

CHAIRMAN GRIFFON: Check on the 6000.

DR. MAURO: They are all starting to get interconnected.

MR. HINNEFELD: Right, right, yes, a lot of these were done before 6000 was out there, so yes.

DR. ULSH: Tied to a 6000 Work Group?

MR. HINNEFELD: Yes.

DR. MAURO: Which has been resolved, which is interesting.

MR. HINNEFELD: We just need to get it on here.

DR. ULSH: Yes.

MR. HINNEFELD: Okay, if it's been resolved there, we just need to get the resolution on here. We provide administration support for the Advisory Board, that's our action.

DR. ULSH: All right, so we change the matrix? Is that what you are saying?

MR. HINNEFELD: What we'll do is we always add things to the matrix.

DR. ULSH: All right.

MR. HINNEFELD: We always add things to the matrix, and then the only thing we don't change is status.

DR. ULSH: Okay.

MR. FARVER: In our original report on that, related to that finding, it says, during the issue's closeout process related to Bethlehem Steel Site Profile review, NIOSH agreed to revise the methodology for deriving surface contamination. Since the claimant was denied compensation, NIOSH considered revising this DR with respect to the matter.

In other words what we are saying is the surface contamination issue has been resolved in general but you may want to go back and look at it for this case.

CHAIRMAN GRIFFON: Oh yes, this is a little different, yes. Yes. So don't lose sight of the end of this case on that, yes.

MEMBER CLAWSON: Well, this is the question that I brought up earlier, when we are going through and we are spot checking these, and we see an issue like this, and it may affect this case but how do we make sure that it checks other cases because there might be numerous ones that this would affect. It's

my understanding this is why we are doing these reviews and stuff like this, to assure that we are doing it right and if we have got a problem like this that is say site-wide or whatever, that we are going back and checking those. How do we --

DR. ULSH: Well, it seems -- well I'm going to take a shot Brad, it seems to me that when we change a document like a TBD or a TIB, isn't it our normal practice to do a PER to see which cases that might affect and go back and --

MR. HINNEFELD: That's what would happen.

DR. MAURO: I've seen that on Site Profiles. I haven't seen it on Procedures, you know, and the PER -- had there been any -- had there been procedures changes, generic, that triggered PERs? I'm not sure. There may have been.

MR. HINNEFELD: Well, the lymphoma one was not a Site Profile one.

DR. MAURO: Yes you're absolutely right.

DR. ULSH: And this is the -- if I understand correctly, this came up in the TBD-6000 Work Group, right? So if that were to change, then --

CHAIRMAN GRIFFON: It came up probably before that but I think it was handled in the TBD-6000.

MR. HINNEFELD: What we -- yes, what we need, what we need to find out, make sure we are doing here is you see some of these would have been done before TBD-6000 was done, so if in fact there is a change to these earlier techniques from TBD-6000 and the resolutions of TBD-6000 then we need to go back and see which of these -- which of these things done before TBD-6000, and there were a lot of individual Site Profiles written that were before TBD-6000, and we need to evaluate the change on those. Now we pretty much have a resolution on 6000, what does that change in

all these earlier approaches and so we can go back and change what needs to be changed in those earlier approaches.

So this is beyond the scope of our activities here. This is our scope, our programmatic scope back there in the office, is that we need to make sure that, though, we capture the TBD-6000 approach in AWEs or relevant sites that were done prior to the TBD-6000 being completed.

MEMBER CLAWSON: And I agree with you fully on that Stu, but what I was also going to ask Wanda, is that part of the TBD when we -- I'm not a part of that Procedures group. Is that something that, when we change this or we look in that, that it gets changed back? You know, if you have got numerous cases out there that were done before this TBD-6000 was put in, are we -- is there anything that we check out or is that more --

MR. HINNEFELD: What the Procedures Subcommittee does is it evaluates PERs.

MEMBER MUNN: It triggers NIOSH to do a PER.

MR. HINNEFELD: And they also evaluate PERs, not only the document, but they look at claims that were reworked under the PER or at least they are starting to. So yes, there is a loop back on that.

MEMBER CLAWSON: Okay. I just -- you know, we look at this and I just never see the loop back on so many of these and I -- it kind of seems like to me personally that it is kind of unfinished, because we don't see -- and I'm not saying that you are not doing it, it's just as a Work Group here we don't see that loop back.

MEMBER MUNN: Probably as a general rule of thumb, checking what the status of the PER is sometimes answers the question.

MR. KATZ: So Brad, you'll actually see the loop now because the Dose Reconstruction Subcommittee will do the selecting of the cases after they evaluate in

Procedures the PER.

MEMBER CLAWSON: Right.

MR. KATZ: The last step of that process is to select a set of dose reconstructions to validate it being implemented --

MEMBER CLAWSON: Okay,

MR. KATZ: And this Subcommittee will do the selection of those cases.

MEMBER CLAWSON: Okay, that -- I think I brought this up earlier, about a year or two ago, yes, that's what I was trying to get.

MEMBER MUNN: Yes, it took us a while to decide exactly how that group was going to work. I think we've got it.

CHAIRMAN GRIFFON: 151.2 is back to the ingestion model, that action stays the same is going to the Procedures Subcommittee, TIB-9.

DR. ULSH: So that's the same as finding 150.2, is that what you are saying?

CHAIRMAN GRIFFON: Same outcome, I think.

DR. ULSH: Okay, so what I had for 150.2 is that it was transferred to the Procedures Subcommittee. It's a global issue related to ingestion and that relates to OTIB-9.

CHAIRMAN GRIFFON: Yes.

DR. ULSH: And that remains a NIOSH action item. Is that what you want --

CHAIRMAN GRIFFON: I think the only difference in this one, the potential effect on this case is unclear still, right Doug? This is a less than 50 percentile one, right? So we may have to still consider --so, we should also keep that in the loop.

MEMBER MUNN: Savannah River Site.

CHAIRMAN GRIFFON: I think it's closed other than that action is going to the Savannah River Site, right?

MR. HINNEFELD: I believe so.

CHAIRMAN GRIFFON: Yes. Doug, you --

MR. FARVER: Yes, correct.

DR. ULSH: 151.2.

MR. HINNEFELD: 152.1.

DR. ULSH: And if what I see in the yellow action item is NIOSH will follow up on this case --

CHAIRMAN GRIFFON: And I think you did that on July 23, so I took that out of there. I believe, yes.

DR. ULSH: So there's no action item for NIOSH then?

DR. MAURO: I just had a thought. We are at a level of maturity in the process now where I think that all of the findings we have, with the hundreds if not before, can fall into one of two groups: one where there are quality issues, whereby they were supposed to follow a certain procedure, do this, that or the other thing according to procedure and it wasn't done and it has to be fixed, and that's specific to that case, because that case, that was something that was done that

shouldn't have been done that way, and everything else is transferred.

You see why I am saying that? Because everything else would be oh, we don't really care for the way you did this here, not because you did something wrong, it's because we don't like the Site Profile, we don't like OTIB-9. It all -

CHAIRMAN GRIFFON: If anything goes to Procedures it's --

DR. MAURO: So in a funny sort of way --

CHAIRMAN GRIFFON: Right, right.

DR. MAURO: I just had an idea that was one that might very well streamline this process. What I mean by that, is if somehow we can -- every single finding that we make, maybe this goes to us now, we could bin it, say this is something that is specific to this site because it is a -- I'll call it a quality issue for want of a better term -- because it applies to this case, because it wasn't

implemented the way you say you were going to implement it, and everything else goes some place else, right? Is there anything else?

MR. KATZ: Well, no, I mean I agree with your binning except that I think this Subcommittee needs to decide whether that goes somewhere else or whether they agree -- whether they agree or not, that that -

DR. MAURO: We can actually suggest it, where the home of this issue -- every issue that we raise, we could give it a home, a suggested home, and if it leaves here and you folks get to it, I can see you buzzing right through these things -- you know, listen, this is --

CHAIRMAN GRIFFON: The only piece you are missing is the loop back on the effectiveness of the overall, you know, NIOSH to get the right answers, I mean -- get the quality piece in but if you are -- referring it for resolution it is fine but then it has to somehow come back to say that we can look

at each individual case and see --

DR. MAURO: Oh yes -

CHAIRMAN GRIFFON: Once that disagreement was resolved, the outcome --

DR. MAURO: Oh yes, the loop is still there.

CHAIRMAN GRIFFON: Right, right, right.

MR. KATZ: But I think this Subcommittee has a first step, to decide that that is an issue that needs further resolution elsewhere, because you may review SC&A's review and say we don't agree with you --

CHAIRMAN GRIFFON: Yes, yes, yes.

(Simultaneous speaking.)

CHAIRMAN GRIFFON: Preliminary binning it, so to speak, and then we can decide, decide here and move it. Yes.

MR. KATZ: This Subcommittee --

MEMBER MUNN: Three of you are talking at the same time. I can't imagine what is going into the transcription.

MR. KATZ: Just every other word goes into it.

MEMBER PRESLEY: Who's going to keep up with this?

CHAIRMAN GRIFFON: Yes, it's got to be tracked on here.

MEMBER MUNN: It's got to be tracked here, yes.

CHAIRMAN GRIFFON: It's got to be tracked here.

MEMBER MUNN: From the 30,000 foot view, I think John is absolutely right, but in terms of what that still means for us in terms of tracking, it would -- we could approach it slightly differently but we would still have to do this one by one tracking, I think.

MR. FARVER: Well there's a finding coming up that doesn't exactly fit in. It has to do with -- on Savannah River reports, their external dose also has tritium in it, the and you'll subtract out the tritium, but the one finding we have here is that is not well-

documented. Now, that's not really a quality issue -

DR. MAURO: Yes, where do you put that?

MR. FARVER: It's not really give it to another Subcommittee, it's something that we have to discussed here and does that documentation need to be included somewhere.

MR. KATZ: Mike, were you trying to say something?

MEMBER RICHARDSON: This is David Richardson.

MR. KATZ: Oh, David.

MEMBER RICHARDSON: Yes, I think is a really -- it's, the point that John has raised sounds very much to me like the point that Brad raised and I was wondering, as a suggestion, if we would have a period of time, at the end of the meeting to kind of step back and look at the process. That would be useful for me, because I have had the same feeling about kind of stepping back and looking at

what -- what are the objectives of this what I would call Program Evaluation, how is it being used and do we want to think about how to design it in order to address issues like reproducibility and quality, and then procedural issues, and those seem to be the classes that John, that you were -- some of them need to be referred to procedural issues and other ones are specific to the program and implementation.

So, if we could talk about that at some point, it doesn't have to be in the middle of -- we are kind of in the middle of, right here, this eighth matrix, so maybe it's worthwhile to wrap this up.

But I think that's a -- for me that would be a useful discussion to have and help get me up to speed. Because there's a lot of -- a lot of this is very much looking at the specific trees and not looking at the forest and it seems like this is a bigger issue being raised.

CHAIRMAN GRIFFON: Right, right, right. I agree with that. Our first attempt to look at the forest was the first 100 cases report which we are still trying to bring to a close, but yes, we can discuss that a little later in the meeting if that's all right David.

MEMBER RICHARDSON: Right.

MEMBER MUNN: But, of course the real charter of the Dose Reconstruction Subcommittee is to look at the trees, okay? That's what we are here for, no?

DR. MAURO: Yes.

MEMBER RICHARDSON: I think it is -- okay, I mean we can go back to this, but it's a question of how this process is being used, for example by NIOSH in their 10-year Program Evaluation and are we -- can we think about tweaking the way we are doing things that would be helpful for the users of this evaluation. That would be how I would put this.

CHAIRMAN GRIFFON: Okay.

MEMBER MUNN: Always a good idea.

CHAIRMAN GRIFFON: All right, so where are we at? 152.2?

DR. ULSH: Well, I think 152.1, I had no NIOSH action on that one.

CHAIRMAN GRIFFON: Right. Right. Right.

DR. ULSH: That's all I had.

CHAIRMAN GRIFFON: That stands as closed, yes. 152.2 is nothing. I guess the next one I have is 152.4.

MR. FARVER: This was the finding I mentioned. It really doesn't fit into the --

CHAIRMAN GRIFFON: Oh yes. Yes.

MR. FARVER: Quality or Work Group category.

DR. MAURO: Is this a transparency issue, would you call it, in other words -- you can't figure out what's being done?

MEMBER CLAWSON: I thought this kind of like -- I don't know if this was showing

their works when --

DR. MAURO: Showing transparency.

MR. FARVER: Documenting it somewhere that this is how you're going to do it and this is how you do it.

DR. MAURO: I have to say that one of the things that has happened more recently, at least for me, is the workbooks that you had -- I mean it's not in the DR report.

MR. HINNEFELD: Right.

DR. MAURO: But when you get into the workbook, which is not an easy thing to do by the way, when you get into the workbook, we do have people that get very good at that; we are now able to tease that out a little better because the workbooks are there, and I think you are going toward that. In other words we have to go dive into the workbook and sort of tease it out and see what they did, or are you saying something different?

MR. FARVER: Well, I'm saying that it's not in the documentation that this is how

they are going to do it. A lot of times in the workbook, what they are doing is just basically what they said they were going to do in the TBD.

CHAIRMAN GRIFFON: In this case --

MR. FARVER: In this case, they do something in the workbook, but they don't describe it in the TBD, saying this is how they are going to do it.

DR. MAURO: Is it --

MR. FARVER: So you can't tell if it's correct or not.

DR. MAURO: Okay, is it -- I'm sorry -- but it is an interpretation? In other words, the workbook is basically a machine that implements some procedure in some very systematic way --

MR. FARVER: Yes.

DR. MAURO: Sometimes very complex. You are saying it goes beyond that, where there is a certain interpretation that is being applied?

MR. FARVER: No, it's doing calculations that are not in the documentation.

DR. MAURO: Documentation, but when you say documentation, you're saying not in the workbook --

MR. FARVER: TBD.

DR. MAURO: not in the, not in the -- oh, okay. It's not in the TBD either.

MR. FARVER: Right.

DR. MAURO: It's only in the workbook.

MR. FARVER: The TBD doesn't talk about subtracting --

DR. MAURO: Ahh.

MR. FARVER: The tritium doses --

DR. MAURO: Okay.

MR. FARVER: From the external doses.

DR. MAURO: This is an important -- yes, you see this is an important category.

MR. FARVER: So it's not that it's

wrong necessarily, it says show your work type of thing.

DR. MAURO: It's almost a supplement to a TBD. It happens to find its way into a workbook, this is how we are applying it here.

MR. FARVER: Yes.

DR. MAURO: Got you.

MEMBER MUNN: But instead of showing your work, show why you are doing this work really.

MR. FARVER: Yes, I mean if you are --

MEMBER CLAWSON: Well, I think what this -- if I can, Doug, I think where a lot of this came up numerous times is you guys have gone back and tried to reconstruct what was done with the blind ones, and we can't even come close to them because there's been things that have been done that aren't in the works for --

MR. FARVER: In the TBD -

MEMBER CLAWSON: and everything else

like that --

MR. FARVER: Procedures -

MEMBER CLAWSON: And the whole thing is, if you're going to do something like this, it should be able to be reconstructed very simply and done basically showing your work, just like in school, you can have a deal here and the answer but I want to see how you got that answer.

MR. FARVER: It's hard to tell if it's correct if you don't have something supporting it.

MEMBER MUNN: If you don't have the structure to begin with, yes.

MR. FARVER: This is why we do it this way.

DR. MAURO: If anything, it is when that's done, maybe this is the hard -- this is always going to happen. You owe it to every dose reconstruction, it's probably going to run into the situation of what do I do now, and you can't prescribe everything, and when,

I guess -- and you would never want to take a certain amount of judgment away from a person doing the job who is a professional at it. Just tell us your story. Tell us what you did.

MR. FARVER: This is a specific case with Savannah River records, the way they write up their records, they include their tritium on their external dosimetry program and that's how they monitor for tritium.

DR. MAURO: Yes, yes, that's how they build it, yes.

MR. FARVER: And so therefore they subtract out tritium from their external dose --

DR. MAURO: Okay.

MR. FARVER: and report it as tritium dose. All we are saying in this finding is, put that in the TBD somewhere saying this is how you want to --

(Simultaneous speaking.)

MR. KATZ: In addition to the TBD -

DR. ULSH: So this remains a NIOSH

action?

CHAIRMAN GRIFFON: Yes.

MR. SIEBERT: And this is Scott Siebert. Just to let you know, we do have that on our plate to put it in the next version of the Savannah River technical basis document. I'm looking at a draft right now and it's being addressed.

CHAIRMAN GRIFFON: Okay, the next one is the 152.6. Is that correct? Okay. 152.6.

MEMBER CLAWSON: I've got a question for Stu. You know I was just listening to what Scott said and I just -- you've got the changes coming out to that procedure so make this look back and so forth, like that, the next time that we come to this meeting or whatever else like that, this would be the conclusion of this, the profile is changed or whatever, correct?

CHAIRMAN GRIFFON: Yes.

MEMBER CLAWSON: And the time. Okay.

CHAIRMAN GRIFFON: Okay. 152.6. Is this the chooser approach versus the TIB-54? Is it two different approaches for the -- isn't that right?

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: The chooser approach was the earlier approach, right?

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Yes. So yes, I guess we are asking for a comparison of the older method with the newer method to see if it is still as conservative, right or whatever.

MR. HINNEFELD: Right.

CHAIRMAN GRIFFON: And I`m not sure what, but it sounds like this potentially had an effect on this case too, so I think it's a case-specific, you know, one as well. Yes. So that remains a NIOSH action item.

Okay 153.1. Some of these -- no I think this one is an example that NIOSH really hadn't done any work on this, so it remains a

NIOSH action item and I'm not going to add to it. The next two are that way, 153.2 as well.

153.6 was an SC&A action. Did you have that one Doug?

MR. FARVER: No.

(Simultaneous speaking.)

CHAIRMAN GRIFFON: Yes, yes. Sorry about that. Got to go on to my next page.

MR. HINNEFELD: So it's our action.

MEMBER MUNN: You know if the PER is down here or not?

CHAIRMAN GRIFFON: Yes, it's under PER review, it says, but I don't know, it might have been multiple PERs, right, that case, so I'm not sure Wanda. If this was Savannah River it would have fallen under --

MR. HINNEFELD: Well, it could have been Super S I think pretty much everything on Savannah River got reworked for Super S plutonium.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Now, these

particular findings don't relate to Super S plutonium. They relate to -- we are putting zeroes, not counting a film badge reading that is left not counting as a zero. That's what the finding relates to.

CHAIRMAN GRIFFON: Right.

(Simultaneous speaking.)

MR. HINNEFELD: Was done correctly.

CHAIRMAN GRIFFON: I think this was one of those ones that was very close so it could have potentially --

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: I think this was a close one.

MR. HINNEFELD: Could have been.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: I don't know.

CHAIRMAN GRIFFON: All right.

DR. ULSH: So 153.6, I have it as a NIOSH action item to review SC&A's --

CHAIRMAN GRIFFON: Yes, SC&A came back with that response at the last meeting

and then it's back in your court now. And let's see, 153.7, it looks like SC&A had a response at the last meeting. And the same thing, NIOSH will review. I mean, stop me if we need to -- any discussion on these items now or if you just haven't -- yes, okay. 153.8, oh that's the chooser approach again, the same.

MEMBER MUNN: That's a NIOSH action.

CHAIRMAN GRIFFON: The one that we had above, yes.

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: It's comparing of the old fission product approach versus TIB-54.

DR. ULSH: I didn't get that chooser part. Which earlier finding did that relate to?

CHAIRMAN GRIFFON: I'll have to go back. It was 152.6, it's the same thing. They're both Savannah River cases, yes. 154.1.

MEMBER MUNN: On NIOSH action. No

change.

CHAIRMAN GRIFFON: Yes, I'm not sure what the action there is though. They are going to review the nature of the error and how to prevent it in the future.

MR. SIEBERT: Actually -- this is Scott -- this one is pressed in the quality document that we are getting to later, this specific -

CHAIRMAN GRIFFON: That's what I was going to say. It sounds like a quality follow up, right? Yes.

MR. SIEBERT: So it is in there.

CHAIRMAN GRIFFON: Okay. 154.2 then looks like the same kind of thing, yes. So I'm leaving in those actions now, but I think, Scott, we are going to have some discussion on them.

DR. ULSH: Well, I'm putting both 154.1 and .2 remains a NIOSH action item addressed in that --

CHAIRMAN GRIFFON: Right, quality --

DR. ULSH: Assurance follow up.

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: The description here doesn't even show any difference between them.

CHAIRMAN GRIFFON: I know. That looks very close, didn't they?

MEMBER MUNN: Considering they are the first and the second.

MR. FARVER: One's recorded.

MR. HINNEFELD: One's recorded and missed.

CHAIRMAN GRIFFON: Oh, okay, recorded and missed. Very close. Same essential thing.

MEMBER MUNN: Okay. Two findings.

CHAIRMAN GRIFFON: 155.4. It's a matter of modifying the Site Profile. Is this still Savannah River, this case, 155?

MR. SIEBERT: Yes, it is.

CHAIRMAN GRIFFON: Has this been considered in the revision, Scott?

MEMBER MUNN: Why do we have all

these SRS -

CHAIRMAN GRIFFON: I know.

MR. FARVER: Somebody selected them.

MEMBER MUNN: I was absent that day.

CHAIRMAN GRIFFON: I don't think so, Wanda. Your attendance record has been pretty good.

MEMBER MUNN: You would have remembered it.

CHAIRMAN GRIFFON: I would have remembered that day.

MR. SIEBERT: I don't know if this is specifically being addressed in the revision or not.

CHAIRMAN GRIFFON: Okay. Maybe we can keep it as an action for you to look at that. So Site Profile revision question.

MEMBER MUNN: And the same OTIB-54 question we had earlier.

CHAIRMAN GRIFFON: Okay, 155.6. That's the same thing --

MEMBER MUNN: Yes.

DR. ULSH: Same as 155 --

CHAIRMAN GRIFFON: As we just had, yes. And then 155.7 is back to the chooser versus TIB-54 question. Several of these, they are all Savannah River so they are competing findings here.

156.1, SC&A gave us a response in July. And NIOSH -- yes. I think you needed to sort of look at SC&A's response, right, so it's back in NIOSH's court. This is a work location question, right?

MR. FARVER: No, this is whether you wore one TLD or two TLDs -

CHAIRMAN GRIFFON: Oh, okay. Okay.

MR. FARVER: a separate neutron dosimeter or just a TLD that had neutron --

CHAIRMAN GRIFFON: Oh yes, yes.

MR. FARVER: Capabilities.

CHAIRMAN GRIFFON: Was it whether, or whether he was required based on work locations or -- well, I guess it's all --

MR. FARVER: I guess if it's a

separate neutron dosimeter, then you would address like missed neutron dose and things like that, or unmonitored dose.

MR. HINNEFELD: Yes, the question whether the person was specifically monitored for neutron or they were just given a badge that happened to have a neutron badge in it, so even they didn't need monitored --

CHAIRMAN GRIFFON: Yes, yes. 156 -- oh no, no, these are all clear, sorry. I'm getting carried away. 156.5. This looks like another NIOSH follow up from --

MR. FARVER: It looks like the same.

MR. HINNEFELD: The same one --

CHAIRMAN GRIFFON: Yes. Oh, it's the same one, okay. Yes.

DR. ULSH: So the same as 156.1?

MR. HINNEFELD: I believe so, yes.

CHAIRMAN GRIFFON: Yes. We actually have a fair amount of non-yellow. I'm impressed.

MR. HINNEFELD: For 156.7 there's

nothing in here to do except it was transferred. We need to make sure that got done.

CHAIRMAN GRIFFON: Oh, okay, sorry, I didn't catch that.

MR. HINNEFELD: Well, there's no yellow on it, but it's a transfer and I thought we needed to make sure that got done.

CHAIRMAN GRIFFON: And I may have missed another one of -- or some other one of those, Stu, if you are keeping an eye out for those.

MR. HINNEFELD: I think that was the first one.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: The first one that didn't have any sort of highlight.

CHAIRMAN GRIFFON: 160.3 I see another transfer to Procedures Work Group, TIB-54.

MR. HINNEFELD: Okay, now there's no highlighting on 157.1 or .2 but I don't see

we've ever responded initially.

CHAIRMAN GRIFFON: 157?

MR. HINNEFELD: 157.1 or .2.

CHAIRMAN GRIFFON: Oh yes, it's probably because you didn't respond initially, though.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Yes, so you're right.

MR. HINNEFELD: 157.1 and .2 will need our initial response.

CHAIRMAN GRIFFON: Yes, obviously if they are blanks they, yes, we need a response. Sorry I should probably highlight the numbers on those.

DR. MAURO: That would be classified as open if this was a procedural review, right?

CHAIRMAN GRIFFON: Exactly. It would be open.

DR. ULSH: Don't skip over 160.3 when you get there --

CHAIRMAN GRIFFON: Right.

DR. ULSH: Because I didn't write down, what status you had.

CHAIRMAN GRIFFON: Yes. Yes. I'm there right now. 160.3. I have --

DR. ULSH: Transfer to somewhere?

CHAIRMAN GRIFFON: Transfer to Procedures Work Group, TIB-54 and the whole body counting results. And it says the case is currently being reworked. It must be a PER rework, or -- it doesn't say PER. Usually I say PER if it --

MR. HINNEFELD: It could have been return for additional cancer --

CHAIRMAN GRIFFON: Yes, yes.

MR. HINNEFELD: Or something.

CHAIRMAN GRIFFON: I'm sure Scott probably looked it up during the meeting for us, you know. Scott, do you know what site this is from?

MR. SIEBERT: Which number I'm sorry?

CHAIRMAN GRIFFON: 160.

MR. SIEBERT: 160 is Hanford.

CHAIRMAN GRIFFON: Hanford. That could be a PER rework, too, right, I guess.

MR. HINNEFELD: Could be. Could be --

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: Additional cancer --

CHAIRMAN GRIFFON: Yes, yes.

MR. HINNEFELD: Could be additional employment.

CHAIRMAN GRIFFON: Well, what does that mean to us, the case is being reworked. I have that in several of the others. Does that mean we are going to look at it again after the rework?

MR. HINNEFELD: Well, we haven't made that necessarily a part of the practice.

CHAIRMAN GRIFFON: I know, but I'm just looking at these responses, it says, NIOSH agrees and then it says the case is being reworked. So I don't know that -- is

that sufficiently closed out, I'm not sure.

MEMBER MUNN: Well, in this particular case, where it's transferred to Procedures and TIB-54, I have it on my list to check.

CHAIRMAN GRIFFON: Yes, I'm looking at 160.1 and .2, though, also. They say NIOSH agrees, the case is being reworked, NIOSH agrees, the case is being reworked. If -- I mean, I guess the only question would be, if they were reworked and it ended up affecting the outcome, I don't know what the PoC was originally, but you know, we would sort of want to know that if it was reworked and it had an effect on the outcome of the case.

MR. SIEBERT: Just a second here. It has been reworked. It's been approved. Give me a second. The rework was compensable barely.

CHAIRMAN GRIFFON: And what was it before the rework?

MR. HINNEFELD: Now you're asking a difficult question. That piece of information

is not really available anymore.

MR. SIEBERT: Less than that, how's that?

CHAIRMAN GRIFFON: I'm guessing it was, well -- I don't know. I don't want to guess.

MR. FARVER: It was less. It was 48.7.

CHAIRMAN GRIFFON: It was 48.7.

MR. HINNEFELD: Scott, do you know why it was reworked?

MR. SIEBERT: Let me look at the draft here real quick. Most likely Super S, but --

DR. MAURO: Lung cancer case?

MR. HINNEFELD: Wouldn't necessarily have to --

DR. MAURO: No? Super S?

MR. HINNEFELD: It could go up for something -- it could go up on --

DR. MAURO: Okay.

MR. HINNEFELD: The bioassay record,

when it ends, compared to when the person got cancer, things like that.

MR. SIEBERT: There was a change in employment and also they updated a Hanford TBD.

MR. HINNEFELD: Okay.

MEMBER MUNN: Photon dose is missing.

CHAIRMAN GRIFFON: So, it wasn't an additional cancer or anything, I mean that would be a --

MR. HINNEFELD: Additional employment can do it too.

CHAIRMAN GRIFFON: Additional employment can do it too, yes.

MR. KATZ: So unless you look at it, you can't really whether it's -- what you found here has to do with its change --

CHAIRMAN GRIFFON: Right. Exactly.

MR. KATZ: or whether it's other factors.

CHAIRMAN GRIFFON: Exactly. Exactly.

MR. HINNEFELD: Would you like us to do that?

CHAIRMAN GRIFFON: I think we need to, especially where it changed compensability, yes.

MR. HINNEFELD: We should just track down the history of this case and what has changed in -- what the key functions, what the key elements were of the change, and whether or not this procedures issue had an effect on it or not. It's going to take us a little but, I mean, we've got to go and look up some references to get the actual tracking number and then look at the history.

MEMBER RICHARDSON: So, Mark, for an issue like 160.1 or 160.2, there would be lots of examples of those sorts of things in this matrix, where there was perhaps a data entry error or omission, NIOSH would agree with that, and your concern here is just the statement afterwards that says the case is being reworked?

CHAIRMAN GRIFFON: Yes, my concern, and now, the added concern I guess is that it was reworked and a lot of times it's reworked and the compensation stays the same, you know, so we still would follow up as overall, sort of your forest idea, David is that we are looking at all these quality issues in that first 100 cases summary report to see what the significance is, and if NIOSH needs to modify from a programmatic level, but this issue, you know, has often been touched on in our follow ups in terms of well, you know, yes, small mistakes were made but they didn't affect the outcome. NIOSH got the right answer, you've made the right decision as far as compensability, so it's a lesser concern but where your -- where this did flip the compensation, we want to see if in fact it was these findings or if it was the additional employment or other issues that made that happen.

If it was other employment then

that's a factor outside of our review, you know, obviously, and NIOSH's control, you know, yes.

DR. MAURO: And teasing that out may be a difficult thing to do.

MEMBER CLAWSON: If the overall addressed in one rework it might be hard to -- we'll have to see, we'll just have to -- we'll look at it.

CHAIRMAN GRIFFON: We'll have the old version, though. Yes. We have to at least try to track it down, yes.

MR. HINNEFELD: Until we look at it we aren't going to be able to tell. It might be hard to tease out if several changes were made at once.

MR. FARVER: Although a lot of times, in the DR report, if it's been reworked it will say what the changes are.

MR. HINNEFELD: It's supposed to say that, as of some date, it's supposed to say what change in the rework.

MR. SIEBERT: Yes, the rework does state that there was a change of employment and in an update of the technical basis document, it was revised to reflect both those new information.

MR. HINNEFELD: Yes, there have been some -- as Hanford research has gone on, there's been additional -- there's been some stuff changed out there.

MR. KATZ: That would be outside of this factor as well.

MR. HINNEFELD: That was probably changed in response to the Hanford Work Group documents.

MR. KATZ: Right.

CHAIRMAN GRIFFON: Yes. It's difficult. I think we want to -- because this is one of the first ones where we have really had to look into the flip issue, so I think we want to at least pull and follow up on that.

DR. MAURO: Mark, is your concern, do you want -- when something does flip, and

there could be multiple factors at play when you do that, are you especially interested in knowing which -- when it's flipped because it was a rework for a PER or a rework for various reasons you describe, or it was a quality issue. Is that what you are concern was?

CHAIRMAN GRIFFON: Yes, I think we have to know why.

DR. MAURO: You want to know when it's a quality issue.

MR. FARVER: So, is that something you would like us to do, go back and look at this case as if it were, you know, they would submit the files to us, and we would look at those files and write up one of our reviews and then we do a comparison between the first review and the second review for selected cases? It's something to think about.

MEMBER CLAWSON: Well, this kind of comes back to how these changes were implemented and stuff, and my earlier question of you know, we say we are going to do these

changes and then we make the full circle I thought we were talking about.

MR. FARVER: So I believe this is going to come up in case 175, I think one of our actions is to review the reworked case.

CHAIRMAN GRIFFON: I guess my -- yes, I was just trying to think of a way to streamline this, but I guess my hope would be that NIOSH could take the first crack at it in terms of identifying what was changed, so you didn't have to review it as like a first, you know, cut through, and then SC&A can respond to whether they, you know, agree with that assessment. Does that make sense? I mean I think it's just a matter of identifying what changes -- I'm not sure.

DR. MAURO: I guess when we go through, when we do a Savannah River, it's simply to see did they follow, did they do it according to the rules and any finding we have is going to be because they didn't right? Or this other thing where they didn't explain it

so that we could really figure it out. Now, the overarching issues come in section 1.3 -- we have this section of every DR report where we list all of the generic findings that we had that applied to the Site Profile in the case of say Savannah River. I'm just trying to -- I don't know if there's anything -- and in theory, we are not in a position to say whether it flips or not, even though of course we could, but we don't. I think we have just gone some place where we haven't had this conversation before.

CHAIRMAN GRIFFON: No, I know, that's right.

DR. MAURO: And I'm -- it's not apparent if in fact you would like to achieve closure by saying okay, here's a case that we had a number of findings, two of them were quality, a couple of them are being transferred because it goes back to the Site Profile, so there's multiple issues at work that will drive this case and whether it's

going to be reworked, and whether it's going to flip. I've got to say, I think that this is another almost task that I don't think anyone has done before. I don't know, have you -- I mean we might identify the issues that were addressed, but saying which ones, you know, which ones were the -- was any single one the one that turned it, you know --

MR. HINNEFELD: I don't think we have ever done that. And in terms of whether you assign it us or to SC&A, we might not have resources to work on that.

DR. MAURO: And I don't think we were ever in that world. I'll tell you why, because this goes towards the question of flipping a PoC, running PoC calculations.

MEMBER RICHARDSON: Yes, my view would be that from a Program Evaluation Standpoint, kind of the question of whether a case is compensated and even whether there's a correction needed for a case is less important than the generic impact on -- so kind of a

compensation decision for a case depends in part upon the age at which the exposure occurred, the person's sex, their smoking history perhaps, lots of individual level kind of nuances which aren't really important to the kind of the generic process of how the dose was evaluated, and all those are going to be factors that weigh into whether this Probability of Causation flips. But what I think our objective is, and you can help me with this somewhat more, would be each of these findings, what's the impact in absolute terms on the dose. And you could have the dose estimate for the target organ for the compensation claim and maybe for a few other illustrative organs and see whether these findings are important for, in absolute terms, for the dose. Does that make sense?

MR. HINNEFELD: I think it would be doable to find, sort out for each finding, what's the impact on the dose.

CHAIRMAN GRIFFON: Yes, I think we

want to focus more on the dose. I agree. But then the only thing you might have to take out of the equation for comparison's sake is the change in employment, if --

MR. HINNEFELD: Yes, but I --

(Simultaneous speaking.)

MR. HINNEFELD: That would add or subtract, I mean, it could have been he worked -- he continued to work after the claim. It could have been something as simple as that.

CHAIRMAN GRIFFON: Right, right, right.

MR. HINNEFELD: He continued to work after he claimed and had another diagnosis later or something, although that would be an additional --

CHAIRMAN GRIFFON: That would be an additional cancer.

MR. HINNEFELD: Yes. It would stop at the diagnosis.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: Covered employment

stops at the diagnosis -- the relevant dose stops at the diagnosis.

CHAIRMAN GRIFFON: Unless you have additional employment that wasn't initially reported or -

MR. HINNEFELD: Could have gone back earlier, could have been a break that they found records for --

CHAIRMAN GRIFFON: Right. Right.

MR. HINNEFELD: Could have been a number of things, but I suspect it was something like that.

DR. MAURO: What you're really saying is listen, when -- at the end of this process, a decision is made, PoC determination is made, something is granted or is not, but that's not the end of the process. There's a whole lot of other things that will force you back to go back and look at these cases again. And out of that subset, out of that group, the universe of all of the cases that you go back and look at again, that have already been

adjudicated, some subset flips, may be very small, but some subset flips. And what you are really saying is some kind of diagnostic, global analysis needs to be done as almost like a root -- do we have a root cause for the one percent, the 0.1 percent that flipped, whatever the number is, because you've got a lot under your belt now -- 30,000? There is probably some number that you can go any day if they say okay, we have a couple of dozen flips, we have a hundred, we have a lot of flips, because of the -- high-fired alone probably could have done it and what I am hearing is somehow getting a diagnostic okay, what does this tell us about the program, where it may have had -- it's the flips that you are really interested in and why, and the root cause for why there was a flip, and it may turn out every one is very different, and maybe the smallest contribution may be quality where you didn't count zeroes, because I know we see that all the time and that changes

things in a small way.

The big ticket item -- there are some big ticket items also, and I don't know, right now, I don't -- do you folks have -- let's go back, collect everything that flipped and do an analysis and tell a story.

MR. HINNEFELD: We have not done that. I think the analysis will have to be done one by one. The additional complicating factor in this analysis will be that it is very possible that a portion, some part of that dose reconstruction technique changed for reasons other than additional data on the case or came out of this -- it may have been additional research done at the Site Profile, at the site. It changed the Site Profile and that technique changed for any cases and so this one came back, it had all the changes in it and doesn't matter, it won't -- so it may not be -- there may be changes and there may be counterbalancing changes, for instance a change from one arena might act in opposite in

terms of the magnitude of dose from a change that came up in another arena.

So that will be the complicating factor and each claim will have to be analyzed individually to make any kind of judgment. So I don't know where to --

MR. KATZ: Can I make a suggestion, just trying to tie this with what David just said, I mean when you do PERs you already know what flips as a result of PER, you don't need any work from this Subcommittee, because you get that when you do the PERs right?

MR. HINNEFELD: Yes, we know which ones change.

MR. KATZ: So those sort of circumstances you know and when employment is added or subtracted and these other -- or when another cancer, that's not really interesting either for this purpose, so really, here you are only interested in the findings here, what -- like David said, what was their dose significance versus whether they flipped a

case or not.

CHAIRMAN GRIFFON: Right, well it's all -- yes, I don't disagree with that, but the age of diagnosis isn't going to change, so all that stuff is the same as it was in the original case. But you are right, that and I think quite frankly the employment status, when that's -- when Scott said that, I'm thinking well maybe that added on another year that they hadn't originally accounted for, so I think you have to tease that out as well.

MR. HINNEFELD: Didn't hear you Scott.

MR. SIEBERT: It was an additional two years in the very early `50s.

CHAIRMAN GRIFFON: Right. So that may --

MR. FARVER: Well, my original thought, when I heard this, was when we write our reviews, we have our Table 1, where we look at their IREP table and we sum up these are the 30 to 250 keV photons, here's the

dose. And then the total dose. So now you have a new case, the reworked case, you'd start off with the same thing. And then, where those two are different, you say okay, why is that photon dose different and then you go back and say oh, it's page 62 of the revised TBD. Just something where you identify the differences.

CHAIRMAN GRIFFON: Well since this is our first experience with this, I think that might be a good idea, especially after what Stu said, which is that NIOSH is likely not to be able to prioritize this. Maybe it would be better if you took it with you to let SC&A have a first crack at it.

DR. ULSH: So 160.3.

CHAIRMAN GRIFFON: Is now an SC&A action.

DR. ULSH: To review the case.

CHAIRMAN GRIFFON: To review the follow up case, revised case.

MR. FARVER: Provide us with all the files.

CHAIRMAN GRIFFON: Yes, NIOSH will provide the files.

MR. HINNEFELD: Time to take care of my buddy Doug. I don't want him to get bored.

MR. FARVER: Don't worry, I'm going to assign this --

MR. HINNEFELD: Looking out for him, all right.

CHAIRMAN GRIFFON: That should bring us through 160 then.

MS. BEHLING: Mark.

CHAIRMAN GRIFFON: Yes.

MS. BEHLING: Excuse me, this is Kathy Behling. I just wanted to add something to this. It's a little bit of a side issue on reviewing this case but the reason I think we also may want to -- which would be a good idea to review this particular case, if we go back and look at findings, not only finding 160.3 but finding 160.1 and 160.2, I think we had talked about this before. When a case is being reworked, does that dose reconstructor always

see all of the findings associated with the specific case that we discuss during these Subcommittee meetings and I think by looking at this particular case, not only from the aspect of the OTIB-54, but we can also then look at, were the photon doses changed for 1952 and was that picked up, because I know that at previous Subcommittee meetings we had talked about how do we go about ensuring that that dose reconstructor knows that there is a finding on this particular case when he does this rework, and we had talked about perhaps putting a note in the file or something along those lines.

Reviewing this particular case would give us an opportunity to see if that is happening.

CHAIRMAN GRIFFON: No, that's a good point Kathy yes.

MR. FARVER: Katy, do you think Hans would like to work on this?

CHAIRMAN GRIFFON: Okay, we are up

to 161 and if it's okay with the group I am going to propose that we take a 10-minute break starting right now.

MR. KATZ: So we will start back up at eleven.

(Whereupon, the above-entitled matter went off the record at 10:47 a.m. and resumed at 11:02 a.m.)

MR. KATZ: We are reconvening after a short break, Dose Reconstruction Subcommittee. Mark.

CHAIRMAN GRIFFON: Okay. Starting back up with number 161. Still on the eighth matrix if you are just joining in, or if you left for a while. We are going to finish off with the eighth matrix, going through just to update our action items and it's probably a good idea that we did this because it is certainly refreshing all of our memories in the room here. So 161.1 looks okay. Up to 161.2. I think that's a pretty clear action for NIOSH. Oh wait a second, 7/23 it says this

is a QA concern, SC&A agrees that the reported incidents would not have affected the compensation decision. NIOSH will check to determine if the directive to include this in the DR report predates the assessment date for this case. So you have put a directive out, apparently, but it might have come after this case. Is that the idea?

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Yes, it falls in the QA category and it's a minor thing but it is worth looking at to see if the directive predated the case. Anything more on that one?

162.1. This says no further action but it was highlighted so I'm just going to make sure. Is that no further action?

MEMBER MUNN: We'll chuck old claims to prepaid. That predates the new Work Group.

CHAIRMAN GRIFFON: Yes. We were asking specifically whether this requires a PER review, right? That was the only action, yes. That still remains, I imagine, right? I

think.

MR. HINNEFELD: Yes, we should do some of that analysis.

CHAIRMAN GRIFFON: So this is the closing of the loop like Brant was talking about seeing if it affects other cases. All right. 162.2. Is this the same?

MEMBER MUNN: Yes, the same thing.

CHAIRMAN GRIFFON: Same thing, same sort of thing, yes. You okay? Next one I have is 162.9, and this is a more case-specific case about the solubility chosen to run the internal dose, I guess.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Scott, if you ever have the answer to these, you know, just let us know if you have looked at these and close them out.

MR. SIEBERT: Yes, I will.

CHAIRMAN GRIFFON: Okay.

MEMBER RICHARDSON: So is this one that would have a large impact on dose?

MR. HINNEFELD: Let me think for a minute.

MR. SIEBERT: Oh, I actually do have an answer on this one.

CHAIRMAN GRIFFON: I thought you might, see.

MR. SIEBERT: Yes.

CHAIRMAN GRIFFON: I was giving you the opening.

MR. SIEBERT: Thank you for the -- Yes, I dug on this right after last meeting and originally the dose reconstructor did use a Type F americium. However, the peer reviewer caught it and they were instructed to remove it from the claim, however one single IMBA file did not get removed from the claim. It should not have been submitted with it. It was not used in the actual assessment, but the previous version, and like I say one single file kind of slipped through. So that's what the issue was.

MR. HINNEFELD: Scott, did one --

did the M result in a higher organ dose, is that why it went to M?

MR. SIEBERT: Well no, M is the only --

MR. HINNEFELD: It's the only one?

MR. SIEBERT: Solubility type we use because that is the one represented by ICRP 68.

MR. HINNEFELD: Okay.

CHAIRMAN GRIFFON: So, it's odd that they ever would have looked at F. Yes.

MR. SIEBERT: I agree. that's why the peer reviewer said don't do that.

CHAIRMAN GRIFFON: Okay.

MEMBER MUNN: So, the whole description go on there or just check completed and say okay -- what are we saying?

CHAIRMAN GRIFFON: Well, I'm just capturing what he said, that the original DR used type F but it was caught on peer review and type M was used for the final dose reconstruction. And the question I would have

is that you said it was submitted and it shouldn't have been, but I would argue that it should. That's that show your work question, you know, if somebody was considering different options, but you are saying in this case, they should have been --

MR. HINNEFELD: They shouldn't --

CHAIRMAN GRIFFON: They shouldn't have even looked at it, okay. Okay. All right.

MR. FARVER: Really, yes, all references to type F should not have carried over.

CHAIRMAN GRIFFON: Right.

MR. FARVER: But they did and that's why it was confusing.

CHAIRMAN GRIFFON: But in some cases where you are considering what is the --

MR. HINNEFELD: If you are weighing two --

CHAIRMAN GRIFFON: What is the most conservative, yes --

MR. HINNEFELD: Yes, then you can

include both.

CHAIRMAN GRIFFON: Then you should show it all. Okay, I just wanted to be clear, yes, yes, okay. All right. So I don't think there's any further action if SC&A is comfortable with NIOSH's follow up, yes.

MR. FARVER: It sums it up there, the file wasn't -- one of the files was not included therefore we could not duplicate the doses, which was because of what went on, what Scott explained, I mean that explains it.

CHAIRMAN GRIFFON: Oh, okay.

MR. FARVER: It just, they didn't remove all the type F references. He said a file got through.

MR. KATZ: So this is a case where QA worked like it should.

CHAIRMAN GRIFFON: Yes.

DR. ULSH: Well, sort of.

MR. KATZ: Except for the part of that file, that the file wasn't used.

CHAIRMAN GRIFFON: Now, did you say

that you weren't able to review it because the file was not there for the type M or are you --

MR. FARVER: No, one was there and not the other.

CHAIRMAN GRIFFON: So you never did --

MR. FARVER: In other words --

CHAIRMAN GRIFFON: You didn't review the type F -

MR. FARVER: The type F was there -

CHAIRMAN GRIFFON: I mean, do you still need to follow up and review the type M, or?

MR. FARVER: It's probably okay, I mean I don't think that that dose was critical anyway.

CHAIRMAN GRIFFON: It wasn't that --

MR. SIEBERT: Doug's question, if I remember correctly, was it was never used in the write-up of the assessment, why is that dose there?

CHAIRMAN GRIFFON: Oh, okay.

MR. SIEBERT: And if it should have been, it should have been mentioned in the dose reconstruction.

MR. FARVER: Yes.

CHAIRMAN GRIFFON: All right. So I'll leave it as no further action. Okay?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Next one I have is 163.4. This looks like it is still in NIOSH's hands to review this, right?

MR. HINNEFELD: Looks that way.

CHAIRMAN GRIFFON: Used a different model, right?

MR. HINNEFELD: Yes, it has to be with the, essentially the surrogate, right, for -- yes, whether we picked the right number on the cable.

CHAIRMAN GRIFFON: Right, right, right. So it ends up being a --

(Simultaneous speaking.)

CHAIRMAN GRIFFON: We'll follow,

we'll close it out, I mean we will, you know, we need to close it out and --

MR. HINNEFELD: I don't think it was one of the ones selected on our thing there.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: So it would be something similar to that I guess, to close it out, or if we agree that these are appropriate responses --

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: That are still kind of up in the air we are still --

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Struggling with what exactly is required on these quality things, so.

CHAIRMAN GRIFFON: Okay, the next one I have is 165.1. I think that should say NIOSH will check to make sure the workbook, not Work Group has been updated. That's my typo. But I don't know if you have done this. This seems like something that should be a

fairly quick one. I don't know if you have had the opportunity though.

MR. HINNEFELD: I don't think we have anything to report.

CHAIRMAN GRIFFON: Yes, okay. So it remains an action. And the next one is also workbook. Yes. Definitely is. I need a peer reviewer.

All right. I'm on 165.3. I see it still in NIOSH's hands but I wanted to make sure we understand the issue.

MR. FARVER: It's a workbook calculation issue. They start off calculating it like you would expect and then they got through and divide by the bias of 1.6. When you divide by that, you don't overestimate the dose, you underestimate it.

MEMBER MUNN: Divide, and then multiply.

CHAIRMAN GRIFFON: Okay. Look at that. I cut and pasted that a lot of times. The next one Work Group should also be

workbook. I was moving fast, though.

MEMBER MUNN: And we know the Work Group is not ready.

CHAIRMAN GRIFFON: It might be both that need to be updated, right? So that was 165.4, and then 165.5. This refers to a later finding. Interesting. Refers to 168.4.

MR. FARVER: Yes, typically for medical doses, they have a 30 percent uncertainty. In the specific case of 165, they had a 20 percent not a 30 percent, okay, that shouldn't be there. So that was the specific --

CHAIRMAN GRIFFON: Yes, it's QA and then we had just to assure that it's not going to affect the outcome, right?

MR. FARVER: Then it relates to a later finding, 168.4.

CHAIRMAN GRIFFON: Was that also same --

MR. FARVER: The same type of --

CHAIRMAN GRIFFON: Okay.

MR. FARVER: Or similar.

CHAIRMAN GRIFFON: Yes. We are going to get to that in a second. All right. 166.5.

MEMBER MUNN: So, it's still a NIOSH action.

CHAIRMAN GRIFFON: Yes, that last one. And looks like this one also. So this is the -- just --

MEMBER MUNN: Just to make sure it was done.

CHAIRMAN GRIFFON: Yes. Determine if the X-rays were included, right?

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: The next one is the IREP versus the -- the IREP is not consistent with the DR, is that what you are saying?

MR. HINNEFELD: Tab W is the specific workbook.

CHAIRMAN GRIFFON: The tool, yes. So there's an inconsistency between the two and the big thing is to check to make sure --

MR. HINNEFELD: Right.

CHAIRMAN GRIFFON: It's not going to make a major difference but otherwise it's a QA thing. Then I'm down to 167.3, which is a long response there, but NIOSH will review further based on specifics of the job information and how it is outlined in TIB-7. TIB-7 is?

MR. FARVER: Shallow dose.

CHAIRMAN GRIFFON: Shallow dose, yes.

MR. FARVER: I believe.

MR. SIEBERT: It's assignment of neutrons at Savannah River Site.

CHAIRMAN GRIFFON: Oh, okay.

MEMBER MUNN: Carries over.

CHAIRMAN GRIFFON: Yes. Still a NIOSH action. Okay, 167.5.

MR. FARVER: Okay, that's our action. Specifically, it has to do with the Y-12 coworker dose and the CADW different versions. Version 4.03 I believe was used

originally to assess this case. It came up with one number. When we did our DR review, that CADW had been revised to a different version. So when our reviewer went in and looked at the numbers and plugged into the newer version, he came out with a slightly higher number. The version that he reviewed, it was 6.0, I didn't have access to it, I have access to 5.3 and 6.02 and if you put it in as a Y-12 coworker dose, in other words you select, up to the top, Y-12 as the site for the default, and you select use coworker values, and it will add the correct intake, that will give you one value, the value that was contained in the DR report through all the versions of the CADW that I could find.

However if you go and put in the intake of 7,054.4 dpm per day, and you put in a standard deviation of 3.77, just like it says, and this comes out of Table 5.1 of OTIB-29, which is the Y-12 coworker data, and if you put in those values from that table

manually, you come up with a slightly higher dose in all versions. Why?

MEMBER POSTON: What's slightly?

CHAIRMAN GRIFFON: I think he said 14 percent higher.

MR. FARVER: Fourteen percent difference. Now I don't know why because you are using the same standard deviation. You are using the same intake value, the same material to class -

MR. HINNEFELD: What was the table in --

MR. FARVER: Oh, 5-1.

MR. HINNEFELD: 5-1 in OTIB-29?

MR. FARVER: Yes. So that was perplexing. I could not resolve that.

MR. HINNEFELD: Did you find you runs showing the difference?

MR. FARVER: I did, but it's not conclusive from the run because the reviewer ran the version, he put in a standard deviation of 3.0, and I figure that's got to

be the difference. So, it wasn't, because I went in and ran it with 3.77 and it was still higher when you entered the intake manually as opposed to selecting the Y-12 coworker data, even though the intake is the same, the type is the same, the standard deviation is the same, the type of distribution is the same, log-normal. So I don't know what's going on behind there that has that little difference.

CHAIRMAN GRIFFON: Right.

MR. FARVER: That was all.

CHAIRMAN GRIFFON: That's it. But that could impact -- that's one of those global impacting things, yes, essentially.

MR. FARVER: You would expect those two runs to be the same but it's not dependent on version apparently, it's just how you enter the data.

CHAIRMAN GRIFFON: Coworker or manual, right?

MR. HINNEFELD: Okay now just so I'm straight here, and I'm not very familiar with

CADW, said that one of the options on CADW is to choose Y-12 coworker.

MR. FARVER: Yes.

MR. HINNEFELD: And it goes in everything automatically --

MR. FARVER: And it enters

MR. HINNEFELD: Gives you dose numbers.

MR. FARVER: Yes.

MR. HINNEFELD: Okay. Another option on CADW still --

MR. FARVER: Is you can enter the intake manually.

MR. HINNEFELD: Intake manually so many picocuries per day.

MR. FARVER: Yes.

MR. HINNEFELD: Okay.

MR. FARVER: And you can set the distribution type and you can set the standard deviation to whatever you want.

MR. HINNEFELD: And so you set those to be the same as what the coworker

distribution tells you if it is true --

MR. FARVER: Yes.

MR. HINNEFELD: And it comes out a little different.

MR. SIEBERT: Hey Doug, I assume -- this is Scott -- I assume that you ran it both ways and you are saying the difference is still there?

MR. FARVER: Yes.

MR. SIEBERT: Okay. It would be very helpful to us if we could have your runs for the comparison because we can compare it to our own as well and see if there is any other issue that we are not catching.

MR. FARVER: Okay. I just thought you could do the same thing and try it, enter it manually or enter it through Y-12 coworker.

MR. SIEBERT: Yes, I'm just trying to head off the fact of waiting until the next meeting if ours happen to come out identical.

MEMBER MUNN: Actually the action item was for SC&A to attach the kind of runs

that they completed.

MR. FARVER: Well, and when I did find them they really didn't show what I --

MEMBER MUNN: What you wanted to show.

MR. FARVER: Yes, because I thought the error was in the standard deviation --

MEMBER MUNN: Okay.

MR. FARVER: but it wasn't.

MEMBER MUNN: No.

MR. FARVER: So then I kept trying everything.

CHAIRMAN GRIFFON: Can you just provide those? Yes.

MR. FARVER: Yes, I can forward those to Scott.

CHAIRMAN GRIFFON: Okay.

MR. SIEBERT: Thank you.

MR. FARVER: I just thought it was interesting that it came down to just how you entered the data.

CHAIRMAN GRIFFON: Okay. All right.

So that remains an SC&A action, well it's kind of a combined, once you provide him the -- yes. NIOSH will review those.

MR. HINNEFELD: Right.

CHAIRMAN GRIFFON: Okay. Yes, I'll put that in there too, yes.

DR. MAURO: I'm sure we had this conversation once before but I'll do it again anyway. The whole idea of these tools and workbooks, I know one time when we reviewed procedures, one of the things we did review and were going to report on, it seems like for all intents and purposes, the procedures are no longer the -- where the action is. Where the action is, is the Work Group, is the workbook. And now the procedures always have a pedigree, I mean they have a written document, they are loaded, they are QC, they have a pedigree. The workbooks seem to be something that may or may not have a pedigree. Am I wrong?

MR. HINNEFELD: In what sense?

DR. MAURO: In the sense that it goes through the same formal QA, QC, because if that becomes effectively your procedure, it's sort of like, and that's fine, but that means it has to be -- have the same reliability and go through the same -- because that becomes your -- I noticed more and more that when we do our audits, we go right through the workbook --

MR. HINNEFELD: Yes.

DR. MAURO: We see what the inputs are, we see that they did -- and so in effect we were reviewing your work as against you workbook, as opposed to, well in your case you did both, you looked at the workbook and then you looked at the procedure and you did it by hand and -- I guess I'm just raising a question that, I know we had this conversation before, but if where all the action is, is the workbook and the tools, and it's turning the crank, there has to be some level of assurance that the quality and the reliability of those

workbooks are equivalent to the same treatment you give to procedures.

MR. HINNEFELD: Well, there is a quality process on the workbook.

DR. MAURO: On the workbooks themselves.

MR. HINNEFELD: Whether it is exactly the same process or not, I guess I wouldn't be prepared to say. For instance we sign off on TIBs that the contractor prepares. We don't necessarily sign off on workbooks, it is not clear to me if we sign off on the testing that they do for the workbooks, so it would be something that we should take down to -- I can make this special in something specific to a particular finding or something that we should evaluate that from our standpoint in terms of approvals of workbooks and those kinds of things.

CHAIRMAN GRIFFON: Yes, I guess I was just kind of reflecting on what John said. I think, I mean the way I have always thought

of it was that the procedures review was looking at the written procedures more than the workbooks, but then this process ends up diving into the workbooks because we are doing case by case so, you know, we are -- when we catch things that way we are, you know --

DR. MAURO: In a funny sort of way the conversation you just had really doesn't go toward this Work Group, I mean the Subcommittee, it really goes to the procedure --

CHAIRMAN GRIFFON: Right.

DR. MAURO: Because in effect, this is a procedure, and you are using this tool as a procedure like you would use any procedure so it's really adjunct, whether it's site specific or generic, it's an adjunct to a procedure that has a great deal of importance so that's what is being used.

CHAIRMAN GRIFFON: Well, that's something I've been --

DR. MAURO: I know.

CHAIRMAN GRIFFON: Yes --

DR. MAURO: I --

CHAIRMAN GRIFFON: That is something I have been for ages -- which is that these guidelines and things like that, or the workbook is where the action is as opposed to the --

DR. MAURO: And we did put a work product out several years ago where we did look at the generation of tools that were out there as adjuncts to the OTIBs.

CHAIRMAN GRIFFON: Yes.

DR. MAURO: And we put a report out so we never really got to it and also I recall that it was problematic. I'll tell you what happened then. It's all coming back now. You know, once we are given an authority to do some work and we go ahead and do it, all right, let's say it takes us some time to do it. By the time we are done, those workbooks evolved. You heard the rev numbers. Rev numbers doo doo doo, and all of a sudden we

are left, wait a minute, that doesn't count anymore, so where we ended up was we went through and put a product out which was really outdated by the time it went out and couldn't be checked or used or have any value. So we really -- and it was -- I wouldn't say it's a waste of time but what it did reveal is that, you know, if something is undergoing continuous evolution and improvements and refinements, we can't just step in and look at it. By the time we are done, it's meaningless. So we actually left that and Kathy, I think you know better. Am I characterizing this correctly, if you are listening in?

MS. BEHLING. Yes, I am. John, you are correct, yes, keep going. That's exactly what we did.

DR. MAURO: Now, yes, okay, and I don't know, where does that leave us? It means that we are in a situation, unfortunately, where the procedures are getting a great deal of attention, as Wanda could attest to, the

workbooks aren't. In a funny sort of way they really can't because they are undergoing evolution. Some of the changes may be substantive, some may just be convenience, I'm not sure, but --

MS. BEHLING: Although -- oh excuse me John.

DR. MAURO: Yes. Sure.

MS. BEHLING: This is Kathy. Although when we were reviewing the procedures, we also looked at the workbook at that time --

DR. MAURO: At that time.

MS. BEHLING: We just didn't -- rather than doing a separate report on looking at all of the workbooks, we decided while we were reviewing the procedures and the OTIBs, that we also look at the workbooks that --

DR. MAURO: And I remember that task and it was very early in this process. But now I'm hearing conversations regarding workbooks and you know, we just heard these revisions

and these changes and it's almost like I wanted to say, maybe it's time to have this conversation again.

MR. KATZ: But you're actually getting at that -- we discussed earlier a case where the workbook reflected later work than the TBD and the resolution was elaborate the TBD to reflect what is new in the workbook. So if you're getting at that --

CHAIRMAN GRIFFON: And the only other way we would get at it I think is to try to select cases that are newer cases that are more recent so we are getting more recent revisions. But you are right. We are always going to be a few steps behind perhaps, but we will have to look at the way it's designed. We have to look at things at a point in time, right?

Okay, I am going to move on unless there's any other insights on that. 168.4, is that where we left off?

This refers back to 165.5 Doug,

like you said, is that -

MR. FARVER: Yes.

CHAIRMAN GRIFFON: So that's related to that medical dose question.

MR. FARVER: Yes, this is another one where they do not multiply by the 30 percent or add the 30 percent or our finding was rung out of a Technical Basis Document that, for actual dose calculations, reconstructors should assume the normal distribution in an uncertainty of plus or minus 30 percent. Reconstructors should only use the positive uncertainty and multiply the doses by a factor of 1.3 to include uncertainty. In this case they did do that so that's why we wrote the finding.

CHAIRMAN GRIFFON: And it the case that NIOSH agrees but the one thing it doesn't say there, it says you're going to look at the section of the TBD but it doesn't say whether this could have potentially affected the outcome of the case.

MR. FARVER: Well, initially it came back and said it is a should statement and we don't have to do and --

CHAIRMAN GRIFFON: Well, I'm looking at the --

MR. SIEBERT: Well, that is -- this is Scott. That's true, the way the TBD should have been written was that you have the 30 percent normal distribution, which is your best estimate, or you can use as an overestimating assumption a factor of 1.3 which is just taking into account the high end of the uncertainty. It's just one sentence was written a little obviously unclearly so that's what needed to be updated in the TBD. It would have been in conflict with other direction we have on medical X-ray doses so we all know that you don't apply both of those. It's just the TBD was not written as clearly as it should have been.

CHAIRMAN GRIFFON: So you are saying that the dose for this case doesn't have to be

adjusted at all -

MR. SIEBERT: Correct.

CHAIRMAN GRIFFON: It's just TBD to be reworded to be consistent with your other -- with your practices. Okay.

MR. SIEBERT: Correct.

MR. FARVER: Consistent with procedure.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Was it 61?

DR. MAURO: Sixty -- oh for X-rays. I guess what I heard is I recalled checking and sometimes you used the normal plus or minus 30 percent, which is the standard, or you take the dose and you multiply by 1.3. There was an option. Wasn't that an option?

MR. FARVER: I think it is in the procedure.

MR. SIEBERT: Earlier on in the project we would use that option. We have determined that basically we are just going to use normal. Let's use them all as a best

estimate because it doesn't really save us any time either way.

DR. MAURO: And what happened here?

MR. SIEBERT: This one used the best estimate method of normal distribution, 30 percent, which is correct. It did not deal with a factor of 1.3.

MR. FARVER: It had different wording in the Technical Basis.

MR. SIEBERT: Correct.

DR. MAURO: So it did arrive.

MR. FARVER: Correct.

DR. MAURO: It did arrive, okay.

MR. FARVER: It's just the documentation was -- not consistent with what they did.

DR. ULSH: What was the other document that it's supposed to be consistent with? Procedure something?

MR. FARVER: It was 60 or 61.

DR. MAURO: There's two X-ray procedures. One is OTIB-6 and the other one is

either 60 or 61.

MR. FARVER: Okay. I'm not sure which one it was not consistent with.

MR. HINNEFELD: The one on medical X-rays.

MR. FARVER: They all blend together.

CHAIRMAN GRIFFON: All right. 168.5. This was you action, Doug.

MR. FARVER: Oh, okay. Let me see what it is. I looked at this. Okay. We'll come back to this in a couple of minutes.

CHAIRMAN GRIFFON: Want to come back after -- I'll put it down, we can come back to it.

MR. FARVER: We are going to find the file.

CHAIRMAN GRIFFON: All right.

MR. FARVER: I looked this up and I did something and I just have to find where it's at.

CHAIRMAN GRIFFON: Okay. I'll move

ahead and we can come back to that one. 168.7, NIOSH will investigate further. Usually when I say investigate it's about worker placement, right? Yes. It said T building, potential exposure in the T building.

So it's a question of assigning plutonium dose for someone that was in the T building. Is that sort of the -- I think that's the gist of it.

MR. HINNEFELD: Yes. First you had a termination bioassay.

CHAIRMAN GRIFFON: Right. So I guess it's really a question of where they were working.

MR. HINNEFELD: Were they plutonium exposed or not?

CHAIRMAN GRIFFON: Right, right, right, yes, we don't need to get into the specifics. 169.1.

MR. SIEBERT: I believe this is the same 30 percent --

CHAIRMAN GRIFFON: I see it. I see

it at the bottom. Okay. So that's the same question of correcting that --

MR. SIEBERT: Yes.

CHAIRMAN GRIFFON: TIB-60 or procedure 60, 61, whatever it is -- not correcting that but correcting the TBD to be consistent with that, right?

MR. SIEBERT: And it's procedure 61.

DR. MAURO: It is 61. Okay.

CHAIRMAN GRIFFON: There you go Brant. Okay. I am down to 170.2. Is this a worker location question again? It's about the same neutron issues.

It's a question I think of whether to assign the neutron exposures, is that correct, based on job?

So you assign neutrons over a certain time period but not over others and it's unclear to SC&A, yes. That remains a NIOSH action, correct?

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Okay. Down to

171.4.

MR. HINNEFELD: Yes, it looks like 171, two or three, it doesn't look like we've submitted -

CHAIRMAN GRIFFON: Oh, they're blank, I'm sorry, yes. Thanks for catching that. 71.2 and 3 have no responses yet so and 171.4 looks like the assignment question again I think. Oh no, maybe not. Sorry. This is an internal coworker question, internal coworker model question.

I think this is a question of which model was selected over what time periods, right Stu? I think sometimes you used environmental --

MR. HINNEFELD: Yes, well this looks to me like an exposed versus non-exposed question, where, you know, you say the -- at some period of time -- yes, they used environmentally and weren't exposed so you used environmental and they're saying we're not so sure based on the guidance you have in

your Technical Documents. It looks like this case should have been considered exposed and I'm guessing we're saying we're going to investigate this further.

CHAIRMAN GRIFFON: Yes. And I like 171.5. I'm laughing because I'm not sure what the heck, I think I forgot what organ it was so I had a placeholder in there.

MEMBER MUNN: Well, whatever it is, it is not a question of --

CHAIRMAN GRIFFON: Something is organ, not solubility, solubility tests were not evaluated. It's not so clear to me what is meant by that.

MR. FARVER: If you look in the NIOSH response, they refer to a specific file and they are saying the xxx is the type of organ -- it's the type of -- yes, it's the type of organ and the core concern is the solubility.

CHAIRMAN GRIFFON: Oh, okay.

MR. FARVER: So --

MR. SIEBERT: I'm going to see if I can pull up that file real quick.

CHAIRMAN GRIFFON: So you concern, Doug, was that they didn't look at the different solubilities to see which was going to be the worst case, or --

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Okay. I'll just jot that down. If Scott finds something on it, we can come back.

171.6.

MEMBER MUNN: NIOSH follow up to find out how close one building was to where the incident occurred.

CHAIRMAN GRIFFON: Oh, yes, this is the incident, right?

MEMBER MUNN: Yes.

MR. SIEBERT: I apologize, it's going to take me a little while to get to that file because we have reworked the case since then so I can't track it down right now.

MR. HINNEFELD: Okay.

CHAIRMAN GRIFFON: That's 171, okay.

DR. ULSH: I might have this totally wrong, but 171.6 has to do with how close two buildings were to each other. Is that the one that we sent out information on that --

MR. FARVER: That's correct, yes.

DR. ULSH: Yes. I don't know if that changes the status or not, but --

MR. FARVER: But, yes, we do have an --

(Simultaneous speaking.)

CHAIRMAN GRIFFON: So NIOSH did send a response.

MR. FARVER: 3019 in relation to 3022.

CHAIRMAN GRIFFON: Right.

MR. FARVER: And I think they're in pretty close.

CHAIRMAN GRIFFON: Incident at 3019, right, right.

MR. FARVER: Because 3022 is no longer around.

DR. ULSH: So the way it reads right now is NIOSH will follow up to determine the location of the building 3022 in proximity to 3019. It sounds like Dr. Poston has already sent out information like that. So is that status still appropriate or do we have some other action item or --

CHAIRMAN GRIFFON: Did you look at -

MR. HINNEFELD: Well, our additional action is to then interpret from that whether we agree with the finding or not --

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: Whether we agree with the finding or --

CHAIRMAN GRIFFON: That was sort of a sub-action.

MR. HINNEFELD: That was the first action.

CHAIRMAN GRIFFON: Now that you know the proximity, does it impact the -- yes. So this person is saying they were in 3022 during this incident but that wasn't --

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: They were in 3022 during the incident.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Right. But that wasn't considered in their dose reconstruction so now you should look at that. Yes.

Okay. Now we go to a new color here. This is Tab 171. The case is reevaluated and remains non-compensable. No further action. Just going to get rid of that blue on there. Anyway.

173.2. So NIOSH agreed with the original finding, SC&A accepts the response and then the question is did it affect the case. In the same with 173.3.

MR. SIEBERT: I'm checking.

CHAIRMAN GRIFFON: Okay. Let's see 173.5 I have a more open-ended NIOSH follow up. Oh no, wait -- yes. Kind of a NIOSH will follow up on SC&A's response. So this is a justification for not assigning the ambient

doses.

MR. SIEBERT: We do not have -- we were never returned this claim through rework so we would have to do all this offline as we have done in the past and this one hasn't been done yet so I'll put that down on the list to do.

CHAIRMAN GRIFFON: Okay. So we're up on 174.1 unless Doug, do you have anything back on those others ones that I have on hold over here?

MR. FARVER: It was just that one --

CHAIRMAN GRIFFON: 168.5, is that the one?

MR. FARVER: Yes. I cannot find a -- we'll say a spreadsheet in the files, in the worker's files, that calculates the doses that are in the IREP table. In other words the IREP table will give you one dose that we reference in our document, but I cannot find any supporting calculations how they came up with that number. So I can't tell if it's a

workbook error or not because I can't tell how they came up with that number. Now, I believe we suspected they used a different dose conversion factor and that's what we put in our finding. We say we believe they did it this way using this dose conversion factor and came up with the number in that manner. Let me get you some specifics real quick. Has to do with -- oh, whether they used the dose conversion factor for ambient dose equivalent or the dose conversion factor for deep dose equivalent.

CHAIRMAN GRIFFON: Right.

MR. FARVER: That's what it was. So although we can't find a worksheet that shows how they calculated it, if you go through the process and put in the value for deep dose equivalent you come up with their value that's in their IREP table. I could not find a spreadsheet in their files that showed how the calculation occurs.

CHAIRMAN GRIFFON: So this -- when

this says -- when the NIOSH response originally says here DCF should have been used rather than SC&A's suggestion of H10 organ dose DCF. Was that your suggestion or was that your feeling that that was what they had used? If you read the original response, I'm a little confused. My understanding of what you are saying is that when you have plugged in the H10 organ dose DCFs, you got the number that they --

MR. FARVER: Yes.

CHAIRMAN GRIFFON: reported.

MR. FARVER: Correct.

CHAIRMAN GRIFFON: But that wasn't your suggestion to use that.

MR. FARVER: No, that's what we believe they did.

CHAIRMAN GRIFFON: They did. Right. But you are thinking that was wrong to do that. It should have been the ambient.

MR. FARVER: It should have been the ambient dose conversion factor.

CHAIRMAN GRIFFON: Right. So that's misstated a little bit, I think. You see what I'm saying, in that first line of the response? Rather than SC&A's belief that that was it. In other words you weren't suggesting to use that. You believe that's what they did, right?

MR. FARVER: I believe that's what they did because that's how -- you come up with the same value if you do it that way and I do not have any documentation supporting their calculations otherwise. In other words we don't have the calculations on how they did it. I couldn't find them.

MR. HINNEFELD: So here, the issue here appears to be that our response mischaracterizes the finding.

CHAIRMAN GRIFFON: Yes, I think so. Yes. And we didn't catch that earlier, but --

DR. MAURO: At the risk of showing my ignorance, what's the difference between Hp(10) and ambient?

MR. HINNEFELD: Well, it's the ambient I believe is exposure. It depends on how you measure. Hp(10) is absorbed dose of 10 and --

DR. MAURO: I never understood that.

MR. HINNEFELD: What we said is exposure to organ dose conversion. But there is an ambient dose conversion.

DR. MAURO: Yes, I know there's a --

MR. HINNEFELD: Yes, that one confuses me all the time too. I have to get Tim to explain it to me again.

DR. MAURO: Okay, so you're in the same boat I am.

MR. HINNEFELD: It's wrapped up I think in some ICR units --

DR. MAURO: I think it is too. I have run across it and I think -- is Hans on the line?

CHAIRMAN GRIFFON: And from a value --

MR. HINNEFELD: Don't ask Hans these

questions or we won't get to lunch.

(Laughter.)

CHAIRMAN GRIFFON: From a value standpoint --

MR. HINNEFELD: I mean we found out the difference in dose conversion factors on the ambient dose, I mean this is probably almost nothing.

CHAIRMAN GRIFFON: Right. Yes.

MR. HINNEFELD: You know, in terms of quantitative numbers.

CHAIRMAN GRIFFON: That's what I was pointing out, yes. I'm not sure how to bring this to a closure though.

MR. HINNEFELD: Let's see if we can't reword our response somehow. This goes on and on and on and I don't know --

CHAIRMAN GRIFFON: Yes, I mean, if you agree that is what it has done, but it impacts the case very minimally, then we can close it --

MR. HINNEFELD: I think we can just

stop it there, you know, correct the characterization of the response and stop.

CHAIRMAN GRIFFON: Yes. Okay.

MR. FARVER: Yes, it just goes back to how the ambient doses were calculated.

DR. ULSH: Makes sense. 168.5. Mark, I kind of lost track there before we went to that issue. On 171.6 I've got that Dr. Poston sent out information and NIOSH has to consider that new information. That's the status of that one.

MR. HINNEFELD: About proximity of building -- just about proximity of buildings --

CHAIRMAN GRIFFON: Yes. About proximity of buildings. I said --

MR. HINNEFELD: Trying to remember what it --

CHAIRMAN GRIFFON: That's what I had.

MR. HINNEFELD: I mean we can dig this down I guess, we'll have to look at the

notes with the matrix in front of us.

CHAIRMAN GRIFFON: And then I said NIOSH will consider the impact on the internal dose. I think that was the question really, right?

MR. FARVER: From the accident?

MR. HINNEFELD: From the accident.

DR. ULSH: Okay. Then 173.2. I have that remains a NIOSH action item, right?

CHAIRMAN GRIFFON: Yes.

DR. ULSH: Same with 173.3 and .5?

CHAIRMAN GRIFFON: They are both the same, yes, all three of those.

MR. HINNEFELD: Well, I would characterize .5 a little differently.

CHAIRMAN GRIFFON: All right.

MR. HINNEFELD: Two and three are a specific question -

CHAIRMAN GRIFFON: Yes, two and three are --

MR. HINNEFELD: Just change the compensability of the claim. That is a

specific question. Five's action is a little different. It says we will review our response. It is our action but it's a somewhat different action.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: So if you are just writing remains a NIOSH action --

CHAIRMAN GRIFFON: I'm sorry. Yes, yes, yes.

MR. HINNEFELD: If you are just writing remains a NIOSH action, then we will refer back to this, then you can just write remains a NIOSH action.

CHAIRMAN GRIFFON: Well, what I'm doing on the matrices when I don't change anything, I'm leaving them as the 723 action highlighted.

MR. HINNEFELD: Yes. Yes.

CHAIRMAN GRIFFON: So I'm not changing the words at all.

MR. HINNEFELD: Perfect.

CHAIRMAN GRIFFON: Yes, so this --

those first two, like Stu said, you are really checking just to see -- you are in agreement with the finding, you are just going to check and see if it affected the compensability. The other one is --

MR. HINNEFELD: The other one is something about our response, checking if our response really speaks to the question or something.

CHAIRMAN GRIFFON: And NIOSH will review the SC&A response I think, right? Oh no, review your own response.

MR. HINNEFELD: I think it's our own response --

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: I'm not sure we understood our own response, how it related to the finding.

CHAIRMAN GRIFFON: Right, review, I'll put that, review the original NIOSH response. Review their own response.

DR. ULSH: Now I have written down

174.1 but I don't have anything after that.

CHAIRMAN GRIFFON: No, we just got there.

DR. ULSH: Okay. Good.

CHAIRMAN GRIFFON: That's where I left off I think. Okay.

MEMBER MUNN: One question is clear.

MR. HINNEFELD: It remains our action. You can figure out what it is from reading, I mean as long as --

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: We are just going to --

CHAIRMAN GRIFFON: That's pretty clear.

MR. HINNEFELD: Going to pull out the matrix along with our action list, we'll be able to figure out what our action is. We don't have to be so complete, I'm sorry --

CHAIRMAN GRIFFON: That one's pretty clear, I think.

MR. HINNEFELD: I get cross when I

get stressed.

MEMBER MUNN: Oh, let's not do that.

MR. HINNEFELD: I'm stressed by getting ready for the Board meeting. Not quite as bad as Laura yet. It might come to that.

MEMBER MUNN: In time.

CHAIRMAN GRIFFON: All right, I'm just -- well I'm not sure when to cut this off, but we are almost through this matrix but I've said that before. 175.1. This is SC&A. Oh well actually I'm not sure if it's been reworked yet so -- no this is the one that we said you review the rework.

MR. FARVER: To review the rework.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: I don't have the rework.

CHAIRMAN GRIFFON: Okay. So NIOSH will have to provide the reworked case, right? So this is two that we are going to have kind of these reworked cases to see how this evolves.

MR. FARVER: Well I mentioned that earlier, that we have this later on coming up and --

CHAIRMAN GRIFFON: Was this just to give me a -- just to get my bearings on this -- was it a close case, was it a close 50th percentile? Scott, do you have that information on 175?

MR. SIEBERT: I don't have it immediately available.

CHAIRMAN GRIFFON: That's all right.

MS. BEHLING: It's 27 percent.

CHAIRMAN GRIFFON: Twenty-seven percent.

MEMBER MUNN: Not a cliffhanger in any case.

CHAIRMAN GRIFFON: Right. Well I think we still want to follow up on the case regarding the findings, right, to see if they were -- yes.

MR. FARVER: Oh this is where additional records came in afterwards --

CHAIRMAN GRIFFON: Oh, okay.

MR. FARVER: after the DR had been completed.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: I believe.

MR. SIEBERT: This is finding -- claim 175 or findings for 175, right?

CHAIRMAN GRIFFON: Yes.

MR. SIEBERT: The rework pulled it down to 15 percent PoC so --

MR. HINNEFELD: So the rework is done?

MR. SIEBERT: Yes.

MR. HINNEFELD: Doug, you can just pull everything off NOCTS.

MR. FARVER: Okay.

MR. HINNEFELD: Do you have the claim tracking number? We can provide you, if you don't have it, we can provide it, once you have it you can find everything about the rework in NOCTS.

MR. FARVER: Okay. I'm pretty sure I

don't have that.

MR. HINNEFELD: Okay. Okay. So we need to give him a copy.

CHAIRMAN GRIFFON: All right, and this may answer these other ones too, I'm not sure. Yes. I think these are going to carry through for 175.2 at least and 175.3. Bear with me. I'm just going to copy and paste my -- okay. So, 176.1 has nothing. I'm up to, oh the attachments, ah, the attachments. John, this is where you come in.

DR. MAURO: Yes, we went through all those.

CHAIRMAN GRIFFON: Yes.

DR. MAURO: I gave my little story on each one and I think we left it at that.

CHAIRMAN GRIFFON: Let's look at finding number one. Let's see. Yes, these look like they -- do you have a separate document tracking these findings?

DR. MAURO: Yes -- well, on the tracking system?

CHAIRMAN GRIFFON: Here's my suggestion. Why don't we take up the attachments after lunch, right?

MEMBER MUNN: Excellent suggestion.

CHAIRMAN GRIFFON: Attachment one is Bridgeport Brass. I know we treated -- I know SC&A provided a separate document when we were talking about them but I thought I tracked the findings in here. I think the reason that Bridgeport has a 3/22 date in the matrix is because we had done that in the meeting before and then we picked up on the next one in July --

DR. MAURO: We did, we actually went through --

CHAIRMAN GRIFFON: Right. But I think these findings -- these actions still stand for NIOSH. I'm not sure, but -- let's come back to it, yes.

MR. HINNEFELD: Yes, these are essentially AWE Site Profiles.

DR. MAURO: Yes. These are Site

Profile readings.

CHAIRMAN GRIFFON: Exactly, they are, right, right. Which is these are these mini-reviews that we said we would handle here so. Why don't we pick up on those after lunch?

MR. HINNEFELD: I don't think we have provided anything.

CHAIRMAN GRIFFON: You don't think there's anything new on those but don't go through them. We go through them.

MR. HINNEFELD: I don't think we are going to make it through the rest of the -- I think there's three attachments.

DR. MAURO: Yes there's three of them.

CHAIRMAN GRIFFON: So this might be a good breakpoint anyway and we can come back and knock that off.

Okay so let's take a break until one o'clock Eastern Time. We'll reconvene, finishing the eighth matrix, and then pick up on -- what did I say I was going to do right

after lunch -- the QA. The QA.

MR. HINNEFELD: We can do some selection on 14 if you want.

CHAIRMAN GRIFFON: And selection and we want to cover David's question about the overarching --

Okay. So one o'clock guys.

(Whereupon, the above-entitled matter went off the record at 12:02 p.m. and resumed at 1:01 p.m.)

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

1:01 p.m.

MR. KATZ: Sounds like someone is working very hard on their computer right now. We are picking up someone keypadding like crazy. So this is the Advisory Board on Radiation and Worker Health, Dose Reconstruction Subcommittee. We are reconvening after lunch. Let me just check and make sure we have our Board Members on the line. David and Mike.

MEMBER GIBSON: Yes, Ted, it's Mike. I'm here.

MR. KATZ: Great.

MEMBER GIBSON: And it's sure not me typing that fast.

MR. KATZ: David, are you with us again too?

CHAIRMAN GRIFFON: Well, he'll probably join.

MR. KATZ: Okay.

CHAIRMAN GRIFFON: So we --

MR. KATZ: Yes, we can continue.

CHAIRMAN GRIFFON: All right, we're continuing on with the eighth matrix and we are going to pick back up on attachment one but before we go there, Brant said that he had some follow up from one of the earlier items so we will go back to that.

DR. ULSH: Yes, this message was waiting on me when I came back from lunch. It's from Liz Brackett, and it relates to item 167, one -- well, 167.5. It's the one where Doug, you were putting in the input manually what the coworker --

MR. FARVER: Okay.

DR. ULSH: I'm about to forward this message to you and to Wanda and to Brad because you are the ones that have CDC email accounts. I don't.

CHAIRMAN GRIFFON: Does that have to be CDC or can that go to my other government email? I don't know what the restrictions are.

MEMBER CLAWSON: It can't go to DOE

ones?

MR. HINNEFELD: The issue is protection and transit of the information because it has to go out to the internet and then back in from the internet to the other government system.

CHAIRMAN GRIFFON: That's fine. Anyway, go ahead and describe it yes.

DR. ULSH: I'll just read the message that Liz sent.

CHAIRMAN GRIFFON: Yes.

DR. ULSH: It says the CADW difference that Doug was talking about for this case (Y-12 coworker coded values versus manual entry) is because the coworker intake rate changes at the end of April 1952. The CADW entries list only the intake rate on January 1 of a year but the calculations will account for the change during the year. It looks like Doug used the January through April rate for the entire year when running it manually, which would overestimate the total

dose because the intake rate decreases from 7,054.4 dpm per day to 1,844.4 dpm per day on May 1.

MR. FARVER: It's true. It does. It's just not apparent from that entry, in other words it doesn't show it as a variable in the intake. It shows it as an intake over the entire period.

DR. MAURO: In the workbook

MR. FARVER: Yes.

DR. MAURO: Okay.

MR. FARVER: Now we understand what it's doing.

MEMBER MUNN: Just wasn't obvious to the reader.

MR. FARVER: Yes.

DR. ULSH: So I don't know if that changes the status on that item or you want to take it back and consider it or what.

MR. FARVER: I mean that's probably the reason. In my mind it's closed.

CHAIRMAN GRIFFON: Yes, yes, yes, I

think it's closed.

MR. FARVER: I would say that if you manually entered them and did it through the correct time periods and changed the intake accordingly, you should come up with the same value.

DR. ULSH: So, leave 167.5 closed?

CHAIRMAN GRIFFON: I just want to make sure I get that response to capture in here, though, and send it to my -- send it to my CDC and I'll get it but --

DR. ULSH: Okay.

MR. KATZ: Mark has a CDC account. He's just locked out of it.

CHAIRMAN GRIFFON: I just haven't been in it.

MR. HINNEFELD: We'll figure out what to do, talk to the computer guy and see if there's something we can do.

CHAIRMAN GRIFFON: Okay now I'm going to un-highlight that and then we can go on to attachment one and pick things up from

there. Okay. So attachment one, Bridgeport Brass Site, the mini Site Profile reviews, and these are all outstanding actions from 3/22 so Stu basically I think you're right that if you still have these as actions. I'm not going to modify anything unless you see anything that needs clarification if you are looking at them.

MEMBER MUNN: They all look like the same response except that Mark Griffon needs additional time to consider the approach of attachment two, finding three.

CHAIRMAN GRIFFON: Oh, I'm on attachment one still. All right. So now Wanda's moving ahead to Harshaw which is attachment two and yes, it seems like, Stu or Brant, stop me if you have anything on these but otherwise I'm going to start on these -- the same action and then apparently I have an action in here too, Wanda is reminding me.

MEMBER MUNN: Just a small needle.

CHAIRMAN GRIFFON: Which one was it?

Attachment --

MEMBER MUNN: Three I believe. Attachment two, number three, finding three.

CHAIRMAN GRIFFON: Oh okay. Yes, and I just to stick with the theme here today, I didn't do that action either, so. But I still would want to look at that and we haven't closed the rest of the profile so I don't feel so bad.

MEMBER MUNN: No.

CHAIRMAN GRIFFON: But I will remember to do that. It's a radon surrogate model.

MR. HINNEFELD: That would be the Class for Harshaw?

DR. MAURO: Yes.

MR. HINNEFELD: Harshaw Class?

CHAIRMAN GRIFFON: Was the Harshaw Class -- it wasn't the whole period though, in there?

DR. MAURO: No, no, it's not.

CHAIRMAN GRIFFON: So this still

applies.

DR. MAURO: Yes, I'd have to look at it, see what the cutoff is.

CHAIRMAN GRIFFON: Yes. Yes.

MR. HINNEFELD: I'll have to go look.

CHAIRMAN GRIFFON: But the surrogate model, you might recall John, what it was based on?

DR. MAURO: I'd have to look at it.

MR. HINNEFELD: You'd have to look back.

CHAIRMAN GRIFFON: Okay. Five, one action, got that. Okay. Yes I think the rest, they're the same. Going up to attachment three is the Huntington plant. So far I see much the same. Now this finding number four, I don't know if that's a general question also. This is the issue of BZAs versus general area air sampling. Was that a site-specific finding or was it also just overall?

DR. MAURO: You know, I didn't -- we

--

CHAIRMAN GRIFFON: I noticed that this has come up on several things, right?

DR. MAURO: It could be a general statement where the correlation between breathing zone and bioassay but I don't think so.

CHAIRMAN GRIFFON: I guess I would just remind, when in doubt, go back to the original report from SC&A because I -- the description is not doing it justice.

MEMBER MUNN: The wording of the finding there looks like it's a general one.

CHAIRMAN GRIFFON: Yes, that's what I was thinking when I saw it, you know?

DR. MAURO: These are abbreviated in the matrix. I'd have to look at it to see what the heart of it was. Most of these, though, are very, what I would say, fundamental. That is you know this is how you did it and I have a question that's almost a common sense kind of question, gee that doesn't seem to make

sense here, and once you guys dive into it, I think you are going to find it easy to track and either agree or not agree you know, it's not going to be anything subtle.

CHAIRMAN GRIFFON: But see a lot of these -- well you have more information now, but a lot of these, well all of these I guess, have no initial NIOSH response either, do they, or did you respond in the other context?

MR. HINNEFELD: See, I'm trying to decide because some of these indicated that -- we would almost conclude from some of these that we sent a response.

DR. MAURO: You probably did on the case. Remember, we do two things. We have actual real cases where we reviewed the case and I wouldn't be at all surprised if a lot of the issues that we discussed in the previous set, you know, the set of -- previously there were certainly Harshaw cases. They were Bridgeport Brass cases. And they are all based on the Site Profile, so it's a logical step

and I wouldn't be at all surprised if we have already discussed a lot of the issues, so that's where they come from.

CHAIRMAN GRIFFON: Yes, that's where they came from. That's why we added this on.

DR. MAURO: Right. Yes. But what I tried to do here is --

CHAIRMAN GRIFFON: They are tagged back to the first -- I think it's the first cases listed in the matrix, right.

DR. MAURO: And maybe before. What I tried to do here is broaden it because you have to realize, when we do a case, when I do a case for say Bridgeport Brass, it is a particular organ, a particular person, it may have been in one of the facilities, remember, I think at Bridgeport Brass there was a couple of them, Havens facility, and another one, Adrian Plant, I think.

And so what happens is when I do a real case, it really does a disservice to call the -- and even though when I do the case I

have to review the Site Profile. So I'm like a lot of -- the Site Profile is the rock that most of these AWE cases stand on. But when I review the case, I only review the Site Profile to the extent I need to review it, for that case.

So the reason Mark asked -- we had a lot of cases from Bridgeport Brass you know, et cetera, and he said listen, and you know, and they are slipping -- we are not doing them in Site Profiles. So let's see what we can do here. That's how the genesis of this was.

So then what I did was when I reviewed this -- I would not consider it a full-blown Site Profile by any means. But I try to cover the waterfront on all of the external, the internal, how -- where the data came from, the validity of the data.

Now for example there are no interviews. We didn't do any data capture the way we do with -- so it's really an abbreviated Site Profile, where I use my

judgment on what I am going to look at, because I thought this was important.

CHAIRMAN GRIFFON: Yes, it's a little more of a drill down into some of the basis of some of these things.

DR. MAURO: Yes, does it ring true?

CHAIRMAN GRIFFON: Right.

DR. MAURO: I have a few -- still have to come back to me, some of the examples, but when you fine folks jump into it you're going to find it's something you are going to be able to move through pretty quickly. You are going to either say yes he's right or no he's wrong.

MR. HINNEFELD: I believe we actually have some responses out for a couple of these.

CHAIRMAN GRIFFON: Right. That's what I am -- yes.

MR. HINNEFELD: And we can put them in the matrix.

CHAIRMAN GRIFFON: If you do, what I

was going to say, why don't you email me the responses and then I can cut and paste because otherwise we are going to have two versions of the matrix --

MR. HINNEFELD: Sounds great.

CHAIRMAN GRIFFON: Going on.

MR. HINNEFELD: Even better.

MS. BEHLING: Excuse me, Mark, this is Kathy Behling. I do have some notes on attachment one which was the Bridgeport Brass and I believe, based on what I have written here, that NIOSH initially did respond to our findings on January 26, 2009 and then we wrote a White Paper thereafter and I know Hans and Harry Chmelynski had presented a response to their initial response at the 3/22, the March 22 meeting, 2010.

So if NIOSH wants to go back, January 26 we hear an initial response and then we discuss it again back on 3/22, 2010.

CHAIRMAN GRIFFON: And this is for --

MS. BEHLING: For Bridgeport Brass, attachment one.

CHAIRMAN GRIFFON: I also see something here in my folder, says draft response to SC&A, comments on Harshaw TBD. So that would be -

MR. HINNEFELD: That's what we sent -- that would be what I have.

CHAIRMAN GRIFFON: So, there's other --

MR. HINNEFELD: So that's a Harshaw and there's some for Bridgeport.

CHAIRMAN GRIFFON: Right. Right. So with -- yes that's fine. If I could ask you Stu to boil these down --

MR. HINNEFELD: Oh okay.

CHAIRMAN GRIFFON: Well, I have them. Maybe I can try to summarize in the matrix.

MR. HINNEFELD: I think there's kind of a response paragraph in there.

CHAIRMAN GRIFFON: There is. I just

don't want it to be this long.

MR. HINNEFELD: Yes, we've done those on others.

CHAIRMAN GRIFFON: I know, I know. All right. I'll try to -- I'll take it. I've got the one for Harshaw. I'm not sure I have the one that Kathy is referencing.

MR. HINNEFELD: Yes, I can send it. I'll send it to you.

CHAIRMAN GRIFFON: What's the title of that?

MR. HINNEFELD: The title of that one is --

CHAIRMAN GRIFFON: Is it eighth matrix Bridgeport Brass TBD? Maybe I do have it.

MR. HINNEFELD: Yes, that's what it was. Eighth case matrix Bridgeport Brass.

CHAIRMAN GRIFFON: Okay, so you just pulled out that part of the matrix. So I have that. So I'll roll that all together.

MR. HINNEFELD: Yes, all right. And

then the Harshaw actually has the finding and then a paragraph --

CHAIRMAN GRIFFON: That's more of a written report, right, right, not a matrix. Okay. I'll pull those together into the set and then you can -- so.

MEMBER MUNN: All that November stuff.

CHAIRMAN GRIFFON: The actions remain the same. I'll just clean up the matrix to reflect the work that has been done already.

MEMBER MUNN: And the White Paper.

CHAIRMAN GRIFFON: What's the other thing you have on there?

MEMBER MUNN: The White Paper, it was a part of the zip file that came with Bridgeport and the first 20 cases.

CHAIRMAN GRIFFON: Oh is that White Paper Harshaw TBD review?

MEMBER MUNN: I have it sent in November last year. It's a 28-page White

Paper.

CHAIRMAN GRIFFON: And that is for Harshaw, right?

MEMBER MUNN: Harshaw.

CHAIRMAN GRIFFON: Is that the SC&A?

MEMBER MUNN: SC&A.

CHAIRMAN GRIFFON: Yes, yes, yes. So that's the SC&A review --

MEMBER MUNN: Right.

CHAIRMAN GRIFFON: which you call the White Paper for some reason in this case. And they also sent a Bridgeport review.

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Okay.

DR. ULSH: So for those two, we have provided initial responses and SC&A has responded to those so now it's back in our court.

CHAIRMAN GRIFFON: Right.

DR. ULSH: And then for the --

CHAIRMAN GRIFFON: I'll put your initial responses into the big matrix.

DR. ULSH: Okay.

CHAIRMAN GRIFFON: Right.

DR. ULSH: And then for the others we have not yet provided an initial response.

CHAIRMAN GRIFFON: I don't see any, unless you know of any.

MR. HINNEFELD: I only know of those two -

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Bridgeport Brass and Harshaw.

CHAIRMAN GRIFFON: Right, so I think for the other Huntington and -- Huntington, yes, there's only three.

DR. ULSH: So, it was Huntington, attachment three?

CHAIRMAN GRIFFON: Yes. That should do it. And all the actions remain the same I think. Anything else on that?

Okay I think we can move on to the other items on the schedule. I have the discussion of the Quality Assurance

objectives, selecting the 14th set of cases as the next two things.

So I just -- I actually, you probably emailed this a while ago but I obviously -- so people on the phone have a copy of this?

MR. HINNEFELD: Mike and David will not. We didn't have an email -

MR. KATZ: Yes, we don't have a CDC email for them.

MR. HINNEFELD: I was concerned about the Privacy Act issue on this because we didn't look through it -- I don't think there's any Privacy Act issue but we don't know for sure. We haven't had it reviewed.

CHAIRMAN GRIFFON: Well, we are not going to read it into the record or anything --

MR. HINNEFELD: No, I mean, we can talk about it but in terms of sending it to non-government emails --

CHAIRMAN GRIFFON: I got it.

MR. HINNEFELD: So I couldn't -- we didn't send that. Now the actual selection list, that was -- we don't have to worry about Privacy Act because that has been vetted many times in that form, so that, we don't --

CHAIRMAN GRIFFON: Do you have that, did you get a chance to --

MR. HINNEFELD: Let me think back, now that I'm thinking about that, let me go do that now. See what they --

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: I did not --

CHAIRMAN GRIFFON: You need to --

MR. KATZ: How many copies --

CHAIRMAN GRIFFON: For this discussion that was what I was wondering, yes --

MR. HINNEFELD: Yes, I should probably be here for the discussion.

MR. KATZ: Let me take care of that.

CHAIRMAN GRIFFON: Mike and David, I don't know if you have joined us yet, again.

David, is --

MEMBER GIBSON: Yes, I'm here Mark.

CHAIRMAN GRIFFON: Oh, hi. Mike. That's Mike. Okay. So this is -- so as you heard, you won't be looking at this document. We just got it. I just got it today. This is the NIOSH review of the QA issues from the claims reviewed by SC&A so from those first -- it was a little over 100. I think we went to a bigger set of cases, right Stu?

MR. HINNEFELD: Actually, there was a set of 100.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: Then there was a smaller set that we did our --

CHAIRMAN GRIFFON: But I thought you picked it initially from a larger subset of 150 -- it went through the eighth set I thought.

MR. FARVER: 110 or something, yes, it might have been gone through the eighth set.

CHAIRMAN GRIFFON: Yes, yes, because we expanded it so we had more to pick from, basically. Anyway it is all those QA findings, SC&A selected some that we wanted to sort of track back to see what the sort of root cause was of why these mistakes were made and NIOSH did a -- and this is an initial cut at that, is that what --

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: So I'll let Stu describe it, yes.

MR. HINNEFELD: Let me give you a little pedigree on this. We haven't had this very long and so we didn't really vet it much. But because we wanted to get it to the Subcommittee for the purposes of discussion and checking out expectations. Now I have hardly, to be honest with you, hardly looked at it. There is supposed to be in here some sort of discussion of what would you do to prevent this in the future and I'm not -- you know, some of these may not lend themselves to

that very well, but there is supposed to be some sort of thing like that in here.

In any case, whenever you start down this pathway of doing a deficiency report and then a disposition report, one of the things you have to worry about is if I do this, is the amount of effort it would take me to put a system in place to prevent this error worth saving errors of this sort?

So that's going to have to be part of the decision as well. We haven't really gone very far down that path. It's a sort of a -- an evolving thing and so this, chances are, will be part of a broader, quality assurance question, which is probably going to get handed to us as part of the 10-year program review anyway.

So it's going to be part of -- it's sort of an early effort, a work that we expect to be evolving as we go forward. So that's kind of the background here. And we have not, in the office, vetted it very thoroughly and

so we made sure we put a disclaimer on it about this being a draft document or a working document. We didn't put a draft watermark on it or anything, but it's still fairly preliminary.

If you would like I can start through these.

CHAIRMAN GRIFFON: Yes, I wouldn't mind -- well, either that or --

MR. HINNEFELD: Well, I think it might be helpful -

CHAIRMAN GRIFFON: Yes. Maybe --

MR. HINNEFELD: The first finding is that an error was made in the data entry for an IMBA run which grossly overestimated the internal alpha dose and this had to do with the TBD stated annual intake of uranium, is what the intake is, is 1,400 picocuries per year. But there were two mistakes apparently in entering. One was an order of magnitude too high in the number and then choosing picocuries per day as the entry instead of

picocuries per year and so it's just a huge, huge overestimate.

Now you would think you would see that, you would think you would notice that, you know, the dose reconstructor would make it, or the peer reviewer wouldn't it, and this just says, well, it was a mistake and the DR shouldn't have made the mistake. He knew better, or she knew better, and the peer reviewer should have caught it.

The peer reviewer's instructions do not specifically say make sure the IMBA intake value is correct. It doesn't say that line on the review procedure where it tells the peer reviewer what to do, but it does say make sure the tools are checked, all tools in the assessment, of which IMBA would be one.

So again, it's a matter of probably a careless mistake on the part of the dose reconstructor and perhaps a mistake because of time constraints on the part of the peer reviewer. I think to really go much further

it's going to take a little more discussion on our side. I don't know that the Board needs to talk about it that much, but it's going to be more a discussion on our side about are we expecting too much of somebody.

Well, I mean you could go further down this path. Did the dose reconstructor, did they know how to use IMBA well enough? Were they accomplished enough in IMBA or did the part of units per day is just part of using IMBA that they were unfamiliar with and just didn't check off, change from the default.

That's one -- I mean, you can examine further the knowledge of the dose reconstructor and you can examine further the specificity of instruction to the dose reconstructor and to the peer reviewer. I'm not sure there's a lot of ground to go there, a lot of gain to be made in that. Doug, I don't know what you would think about something like that?

MR. FARVER: Oh, my concern is why wasn't it caught --

MR. HINNEFELD: Yes.

MR. FARVER: And how can you catch it in the future, would be the only thing.

CHAIRMAN GRIFFON: Especially when it appears to me this would be a -- it's a big overestimate, right?

MR. HINNEFELD: It's not just a tiny --

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: And the problem here is, you know, this one was in the high direction. What happens if somebody makes the same mistake in the low direction?

CHAIRMAN GRIFFON: Right, right.

MR. HINNEFELD: You know, that's the problem.

MR. FARVER: You know, the one thing that comes to mind is -- I don't know what the DR report says but it actually say that it is supposed to be 1,400 picocuries per year, then

someone reviewing the DR report should review the actual calculation and say oh, it's not picocuries per year at all, it's off by a factor of 10. You know, if that value is actually in the DR report which it may or may not be. That way it could be caught.

DR. MAURO: One of the things that happens when you go to a tool. You see, you are building a machine that's trying to put I don't know how many a week, trying to move these things out. I have the luxury to sit back and think about what is it that they are doing here. And it is a luxury. So I'm trying to get to a root cause thing, what do you do to fix something like this?

There is the machine that is going in check, check, check, check, check, check, but then there's this other thing where you have to say well, does this make sense and that's what I do. I just ask myself. I don't go into these workbooks the way a lot of our crew does. I do something different. It

doesn't take long when you ask yourself -- this is a classic problem that may not be caught when you are inside the machinery. It's caught when you are not, you know, I'm just giving you an observation.

So one of the things I guess I think is very important, whenever we do our work and you are in the same boat we are in, is you have got to sort of step outside of the thing and ask yourself some common sense questions about what -- does it look like it makes sense? And that's not easy to do yet. Anyway, I don't know if that helps.

CHAIRMAN GRIFFON: Well, that did have -- I mean from my new job, I tend to think that just blaming -- not blaming, but just pointing out that the worker made an error isn't really getting at the root of the problem. Right.

MR. HINNEFELD: I agree. I was taught the same thing.

CHAIRMAN GRIFFON: So the question

then is like, you know, because I can see a situation where not only is the -- you said inside the machinery but also the peer reviewers may have so many peer reviews to do, that you know, because I'm thinking well how could -- like Doug, how could this get through the layers, you know, you have sort of these layers to sort of catch those mistakes or catch those or if the first dose reconstructor doesn't flag it then the peer review will.

MR. HINNEFELD: This is the reason I think that this needs really individual discussion from our side and the ORAU people who do these things about what exactly, because it's not clear to me what exactly the peer reviewers see.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Not clear to me the peer reviewer sees a finished dose reconstruction report, with the verbiage in it and everything. So to me there's a lot more knowledge of the intricate details of the work

process that are required in order to fix the details of the work process.

MR. FARVER: Whoever is signing off on the front page of that DR report should have reviewed it.

MR. HINNEFELD: Should know. It should say I agree this is right. Your signature can always be --

MR. FARVER: Really probably the only way you are going to catch this is if this is actually stated in the DR report that it should be so much per year. Then you have a chance of catching it.

MEMBER MUNN: Then the reviewer should know.

MR. FARVER: Should compare this with this and say oh, they are different.

CHAIRMAN GRIFFON: Yes, but there's sometimes just a reality check so someone saying wow, that's a huge intake, you know --

MR. FARVER: That can work too.

CHAIRMAN GRIFFON: That real -- I

know we do a lot of overestimates so that makes it tricky because you know --

MR. HINNEFELD: You would think somebody would have said wow, that dose intake?

CHAIRMAN GRIFFON: Right, right, right.

MR. FARVER: I do it by hand.

CHAIRMAN GRIFFON: But I think we are going to run into this a lot and the trouble will be --

MR. HINNEFELD: I think every one --

CHAIRMAN GRIFFON: peer review question, right.

MR. HINNEFELD: I think every one, if you really want to do a serious evaluation of -- because if you're looking about why do things break, why did it not work, you need to have a pretty good understanding of the work process.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: And to do that we

are going to get a better understanding o the work process to do that and this may be -- I mean a project like that may be for a handful of claims. That might be an all-day meeting if we were going to do it in this group, or it might be just, more conveniently, us going back to ORAU in our world and when we can do it --

CHAIRMAN GRIFFON: I would ask that you go back to ORAU but then come back to us with a presentation --

MR. HINNEFELD: Yes.

MEMBER MUNN: Absolutely.

CHAIRMAN GRIFFON: Of the work process, you know.

MR. FARVER: I just -- I sit on a commission in New Jersey that is looking it --

CHAIRMAN GRIFFON: Are you a county commissioner?

DR. MAURO: No, I'm not a county commissioner.

CHAIRMAN GRIFFON: That was a

lunchtime joke. Sorry.

DR. MAURO: We sit around a table like this and right now the big ticket item -- I don't know if you know this, some very, very serious problems with radiotherapy. People go in to get radiotherapy on a tumor and mistakes are being made. And this goes -- and the reason for the problem is everything is computerized and there's a very, very, very sophisticated machinery in place and they have got an army of technicians and other folks, physicians, going inside and they run the machine.

And I asked the question, well is anybody sitting -- is there anybody watching the store from the bigger picture before the person goes in, wait a minute, what are we doing here, does it all make sense? I'm not saying you're doing this, but what I'm getting at is this is a classic big problem. This is where the big mistakes are made.

You know when we catch, they didn't

have -- instead of 26 zeroes there are 28 zeroes, you know, that's -- you know, you have to catch that.

CHAIRMAN GRIFFON: Yes, yes, I think this is -- I don't mean to cut in on you but this is, sort of Stu's point is, if I can give the -- this is nice because I'm using some of the new stuff --

DR. MAURO: Oh is that right?

CHAIRMAN GRIFFON: Everything we are looking at on the Chemical Safety Board is high risk, low probability, so this is sort of high risk situation --

DR. MAURO: Exactly and more probability.

CHAIRMAN GRIFFON: And in this instance it's sort of the technology getting ahead of the workplace management, how to handle this, how to handle the technology.

DR. MAURO: Yes.

CHAIRMAN GRIFFON: I don't think we really have this with the --

DR. MAURO: No. No.

CHAIRMAN GRIFFON: Same type of thing, but to look at one thing we have to try to be able to tease out is how can NIOSH catch the bigger ones but some of the littler ones, like Stu is saying, how much investment do you make to catch every little error versus just catching them -- if you don't want to make big mistakes, can we accept little mistakes, I guess is what I'm trying to say, and where's that -- how can we make that distinction?

MEMBER MUNN: Well then you can't draw a line. It's always going to be --

CHAIRMAN GRIFFON: Right, right, right, yes

MEMBER MUNN: But the second part of this question, which is at least as important and maybe even more important ultimately than the one we have before us is, are these types of oversights still occurring? Or was this an artifact of the early days and this particular -- and/or this particular site that we were

looking at? You have a case where we have found this problem. Now is this a repetitive problem --

CHAIRMAN GRIFFON: Oh, you mean the bigger ones. I mean, the QA issues continue to be, now the magnitude of them is right, I'm not sure how many are -- a lot of them we catch are smaller, right, don't you agree, Stu, I mean Doug?

MR. FARVER: They may be small for the case we look at.

CHAIRMAN GRIFFON: Yes.

MEMBER POSTON: Maybe I'm -- many years ago I went through this training before I got -- I know how the dose reconstructors are supposed to do this stuff and in the old days, maybe it's changed, there was always a peer review that was done and I know a lot o times those dose reconstructions would go back to the person who did it and say you forgot to do this or you ought to do that, and where is this system broken? Is it because it is -

CHAIRMAN GRIFFON: Well, that's why I think we need --

MEMBER POSTON: More and more computerized and so people are trusting the computers? I mean, that's a real fallacy to think the computer is going to tell you the right answer.

CHAIRMAN GRIFFON: You see I think that's what we need to -- at least I think the best way forward is to let NIOSH go back to ORAU and get a good understanding and present it to us as a Subcommittee I think first, unless you think it should go to the full Board, of the work process. What exactly happened? How did the peer reviewers do it? What do the peer reviewers do because we have a general impression and I've seen the checklist but -

MEMBER POSTON: But I had another question at a higher level, are there documents that show that these computer codes and so on have been verified and validated?

Where are the V&V documents that we used to have on every one of these codes?

CHAIRMAN GRIFFON: Right.

MEMBER POSTON: Nowadays people write computer codes and they start using them. Back when I was a pup we actually sat down and made hand calculations to make sure that every part of that code worked.

CHAIRMAN GRIFFON: Right.

MEMBER POSTON: And so we ought to have some validation documents that would show that these things are working.

CHAIRMAN GRIFFON: I know for IMBA, you guys -- you went through this, didn't you, with IMBA? I don't know where it stands but the question was raised, yes.

MEMBER POSTON: Wait. I don't feel strongly about this.

(Laughter.)

DR. ULSH: Maybe I'm missing something here because I'm just reading what it says here. What it says happened this was,

this two typographical errors, that the dose reconstructor made two errors in entering into IMBA. The order of magnitude was too high and he chose picocuries per day instead of picocuries per year. Now that doesn't say to me that that's a problem in the tool or the computer code. That's a problem in the dose reconstructor man.

DR. MAURO: That's true. That's true. In this case, yes.

DR. ULSH: And -- well, you look at it from -- in terms of impact on PoC, it's a big problem, I mean it's a big issue. But if you look at it from a dose reconstructor's standpoint, someone who is putting out however many DRs a day, this is a situation where a small error had a big impact.

CHAIRMAN GRIFFON: Right.

DR. ULSH: So, these are going to be the most challenging types of issues, where if I type picocuries per day instead of picocuries per year, that's a big impact, but

in terms of a glaring, easy to detect error, unless you do what John said and take a step back, it's going to be hard to detect. But I don't see that this is a consequence of things getting too computerized.

CHAIRMAN GRIFFON: Maybe not. I don't know what the red flags are yet, but I think the more troubling -- we've all said this -- that the more troubling thing in this case is not that they mis-keyed something, I mean that can happen to anyone, but that it went through at least one peer review after this, you know.

DR. ULSH: And please understand, I'm not saying --

CHAIRMAN GRIFFON: That's the question. It's the system, more -- yes. Yes.

DR. ULSH: I'm not saying that it's not something that you should correct. I'm not saying that at all.

CHAIRMAN GRIFFON: I think John's raising another issue, which may be a separate

issue, but you know --

MEMBER CLAWSON: But it has been an issue that has come to the table numerous times.

CHAIRMAN GRIFFON: Yes.

MEMBER CLAWSON: Is feeding -- we are feeding all of this in and I have to laugh because my wife just started back into school and her teacher is frustrated because she does everything long-hand. She says, that's what the computer is here for and she says yes, but when I screw up I can't see what I did wrong in the computer program. And this is part of the checks and balances of the process, I think that people don't understand is, you have a computer system, works great, but how do we know what's going on in there, and that's just a check back.

We have in the process that I work out out there, we have to validate our system monthly because there gets to be glitches in there, there gets to be bugs. We have to check

our -- can't really talk about what -- but it makes sure our system that we are feeding you information into checks out. Every month we have a program check, and this is kind of what I think some of that frustration -- what people are looking at because we can't see what's happened, we can't go wrong, and then you get into the peer reviews of where did we pass this, how did this get past?

MEMBER POSTON: I agree with what -- I probably overreacted. But I think there are two issues. One of them is data entry and checking, the other is to know that the codes are doing them right, and I don't know, no one has told me, oh we got V&V data, no one has told me that, so if they told me that I would be quiet about that.

MR. HINNEFELD: IMBA's got a verification and IREP has a verification. There are workbooks that we use, there's some verification work done before it is put into place. Now, do I know specifically what it is?

No, but I could find out because all those workbooks are verified, okay, it's doing what we think it should do before it goes do the work.

CHAIRMAN GRIFFON: Well, the other check on the workbooks is quite frankly our process, I mean, when we do the procedures review, we are doing the workbook reviews. It's a point in time, I agree, because they evolve, but we are at least looking at that to some extent, but internally --

MR. HINNEFELD: That's all done, I mean it is done for IMBA and it's done for IREP.

CHAIRMAN GRIFFON: Yes, but John's right, we haven't seen, we haven't --

MR. HINNEFELD: No, but I think IREP might be on the web.

CHAIRMAN GRIFFON: True.

MR. HINNEFELD: It's available, validation and verification is on the website.

DR. MAURO: Oh, no --

MEMBER RICHARDSON: This is David. Those are two great points about verification of the software and verification of the data entry process, and I've been leaning towards thinking about the latter although I think the former is important and I think IMBA's has more independent users than the NIOSH version of IREP does so IMBA's probably been verified by BNFL and other people who are also using it.

IREP, I mean, we say we are verifying IREP through this process but we are not really. I mean I think there's -- nobody has independently tried to derive that. I can't. I've tried to dig into it some. I can't move very far forward in kind of taking it apart and trying to independently derive those posterior Probability of Causations that it is spitting out, so that's an open question to me.

But for the question about verifying the data entry, I mean, here we are

focused on one situation where it had a big consequence, but going through the seventh and eighth matrix, I have written down whole series of places where there were what I would consider data entry errors, like 125.7, maybe 154.1 and 155.5, and the thing that is concerning to me is that this is a like is it a 0.3 percent sample? I mean, like 100 records out of how many thousands?

CHAIRMAN GRIFFON: Yes, that's why we are saying, it's a small sample and that's why, even though these are minor, if you think that it's happening over the whole population of these --

MEMBER RICHARDSON: Yes, but I mean I would, like documenting 15, 20 key punch errors in a 0.3 percent sample means, if you weight that up --

CHAIRMAN GRIFFON: Right.

MEMBER RICHARDSON: That's tens of thousands of key punch errors. That is a big flag to raise and it seems like that's -- as

one part of Program Evaluation, this is something that is kind of reproducibility that if two people type in the same information, a minimum criteria for reproduecability would be that they typed that into a spreadsheet and you are going to have the same values.

CHAIRMAN GRIFFON: Right.

MEMBER RICHARDSON: So I don't know, I --

CHAIRMAN GRIFFON: No, no. you raise a good point. I think, I mean, I don't know, David, how you feel but my proposal was to have NIOSH take these back because we are just looking at these live and you don't have them in front of you, I don't think.

MEMBER RICHARDSON: No.

CHAIRMAN GRIFFON: No. So, what they have provided us is these descriptions going back to each individual case that we asked to look into further, but without understanding the ORAU process, you know, what they do in terms of peer reviews -- more of the specifics

of the work process, it's hard to really dig much deeper than yes, there was an entry error here, you know, and why didn't the peer review catch it? Well, we don't really know. Well, what does the peer review exactly do?

So I think that's where I'm sort of -- I don't mean to end this discussion now but I mean that's one thing, at least, that I think NIOSH, it would be good for me to know.

MEMBER RICHARDSON: So aside from this, what we are doing, there's not a standard process of double entry of data for kind of the fundamental data entry?

MR. HINNEFELD: Well, the dose reconstructor, when the dose reconstructor enters data into something, there is not. When -- before the dose reconstructor even gets a case file, the DOE exposure record is coded onto essentially a cell, a spreadsheet, so and that is dual coded. I believe that's the QC, but that does have data -- the kinds of traditional data entry QC you would expect.

Now from, now that file then goes to a dose reconstructor for interpretation into a dose reconstruction report, either using IMBA or CADW or whatever tools the dose reconstructor uses. That dose reconstructor's work of entry is not QC'd, is not double coded QC, they don't put a second person down there to do the dose reconstruction again. A peer review --

CHAIRMAN GRIFFON: Sometimes they will have the manual entry, they wouldn't just input those numbers necessarily.

MR. HINNEFELD: I think -- I don't know. Scott may be able to speak up here. I think it's going to depend on what tool they have available to use at what point.

MR. SIEBERT: I'm also going to jump in Stu. I'm not 100 percent sure that we are doing double key entry for the external records. We'd have to check with that.

MR. HINNEFELD: Okay so may not be double entering. Okay.

CHAIRMAN GRIFFON: Anyway, those specifics would be good to have, to come back to us with so we know exactly what is happening.

DR. MAURO: Say, I got something to bring up that could be very important. It has to do with spreadsheets. I had a very large contract, with the Nuclear Regulatory Commission many years ago where we started off using spreadsheets to build the simulation. The spreadsheets got bigger and bigger, more and more complex, more and more sophisticated. You reach a point with spreadsheets where you cannot catch the errors. You cannot catch them. We moved to Fortran, we just abandoned the whole spreadsheets approach and went to Fortran, which is readily QA-able, in other words, Fortran is a do-loop

Spreadsheets, especially when they are a little ad hoc, I could imagine some of you folks say well I have got to fix this and they would be a little bit -- and do something

to the spreadsheet on the go to deal with a particular circumstances. It becomes -- there's a point -- I'm just, believe me, I have been through this and I have seen it happen -- this project stopped in its tracks because we could not catch all the errors. The spreadsheets became unwieldy, impossible to check and we didn't even know if we were making any mistakes. We just abandoned the whole thing and in no time, we had our folks convert everything to Fortran. Fortran is very tractable through QA, QC process, conventional, this has to do with the nuclear safety issues, and you do not want to use a spreadsheet at some point.

Now I don't know how big these things are but I've seen some spreadsheets that have come out of this thing that are enormous.

CHAIRMAN GRIFFON: Yes, these workbooks can be really --

DR. MAURO: And let me tell you

something, you are not going to -- it is extremely difficult to ensure quality when you get to a certain point with the complexity of a spreadsheet. This is an observation that I have.

MR. KATZ: It seems like we have two action items here, one for DCAS to develop a presentation to the DR Subcommittee on the whole DR process so that you can get into the QA bit, and a second is for a DCAS presentation on whatever, it doesn't sound like it would be extensive, but on what is done in terms of workbook validation when it is developed.

MR. HINNEFELD: Okay.

MR. FARVER: Well we do find workbook errors. It's an error in how the workbook is built. In this case this was just a --

DR. MAURO: Oh, no.

CHAIRMAN GRIFFON: Right, right, right.

MR. HINNEFELD: I understand. Absolutely, absolutely.

DR. MAURO: We entered into a thing where -- I lived through this and I know, these things get too big.

MR. HINNEFELD: And you dated yourself a little bit with Fortran there John.

DR. MAURO: I didn't do it -- that's how we fixed it though, and it wasn't that long ago. And it fixed it.

MEMBER MUNN: You are not alone.

CHAIRMAN GRIFFON: It is, yes. Okay, Stu, can I ask, are there any -- what I was going to ask is, out of these, you're more familiar with them than I --

MR. HINNEFELD: Well, only barely.

CHAIRMAN GRIFFON: Are there are any that we should be aware of? I mean, just for the sake of example here, we can go into them more later when you come back, but -

MR. HINNEFELD: I don't know that I have enough -- I am familiar enough to really

comment on very much.

DR. ULSH: I would propose that -- well, this may be getting above my station, but I would propose that NIOSH go back and do these two action items and that will also give the Subcommittee time to look at this --

CHAIRMAN GRIFFON: Look at this, yes.

MR. HINNEFELD: If you would like, we will go through them and we will say okay, here's one that we think is particularly -

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: Although to be honest to Richard's point, the data entry situation -- in this case we had mistake that was easy to make, it was a data entry mistake, not a big consequence. Okay, going back to my safety manager days, the idea was that you wanted to design you work process so that the everyday mistakes that people are going to make don't have a big consequence.

So that's the kind of situation we

are in here, is how do we avoid the easy to make mistakes, how do we avoid a big consequence associated with the say to make mistakes, or what do we have to do especially to make sure that these easy to make mistakes don't carry through the process and have a big consequence.

CHAIRMAN GRIFFON: Right. Okay.

MR. FARVER: Well, if you just take a look at the last page, 158, 155.8, and even the one above that, 155.5. Look at finding 155.8, failed to assign environmental tritium dose and you can read through the response, but the peer review procedure was in place about two months prior and it does include checklist for internal environmental dose assessment, you know, is it correct, appropriate assessment.

So that probably should have been caught on that peer review. And then the one above that is another data entry error where the value is off by a factor of 10, an order

of magnitude high because they entered a bioassay value that was incorrect.

So these errors just keep on. So anyway, but the last one was the one that caught my eye there.

MEMBER MUNN: There's no way we can note these kinds of errors. The question is, how can we catch them?

MR. FARVER: Yes, agreed.

CHAIRMAN GRIFFON: How can you flag the ones that have bigger consequences, which is a trickier question.

MR. HINNEFELD: I'm not sure you can do that.

CHAIRMAN GRIFFON: I know, I'm not sure either.

MR. HINNEFELD: Whatever process -- we are talking about data entry here which is kind of a theme on a lot of these, stuff didn't get added that should have been put in, some if it where the wrong values were put in, some of the things weren't put in that should

have been put in. You're talking about that, there's no way to prejudge which one, you will only look for the ones that are important I don't think.

CHAIRMAN GRIFFON: No, I'm not -- I offer that --

MR. HINNEFELD: I don't know of any.

CHAIRMAN GRIFFON: that's what we'd like to answer but I'm not sure how they --

DR. MAURO: Every single one of these dose reconstructions, you could create a very sophisticated, very accurate protocol, with the workbook. I'll tell you right now, when we were doing the blind dose reconstruction, we broke it up into two groups. One person that was going to do the real, heavy lifting, detailed workbook work and my job was to do it by hand and I said listen, I don't care about the details. I am just going to look at something. Let me see what the -- oh here's the bioassay results? I'm not going to do a curve fit on IMBA, I'm

going to look at the bioassay results and see where they're coming in.

So okay, what seems to make sense, what would give you that? I was not looking for a level of precision. I was looking for does it seem to make sense? I have to say this. I think a lot of folks forget just to sit down and say wait a minute, does this seem to make sense? In 15 minutes, you could see whether or not this thing is within a factor of two. My rule is that when I'm checking something, if I come within a factor of two, it's probably right. And you catch these big ones fast. Anyway --

MR. KATZ: So that's a procedure that a peer reviewer might use for example as a way to try to catch some of these.

CHAIRMAN GRIFFON: But, see, then you -- and then you might have another -- a level of -- and we have talked about this before too -- there's a level of peer review when you get to those that are closer to the

PoC or something like you know, because that's where even a small error could swing a case if you're at 49.8 or whatever percentile, then even small mistakes can make the difference. So I guess it's not as simple as just catching the big ones.

DR. MAURO: I agree with you. I'm only talking about the big ones, the big ones. A 20 percent difference, I'm not going to pick up the way I do it. And 20 percent could be very important if you're at 47, 48 percent.

MEMBER MUNN: An order of magnitude you ought to be able to catch, just by looking at it.

CHAIRMAN GRIFFON: Brant's got a thought on this.

DR. ULSH: Also keep in mind, to go to a point that was raised earlier about, if we're catching this many errors in this small sample, how many are in the whole population? Don't we have a selection process where this committee is purposely honing in on situations

where these types of errors would be likely to occur or to have a big impact? I mean we are looking at ones --

DR. MAURO: It's a cross-section. We are trying to catch every decade --

CHAIRMAN GRIFFON: Yes.

DR. MAURO: every PoC category, and every cancer --

MR. HINNEFELD: Yes, but selection is keyed towards close to 50 percent.

DR. ULSH: We have situations where little --

CHAIRMAN GRIFFON: But that may not change the error rate, that may change the consequence rate, it may change -- yes. Yes. Right. Anyway. We'll leave those two actions that Ted described, I think, are where we should move with this topic, but anything else for the record now? We have these examples, we'll try to -- Mike and David will make sure, well they don't have government accounts, these have to be cleared first --

MR. HINNEFELD: We can get it cleared through OGC probably and get it to them. I don't think there's going to be any privacy issues.

CHAIRMAN GRIFFON: We'll get these to you as soon as I can. NIOSH will get these.

MR. HINNEFELD: The fact is I would prefer not to send it all and the reason I would -- we will, but my preference is to send it only to CDC computers because once we start sending things, okay this is cleared we can send it outside, this is going to be sent outside, it won't be long until we make a mistake.

MR. KATZ: Well, yes, I mean, what I've suggested for that is I can forward things that are not sensitive, I can forward them, I'm not worried about my making a mistake. I don't think I'll make a mistake. So -- I don't mind doing that and that's a workaround for that.

So for non-sensitive, I don't mind

forwarding those documents. You send them to me with just the CDC people and I'll take responsibility for sending it to others, but it's PA it doesn't go to anyone else from me, either, so that's -- and I've sent the Board an email about that recently. Up until now I've sort of taken on the burden of the liability on that issue and I'm not going to carry it anymore.

CHAIRMAN GRIFFON: Okay, so let's move on to the next item, the selection of the 14th set of cases, and Mike and David, do they have any way of getting these? You said these could be emailed or no?

MR. HINNEFELD: Yes, these are not privacy. I know these are not privacy.

CHAIRMAN GRIFFON: I mean are you comfortable with emailing them to their regular accounts?

MR. HINNEFELD: I'm not comfortable but I can do it.

CHAIRMAN GRIFFON: Well, there's

levels of comfort. Are you fairly comfortable? Okay.

MEMBER MUNN: Oh, you think so?

MR. HINNEFELD: It'll take me just a minute because I've got to clear a couple of things out here.

CHAIRMAN GRIFFON: Well all right, what I'm going to say is let's take a five -- let's keep this one short because we just got off for lunch really, but take a five-minute break, let Stu forward these over, and we'll be right back.

MS. BEHLING: Stu, can you include me on the email?

MR. HINNEFELD: That was Kathy?

MS. BEHLING: Yes.

MR. HINNEFELD: Kathy.

MS. BEHLING: You can send it to the CDC account.

MR. HINNEFELD: Okay.

CHAIRMAN GRIFFON: Let's take a 10-minute break and that way people can have a

chance to look through this list of cases and then when we come back from our break we'll start doing our selection, you know, go through it case by case and pick out ones we think -- you know, we'll go through our regular process of selecting, pre-selecting.

Ten after two we'll come back, all right? Thank you.

MR. KATZ: Ten after, about, around ten after.

(Whereupon the above-entitled matter went off the record at 1:58 p.m. and resumed at 2:15 p.m.)

MR. KATZ: Okay, this is the Dose Reconstruction Subcommittee. We are just reconvening after a short break.

CHAIRMAN GRIFFON: Okay and Mike and David, are you guys on the phone?

MEMBER GIBSON: It's Mike. I'm here, Mark.

CHAIRMAN GRIFFON: All right, did you get the file?

MEMBER GIBSON: Yes, I did get it.

CHAIRMAN GRIFFON: Okay.

MR. KATZ: You too, David?

CHAIRMAN GRIFFON: All right well why don't we go ahead and start. I'm going to assume David got it and again, this is the pre-selection, so the process will be that we will identify these, right Stu, and then you'll give us additional information on them?

MR. HINNEFELD: Yes, I would like to suggest that we maybe select more than what we want to ultimately select --

CHAIRMAN GRIFFON: Well --

MR. HINNEFELD: Because when we get the additional information --

CHAIRMAN GRIFFON: I think I'm looking to select any case viable on here.

MR. HINNEFELD: Okay.

CHAIRMAN GRIFFON: You know there's only a total of 50-something or whatever?

MR. HINNEFELD: There's 52 on here.

CHAIRMAN GRIFFON: So it's not that

big a list, like sometimes you provide us a lot more.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: So yes, let's select as many as we can here.

MEMBER MUNN: And what are we aiming for, ultimately? Total number?

MR. KATZ: Well, ultimately we are aiming for about 30.

CHAIRMAN GRIFFON: Yes, usually we do sets of 30, but we have varied on that a little bit --

MEMBER MUNN: Just wanted to make sure.

CHAIRMAN GRIFFON: Yes. So, I can get the ball rolling and they go from low to high PoC, obviously.

MEMBER MUNN: Well, let's ask the other obvious questions also. What other criteria are we -- do we have any specific criteria we want to aim for?

MEMBER PRESLEY: Like a site that we

haven't done.

CHAIRMAN GRIFFON: Yes, and I was going to ask, as we go through --

I mean at the end, that's a good question Wanda, at the end we might want to look back. Paul had asked that question and I didn't really get a chance to look at the spreadsheet with the responses but some of that asked about the other things, and maybe if we asked for an expanded matrix, we can ask for some of those factors that Paul had brought up, you know --

MEMBER MUNN: I guess --

CHAIRMAN GRIFFON: as other criteria, I mean --

MEMBER MUNN: My point is it's really difficult for me to evaluate which of these might be worth our delving into unless I am clear at the outset what we really and truly are establishing as our criteria for looking at them. It -- you know we have done decades, we have done the cross --

CHAIRMAN GRIFFON: Right.

MEMBER CLAWSON: These are full internals, all of them.

MR. HINNEFELD: Yes.

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: These are all full.

CHAIRMAN GRIFFON: Well, they're all described as full here. As we know that is not necessarily --

MR. HINNEFELD: That's the button pushed by the peer reviewer.

CHAIRMAN GRIFFON: Right. For instance we know that when you say Simonds Saw is full, it is a one size fits all model.

MR. HINNEFELD: It's the only option.

CHAIRMAN GRIFFON: Right.

MEMBER PRESLEY: What I would like to see us do is take something from about where you start here at 232, which is 45 with a PoC of 45.635 and put every one of those in

there for review that goes up to 49.57.

DR. MAURO: I agree with that.

CHAIRMAN GRIFFON: I would almost agree with that except for the fact that there's several -- that may not even include them Bob, so I may agree with that. No, there's a couple at the end there, it's like three Bethlehem Steels, although they are really close to 50.

MEMBER PRESLEY: You get up that close -

CHAIRMAN GRIFFON: 49.57, this is Paul's pet peeve, how do you get that kind of degree --

MEMBER PRESLEY: Yes.

MEMBER MUNN: Well, and besides, it's one thing if you are talking about the broad swipes, the overestimates and the underestimates. It's a whole different thing if you're talking about what is provided to us.

MEMBER PRESLEY: I would like to

know how in the world that something in Kansas City can come out as a zero.

MR. KATZ: But when you're dealing with a model like Bethlehem Steel, you are going to get them coming out at any number. It's still a machine.

MR. HINNEFELD: Yes.

MEMBER PRESLEY: Just so you know, one guy goes to one point, one additional place, and the next guy goes to two additional places and that might be, instead of 49.57, that might 49.6.

MEMBER MUNN: Or the next unit may be zero.

MR. HINNEFELD: I think the last one was listed on there by mistake. I clip these out of a much longer list.

CHAIRMAN GRIFFON: Kansas City.

MR. HINNEFELD: Yes, yes. And we selected the first, selected like 51 or so, and I think I clipped one too many lines but I clipped this out of a much longer spreadsheet

and I clipped one too many lines I think.

CHAIRMAN GRIFFON: An interesting one though.

MEMBER MUNN: Well, I guess, I'm sorry to have started that discussion but I'm still not clear -

CHAIRMAN GRIFFON: No that's all right.

MEMBER MUNN: what needs to be our criteria --

CHAIRMAN GRIFFON: I think the criteria, at least for our pre-selection Wanda, in my opinion, the criteria is the same as we've always done, the one factor that I would pay maybe a little more attention to this time through is the data proved, which to me would mean -- I would want to focus like there's one Simonds Saw that was done 10/14/05. I would hope that we will, as Stu has said many a times, let's look for more current cases, yes because otherwise we are going to see similar findings that we have

seen in the past. Yes, so, if we were thinking of moving the ball here, I would focus on that.

But otherwise, you know, these are -- a lot of these look reasonable.

MEMBER PRESLEY: You got one there from Simonds Saw and you've got one from Y-12, in that category.

CHAIRMAN GRIFFON: Well is it okay if we just go by -- go through one by one, remembering that this is a pre-selection and if we -- when we get the full listing out, next time we can still cut them off the list. So I'm going to be more inclusive on this run-through than -- and is the idea to do -- you won't have this ready by next week?

MR. HINNEFELD: Not clear that we will.

CHAIRMAN GRIFFON: All right.

MR. HINNEFELD: But we are trying to figure out if we'll have it --

CHAIRMAN GRIFFON: Okay. The idea is

if we can do that, we can do the full selection at the full Board and that would make SC&A happy.

MR. KATZ: That's the hope.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: Now one thing I should probably mention here, on this pool, is that we have been selecting cases for review on a basis of uncertain set of criteria, meaning it had to be ready for review, meaning finally adjudicated. Well, it turns out we don't necessarily know all the time when a case is finally adjudicated. The site, the DOL site offices don't necessarily send us the file decision. So there were a number of cases that had been done that we can't select.

After this, going forward, we are going to select everything that as far as our record is concerned, is at DOL. Then we will take that selection list or maybe a pre-selected list of them, give that to DOL and say okay, which of these really are finally

adjudicated. And then we would have a set.

So we have been drawing from an incomplete set of incomplete piece of the population when we've been drawing these. So we can -- if we get another grab at another selection process, it's not like we're going to see 10 cases.

CHAIRMAN GRIFFON: Okay. All right, so going down the first page I'm on, ID number 273, I would say to include that, understanding that -- well let me ask this. The Hooker model, I think there's a site model for Hooker that we just covered, right?

DR. MAURO: The Site Profile and the ER.

CHAIRMAN GRIFFON: But I'm not sure that the -- this might predate what was done in the model.

DR. MAURO: What date is that?

CHAIRMAN GRIFFON: This is 8/3/07, that the reconstruction was done. So it might have used some of those older TIBs. The

question here might be, is this conservative relative to the documents that are available now. So I would argue to include that one.

The next one I have on the list is the 446, I just skipped the American Bearing. We have done American Bearing once I believe. And this case was done in `04, so I skipped that one. 446, any opinions on that?

MEMBER MUNN: That's Paducah. We have plenty of Paducahs.

(Simultaneous speaking.)

CHAIRMAN GRIFFON: Well, yes. Yes, it had -- it had the vast number of sites. I guess that was the interest to me.

MS. BEHLING: Excuse me, Mark.

CHAIRMAN GRIFFON: Yes.

MS. BEHLING: I don't believe that we have done an American Bearing as I am looking down through the list.

CHAIRMAN GRIFFON: Oh, we haven't?

DR. MAURO: No, we haven't. I would know that.

MS. BEHLING: No.

CHAIRMAN GRIFFON: All right. So I guess I would argue to include that. And then I had the next two -- so the first three I've checked.

MEMBER RICHARDSON: So, American Bearing, I mean the one thing is, it was -- the review was done in 2004. Is that --?

CHAIRMAN GRIFFON: Yes, but we would ask for a mini Site Profile and ask that -- if there is a Site Profile. I don't even know if it's a --

MR. HINNEFELD: I don't even know how this was done.

CHAIRMAN GRIFFON: Right. I think we have to raise that question David, that's the --

MR. HINNEFELD: Chances are it was a TIB-4, but --

CHAIRMAN GRIFFON: Yes, chances are it's just a generic process, but -- I think we would have, if there is any site matrix or

Site Profile out there, we would ask SC&A to delve into that.

DR. MAURO: Yes. I was just going to ask. We haven't done this recently, since way back. If there are any that you would like one of these mini Site Profiles, like we did in the eighth set --

CHAIRMAN GRIFFON: Right.

DR. MAURO: Please point them out to us.

CHAIRMAN GRIFFON: Yes, I think we may not know that until we see the case, you know, so.

DR. MAURO: Sure.

CHAIRMAN GRIFFON: All right and then refresh my memory on ElectroMet and Harshaw, the next two.

MR. HINNEFELD: Electro Metallurgical was also in the 6001 --

DR. MAURO: We're actively reviewing this as a -- well this is an SC&A. It's in the -- we're actively reviewing this with the 6001

Work Group as we speak, the Site Profile and the ER. As far as cases go, I think I do recall doing a case.

MR. HINNEFELD: I can't recall if we did, Kathy do you know that?

MS. BEHLING: We did one case.

CHAIRMAN GRIFFON: Okay, so I can go either way on that one. I think it's a one size fits all model I believe.

MR. HINNEFELD: I believe it is, yes.

CHAIRMAN GRIFFON: So I would say we don't necessarily have to do another one. I would leave that off the list. The next one I have is 092 Y-12. I skipped the Simonds Saw ones because I am pretty sure we did a Simonds Saw.

DR. MAURO: Yes, we did two, I remember.

MEMBER CLAWSON: There's a Pantex.

CHAIRMAN GRIFFON: Oh, Pantex. I didn't see that one. Iowa and Pantex.

MEMBER CLAWSON: And Pantex. The reason why I'm saying that is that we've got over 40 years in --

CHAIRMAN GRIFFON: Yes.

MEMBER CLAWSON: And this would bring into it -- I'd just like to see that one if I could.

CHAIRMAN GRIFFON: Okay. All right, 130, let's add on the list. Then 092 is the Y-12 plant. And did we do Alcoa?

DR. MAURO: Yes, I just finished one.

CHAIRMAN GRIFFON: Yes, do I don't -- I imagine that's a one size fits all.

DR. MAURO: Yes.

DR. ULSH, So, 92 is in?

CHAIRMAN GRIFFON: Yes, unless --

DR. ULSH: 663 is out, then?

CHAIRMAN GRIFFON: Right.

DR. ULSH: Okay.

MEMBER MUNN: Even thought it's one of the more recent ones we have?

CHAIRMAN GRIFFON: It is one of the more recent ones, I noticed that too.

DR. MAURO: Alcoa 1, that's the Pennsylvania one, right? There's an Alcoa 1, there's an Alcoa 2. I forget --

CHAIRMAN GRIFFON: Yes. I don't know which is which.

DR. MAURO: Yes.

MEMBER PRESLEY: I think you're right.

CHAIRMAN GRIFFON: Do you know which one you did before?

DR. MAURO: Pennsylvania, I forget if it was one or two. I just finished it.

CHAIRMAN GRIFFON: Okay.

MS. BEHLING: It was one.

DR. MAURO: It was one?

MR. HINNEFELD: It was one?

DR. MAURO: Thanks Kathy.

CHAIRMAN GRIFFON: Then the last one --

MEMBER MUNN: Interesting work

decade on that.

MR. HINNEFELD: Some of these AWEs, they refer to --

CHAIRMAN GRIFFON: Thirty? Yes, I know --

MR. HINNEFELD: The day they started working at that company.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: And then the dose reconstruction starts when that company got the AEC contract.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: So I mean the actual dose reconstruction period is going to be whatever the covered period was for that site.

CHAIRMAN GRIFFON: Right.

DR. ULSH: So, 92 is in, 63 is out?

DR. MAURO: There's one thing -- I'm sorry -- it's a rough process. One of the dimensions of this thing that has recently become important is the use of surrogate data. In other words, many of these AWEs depend on

surrogate data and only recently have we been looking at it -- now we would do the review as we normally would but now we are starting to ask the question, okay, the way they applied surrogate data for this Site Profile in this case, does it meet the new surrogate data criteria, the plausibility, timeliness and all that sort of thing. So that has been something that ewe are doing now that we never did before.

I've just been reminded. So and I know Alcoa was one of them where they ended up using Christifano & Harris as a surrogate data source for -- and I don't know whether that's important to the --

CHAIRMAN GRIFFON: Well I think it's important but if you've covered it in one case --

DR. MAURO: And I did cover it, I -- yes, I --

CHAIRMAN GRIFFON: It's going to be the same for all of them.

DR. MAURO: Yes, and it will, but I just --

CHAIRMAN GRIFFON: Right. No, good idea and I actually jotted that down. That might be something -- I'm not sure how easy that is for NIOSH to tease out in the next set of extra information --

DR. MAURO: I can help with that. I wrote --

CHAIRMAN GRIFFON: If we asked them for is. Is surrogate used or not, you know.

DR. MAURO: I made a table up about six months ago --

CHAIRMAN GRIFFON: Oh yes, you did.

DR. MAURO: With every single, every single site --

CHAIRMAN GRIFFON: That's right. So it shouldn't be --

DR. MAURO: Which ones have surrogate and what and I could email that to everyone.

CHAIRMAN GRIFFON: That would be

useful, yes.

MR. KATZ: Everyone has that already, right?

DR. MAURO: You probably -- oh you do? But if you want me to resend it.

CHAIRMAN GRIFFON: They do -- but I think it might be worth resending. All right. Then I picked 572 but I could go either one on this one. The main reason I picked this one was it was in a more recent case.

MEMBER MUNN: So are we doing 653?

CHAIRMAN GRIFFON: I skipped 653.

MEMBER MUNN: Okay.

CHAIRMAN GRIFFON: 572, I'm including. It's the three plants but also it's a fairly recent reconstruction. All right? So that gives one, two, three, four, five, six on that page.

MR. KATZ: I only have five.

CHAIRMAN GRIFFON: I added on 130. Did you get that one?

MR. KATZ: Oh, yes. I have 130.

DR. MAURO: Could you give us the first page, could you just run down real quick?

CHAIRMAN GRIFFON: I got 273, 036 --

MR. KATZ: Oh I missed that. Okay.

CHAIRMAN GRIFFON: 446, 130, 092 and 572.

MEMBER CLAWSON: Yes, I hadn't heard of that one.

CHAIRMAN GRIFFON: Yes, I don't know if we've done DuPont Deepwater.

DR. MAURO: Yes, we are in the middle of doing a Site Profile -- this is one of the ones we sort of postponed --

CHAIRMAN GRIFFON: Right.

DR. MAURO: Site Profile review, but I did do a case, at least one case. Kathy probably knows. I think we just did one case.

MS. BEHLING: Just one, yes.

CHAIRMAN GRIFFON: I don't see a need. It's two years of experience. I think if we have the one case.

MEMBER MUNN: That was one of the things, when I was looking over this very quickly, one of the things that I chose to do was look at very short employment, anybody that had five or less years of employment, I looked at to try to ascertain in my own mind why in the world would you have an almost 37 percent PoC? How does somebody who has been employed some place for a couple of years? That's a very high PoC for a very short period of time.

It turns out, as I looked down all these things, virtually all of those are lung, almost every single one of them.

DR. MAURO: And it's probably surrogate data where they assigned some very --

CHAIRMAN GRIFFON: Very conservative, yes.

MEMBER MUNN: But it seemed to me worthwhile as another criteria, as a different criteria, than one that we have used in the

past. It's odd that someone with short exposure time supposedly and significant PoCs.

CHAIRMAN GRIFFON: So you want to include Deepwater or others? There's other ones, I don't know if you want --

MEMBER PRESLEY: Yes, there's another one down there. I keep talking about it but I wish somebody would bring it up and look at it. 07.

CHAIRMAN GRIFFON: I have that one checked. I do have that one checked and that's a short period as well.

MEMBER MUNN: So do I.

CHAIRMAN GRIFFON: But I would still argue to skip Deepwater unless you really want to -- do you want to add it, or? All right. But we will keep that in mind.

MEMBER CLAWSON: I had never heard of it and I was just wondering if it was something else.

CHAIRMAN GRIFFON: Yes. The net one we've heard of, Blockson Chemical. I don't

know that --

MEMBER MUNN: I see that from time to time.

CHAIRMAN GRIFFON: I don't know that we need to do another case on that.

MR. HINNEFELD: That'll be, it looks like an SEC claim now.

CHAIRMAN GRIFFON: Yes, that is what I was wondering too, and General Steel we have done at least one.

DR. MAURO: Several.

CHAIRMAN GRIFFON: So I would say skip those. The next -- for some reason I did check one of those, oh, only because of the date it was done but the model should be the same. That was 614 I'm looking at.

MEMBER PRESLEY: I was going to say, that's -- you got two different types of cancer there in two different areas.

MR. HINNEFELD: That's actually one cancer --

MEMBER PRESLEY: Oh, is that one?

MR. HINNEFELD: That's one cancer model, lymphoma and multiple myeloma cancer model.

CHAIRMAN GRIFFON: But it does have Dow added with General Steel and we've often covered those together anyway. But have you done Dow Chemicals? I know we've done --

DR. MAURO: Oh, no, oh that's very much on our front burner in terms of the Site Profile SEC.

CHAIRMAN GRIFFON: Have you done a case?

MS. BEHLING: No, we have not done any Dow cases.

CHAIRMAN GRIFFON: Right. So -

MEMBER CLAWSON: Let's do that one.

CHAIRMAN GRIFFON: I think we should add that one on, 614. As a matter of fact I think we were asked if we had done any Dow cases at one point by the petitioner, yes.

MS. BEHLING: Yes, we were.

CHAIRMAN GRIFFON: Yes. Okay. Next

one I have is 107 as was mentioned. Short time period. It was actually done very early on, though, that's my -- the only possible hesitation there. I don't know what people think about that.

Okay we will leave it in then, at least for this, again, we are triaging here. I have the next one in, 481. And I have 566. They are both, well, fairly recent reconstruction. And then W.R. Grace I had a question on, I think we have done this one Katy?

MS. BEHLING: We have done one W.R. Grace, yes.

CHAIRMAN GRIFFON: One W.R. Grace.

DR. MAURO: We have a case in front of us right now that we are working on. Did we do one earlier or is this the one you are referring to, the one we have right --

MS. BEHLING: It's the one we are working on right now, that's the only one.

DR. MAURO: Okay, we have got this -

- right now there's an active one.

CHAIRMAN GRIFFON: It is a site, it is a one size fits all kind of model though or --?

DR. MAURO: Haven't looked at it yet.

MS. BEHLING: It has a Site Profile or an exposure matrix so --

MR. HINNEFELD: W.R. Grace is now Nuclear Fuel Services, Erwin, Tennessee and we have got exposure records for them.

CHAIRMAN GRIFFON: Oh.

DR. ULSH: It's an unusual cancer, too.

DR. MAURO: Nervous system.

MEMBER MUNN: That's what I was thinking before.

CHAIRMAN GRIFFON: Well then we might -- are you using exposure records to reconstruct?

MR. HINNEFELD: We better be.

CHAIRMAN GRIFFON: I guess you'd

better be, if you've got them, yes, yes.

MR. SIEBERT: Yes, we are.

CHAIRMAN GRIFFON: Okay, and this was done in `09, do you think that would have included the use of -- Scott?

MR. SIEBERT: I don't see why it would not have.

CHAIRMAN GRIFFON: Okay. Okay. So maybe we should include it. 564, add that. So that's five on that page.

MEMBER MUNN: I of course checked 316.

CHAIRMAN GRIFFON: On the next page? I was just going to say, the next page I've checked everything except number 83, Superior Steel. But I'm not sure, in relooking at them, I'd like to drop a few off.

MEMBER PRESLEY: Well let me ask you something. Look down there at 485, the thyroid from Nevada Test Site?

CHAIRMAN GRIFFON: Yes.

MEMBER PRESLEY: How many cases are

we seeing on that particular type of cancer? Is that --

MEMBER MUNN: Not a whole lot.

MEMBER PRESLEY: That's what I was going to say.

MR. HINNEFELD: Yes, I can -- I think I can tell you here and now.

CHAIRMAN GRIFFON: I have that checked as well.

MEMBER PRESLEY: Yes.

MEMBER MUNN: Here's the other DuPont Deepwater.

CHAIRMAN GRIFFON: Well I'm proposing to add everything except number 83 on that page. So if -- but if you want to drop any off, I mean --

MEMBER PRESLEY: Do we need Deepwater back in there again? We dropped it off once before.

CHAIRMAN GRIFFON: Oh yes, Deepwater, you're right. No, I think we should drop off Deepwater, right? And probably

Simonds too don't you think, Simonds Saw and Steel lung, it's the same model. So I revise my statement.

Let me read down what I have now. I'm sorry. I was trying to be a little more efficient and came out less efficient. Okay, I have 313, Hanford case, 316, Savannah River, 479, which is an X-10 case, 54, which is an Iowa case, done in `04 but it's a bladder cancer, right? It's not a -- yes. Then 630, which is a Hanford, 485, Nevada Test Site and 424, Blockson.

MR. HINNEFELD: Bob, to your question, we have done four claims where a thyroid was the cancer when it had a single, there was just the one cancer on the claim. We have done one other claim where thyroid was on where there was multiple cancers on the claim.

MEMBER MUNN: Not a whole lot.

MR. HINNEFELD: Yes, that Blockson case will be in the SEC, I mean we still look at the dose reconstruction.

DR. MAURO: Same goes for NTS.

MR. HINNEFELD: Yes. The NTS thyroid will be in the SEC as well.

CHAIRMAN GRIFFON: Oh I'm sorry, okay then, drop those off the list if --

MR. HINNEFELD: Both the NTS and the Blockson so that's 485 and 424. Is that what you want to do?

MEMBER MUNN: Yes. That's what he said.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Take them off.

CHAIRMAN GRIFFON: NTS is off. And 424 is off. Okay. So then I must have five on that page, right?

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: All right. Okay, then the next one I have is, I wasn't sure about this, this is a question mark, Allied Chemical. This is one of those, Wanda, that caught my eye just like yours, 0.5 years.

MEMBER MUNN: Yes, half a year --

CHAIRMAN GRIFFON: Right. It's skin cancer. That's why, probably multiple skin, is my guess.

MEMBER MUNN: Yes, it is.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Melanoma, basal cell --

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: That's also a place where we get exposure records from. We get exposure.

DR. MAURO: Yes, we didn't want to wait. It's a complex one.

CHAIRMAN GRIFFON: Okay. Let's leave it in, just out of uniqueness and it's a new case. Next one is Westinghouse Nuclear Fuels Division. Have we done Westinghouse? I don't think so.

DR. MAURO: Kathy, do you know if we did any Westinghouse?

MS. BEHLING: Let me look here. One.

DR. MAURO: We did one.

MS. BEHLING: I think we are

probably working on that right now.

DR. MAURO: Okay.

MS. BEHLING: Westinghouse Nuclear Fuels Division, yes.

CHAIRMAN GRIFFON: I'll leave it in for now. We can --

DR. ULSH: Is that an SEC site? I don't recall.

MR. HINNEFELD: I don't recall if it is or not. One Westinghouse is and one isn't.

CHAIRMAN GRIFFON: We can follow up on these --

MR. HINNEFELD: We can figure it out.

CHAIRMAN GRIFFON: at the full meeting, yes. Yes.

MR. HINNEFELD: We can figure it out.

CHAIRMAN GRIFFON: Okay, let's see. Next one I had -- I did have this Portsmouth one listed, it's a skin cancer, 44 percent. I could go either way on that one.

DR. MAURO: This is one of those that we are continually struggling with in terms of as a particle settling on the skin, you know.

CHAIRMAN GRIFFON: Yes, yes.

DR. MAURO: That's what's going to -- of course because it's skin cancer it is not covered by the SEC. But the question is, assigned 44, that is probably based on, my guess is film badge data --

CHAIRMAN GRIFFON: And multiple cancers probably.

DR. MAURO: Yes. And the only thing that would make it something of interest to the group is that it may turn out that if you were to assume that, let's say, uranium particle fell on -- if it turns out on, let's say, the neck, or I don't know -- whenever we see a person with skin cancer on the hand, the face or the neck, we always raise -- and it's at a site where there's potential for particulate settling, I always say well

listen, what are you going to do here? This is a global issue.

CHAIRMAN GRIFFON: Right.

DR. MAURO: This is a global issue, what do you want to -- that's probably just going to emerge out of this review, a global issue is going to come up.

CHAIRMAN GRIFFON: Yes. Let's leave it on the list for now.

Okay. 545, Savannah River, another lung case on Savannah River, but these Savannah River cases have proved to be very interesting as we have reviewed them, and we are not -- I remember a presentation in July that when I looked over our overall estimates of where we want to be for percentages for the sites and this is a big site with a lot of claims and we're not -- we're not quite there --

DR. MAURO: Not there.

CHAIRMAN GRIFFON: Even though we seem like we are doing tons of Savannah River

cases.

MR. KATZ: The 13th set, you added a lot, though. There were a lot of Savannahs in the 13th set I think.

CHAIRMAN GRIFFON: I think you're right, so. Well, we can consider that with the full Board as well and maybe I'll try to update those projections too for the meeting, by next week. Yes, right. Okay. I'm skipping that one and then Rocky Flats, my question was, does this fall on the SEC, other respiratory, is that not --

MR. HINNEFELD: If you leave out the respiratory, all is compensated, I think everything's compensated until you get to Mound.

CHAIRMAN GRIFFON: Right. So it should be SEC, right, this one?

DR. ULSH: Well, it's in the SEC time period, it's an SEC cancer, but --

MR. HINNEFELD: But may not be neutron exposed.

DR. MAURO: I'm sorry, it may not be -

MR. HINNEFELD: Neutron exposed.

CHAIRMAN GRIFFON: Neutron exposed.

DR. MAURO: And that would be --

CHAIRMAN GRIFFON: And that would be the final hurdle with DOL.

Well, let's leave it on for now and that will prompt me to bring up that topic with DOL at the full meeting. That's 528, yes.

I guess the next one I had is 666.

MEMBER MUNN: Oh.

DR. MAURO: Ominous.

DR. ULSH: Skip that one.

(Laughter.)

DR. MAURO: Ominous.

MEMBER CLAWSON: We will never do it.

MR. KATZ: It's like the 13th floor.

MR. HINNEFELD: You'll pardon me if we're not surprised.

DR. MAURO: Everybody saw "The

Omen," right?

CHAIRMAN GRIFFON: Right. You need your own building.

CHAIRMAN GRIFFON: Okay, last page, well last page and a couple --

DR. ULSH: Wait, 666 is in or not?

CHAIRMAN GRIFFON: Yes.

MR. KATZ: Despite our worries.

CHAIRMAN GRIFFON: Despite our worries, yes.

MS. BEHLING: It is in, right?

CHAIRMAN GRIFFON: Yes.

CHAIRMAN GRIFFON: I put 643 in. I know it's a skin but it's at the Pacific Proving Ground in Nevada Test Site. It's the sort of non-SEC Nevada Test Site.

DR. MAURO: And Pacific Proving Ground.

CHAIRMAN GRIFFON: And then the same thing for the next one, Rocky Flats, non-SEC sort of reconstruction.

MEMBER PRESLEY: Argonne?

CHAIRMAN GRIFFON: Same, Argonne East, I don't --

DR. MAURO: We never did -- I don't think -- did we ever do an Argonne East Kathy? I don't think so.

MS. BEHLING: Yes, one.

DR. MAURO: We did do one, okay.

MS. BEHLING: Two.

DR. MAURO: Two? There you go,. You know what, I didn't do it, so I don't remember.

CHAIRMAN GRIFFON: It's not all about you, John.

DR. MAURO: It's not all about me.

CHAIRMAN GRIFFON: All right, I'm going to include 581 anyway. I don't think that's the one size fits all model is it, Kathy?

MS. BEHLING: I don't think so, no.

MR. HINNEFELD: We get exposure histories from -

CHAIRMAN GRIFFON: Right, right. So.

MEMBER MUNN: It's just Idaho.

MEMBER CLAWSON: No, that's Chicago.

MR. HINNEFELD: She's in Chicago.

CHAIRMAN GRIFFON: Idaho is east for Wanda. 591, Mound, I included it, this one caught my eye with the more recent reconstruction date also. I skipped the Bethlehem.

DR. MAURO: 1930?

CHAIRMAN GRIFFON: I took the next Mound also.

MR. HINNEFELD: Their hire date.

DR. MAURO: Well, that goes back.

CHAIRMAN GRIFFON: So, the next -- I skipped the 567. I put in 604, Mound lung reconstructed in `09. Skipping the next two Bethlehems. The last one I have is 106, Portsmouth. It's skin but it was fairly compensable. And that's where I left it with one more question, which is do we do these next two. I'm pretty sure we did Bliss &

Laughlin, didn't we?

We did the Reduction Pilot Plant?

MR. HINNEFELD: That's Huntington Pilot Plant.

CHAIRMAN GRIFFON: Oh it is Huntington, okay.

DR. MAURO: Yes, I don't know -- right, this is Huntington --

CHAIRMAN GRIFFON: Then did we do Grand Junction?

MEMBER CLAWSON: Grand Junction is the one that kind of got me -- look at that, years there, 1.2 years.

CHAIRMAN GRIFFON: Yes.

MS. BEHLING: We've done two Grand Junctions. But I don't believe we have done Bliss & Laughlin.

CHAIRMAN GRIFFON: Oh, I thought we had.

DR. MAURO: We have a Site Profile review. I don't remember a case.

CHAIRMAN GRIFFON: Maybe that's what

I'm remembering.

DR. MAURO: Yes.

CHAIRMAN GRIFFON: Is it under the southern --

DR. MAURO: 6001, exactly.

CHAIRMAN GRIFFON: Yes, that's what I'm remembering.

DR. MAURO: We just finished it.

CHAIRMAN GRIFFON: So I mean maybe we should do the Bliss & Laughlin then, 423.

MEMBER PRESLEY: I'm going to be honest with you. I'd like to see that 246 for Bethlehem Steel. If you round that off, it's 50 -- 49.57.

MR. HINNEFELD: It'll be paid under the SEC anyway.

MEMBER PRESLEY: Will it? Okay.

MR. HINNEFELD: The lung at Bethlehem Steel, it's SEC.

MEMBER PRESLEY: Okay.

CHAIRMAN GRIFFON: Yes.

MEMBER PRESLEY: Okay.

MEMBER MUNN: So, what was the decision about 105 and 131?

CHAIRMAN GRIFFON: I was going to not put 105 in or 131 because Kathy said we did a couple of Grand Junctions and also the Huntington Pilot Plant we have done.

MEMBER MUNN: So Grand Junction, you noticed, that's another one of those --

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Fairly new --

CHAIRMAN GRIFFON: Right. Let's do it. You're right, because that's a -- yes, how conservative is conservative enough, right?

MEMBER MUNN: Yes.

MR. HINNEFELD: I suspect that's the radon there. That would take a whole lot of radon.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: Is that on there then?

CHAIRMAN GRIFFON: So, let me see, yes. I've got -- let me count, six and five, one, two, three, four -- 30 exactly. I've got

30 on the nose assuming we don't cut any. But I think that's the best we can do with this list. And if we lose a few we will still be close to the 30, you know? All right. Everybody good with that? Okay.

Moving on, let's cover this one item that Ted was mentioning to me, the PER 12, the case tasking, I guess is what we have to do, right?

MR. KATZ: Yes.

CHAIRMAN GRIFFON: So, go ahead.

MR. KATZ: So, it's high-fired and we have traded these emails. Hans originally had hoped to do the case selection. He got into the system and realized he didn't have the wherewithal to be able to do that on his own independently, so I forwarded that finding from Hans along back to DCAS, to Brant and Stu, and we discussed this at a break here. They are going to then do the selection. If you need Hans's help at some point to understand his matrix of cases or what have

you, then just by all means get in touch with him directly, and consult with him so you can do the selection.

MR. HINNEFELD: So we just make a selection of sets and -

MR. KATZ: So you want a selection of sets larger than the -- larger than you will need.

MR. HINNEFELD: Okay.

MR. KATZ: So that then the DR Subcommittee at the next meeting can make that selection. And this is --

CHAIRMAN GRIFFON: Let me ask for a clarification. Why did -- Kathy or I don't know if Hans is on the line, but why couldn't SC&A do this or -

MR. HINNEFELD: It has to do with kinds of information you need to know about the case in order to make the selection.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: And --

CHAIRMAN GRIFFON: And it wasn't

accessible to them, or -

MR. HINNEFELD: It's probably not clear to them. If it's electronically available it's not clear to them how to do it.

CHAIRMAN GRIFFON: Okay, okay.

MR. HINNEFELD: And if it's -- and it may not be electronically accessible in all cases so it may involve looking at the claims. I have to go back and look at it.

CHAIRMAN GRIFFON: All right, all right, all right.

MR. HINNEFELD: We know a lot of things electronically about these but we don't necessarily try to get people to understand them. I would send it down to TST and say based on these parameters, pick these populations for me and they could do it, not like I could do it sitting it at my desk and so --

CHAIRMAN GRIFFON: No, I'm just thinking of the independence factor, that if we -- I don't want to be --

MR. HINNEFELD: Fairly long --

CHAIRMAN GRIFFON: NIOSH -

(Simultaneous speaking.)

MR. KATZ: No, but they'll be pulling a pool and then this --

CHAIRMAN GRIFFON: I think it's okay I just wanted to --

MR. KATZ: The Subcommittee will make choices and this is one where I don't think it needs to go to the full Board. This is something that can be done independently by the Subcommittee.

MS. BEHLING: Excuse me Mark.

CHAIRMAN GRIFFON: Yes.

MS. BEHLING: This is Kathy Behling. I believe that the reason we weren't able to select these cases is because we needed to know if these individuals had urinalysis samples, or if they were lung counts, or how some of the internal bioassay was assessed and we couldn't necessarily pick that out by just scanning on NOCTS. We would have had to

actually go into the various records and I thought that perhaps NIOSH could do this a lot quicker than we could.

MR. HINNEFELD: I think we probably can. It may not be on our side, but I think ORAU has some stuff that might be able to help and at any rate, it's more our thing than theirs, to be honest, to get a pool --

CHAIRMAN GRIFFON: Yes, yes.

MR. HINNEFELD: To make those selections you need a pool.

CHAIRMAN GRIFFON: I think it's fine, I just was thinking about the independence factor, so -- but I think it's fine as long as you get a larger pool and then we can select from that pool. Okay. All right. So that's done. There's no --

MR. KATZ: And that'll be on our agenda for the next meeting, then.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: It's in the -- Tom has actually specified how many we've used in

each category. We just need to pull more than that. We could pull -- we could pull everything that fits that category. I think we could. If we had to do a manual search we may not do that, but I don't think we have to do a manual search.

CHAIRMAN GRIFFON: All right. And then I had really two more items on the agenda. One is the ninth matrix and the other is the item that David Richardson brought up earlier which is sort of the question of maybe reassess where we're at with this dose reconstruction effort and what are we aiming to get out this and, one thing I emailed David during the break and I think one thing I would like an opportunity to do is go back to our original scope document. I don't know when we developed this, Wanda might have a recollection, but I think Mike was -- Mike and Bob and Wanda and I -- were the ones that were on the committee at the time, where we looked at the scope of the dose reconstruction effort

compared to the statute and the regulation.

So one thing I would offer, I mean we can discuss a little bit now, if people have opinions, but I can also pull that scope back out and ask -- put some question points on it to prompt a discussion at our next meeting. If you have particular issues now, I'd be happy to make a note of them, but I'd like to pull that out and sort of resurrect it and say where does it stand, what are we doing, and --

MEMBER MUNN: It might be worthwhile especially in view of the fact that the statute has changed at least twice since then.

MR. KATZ: But not on that point.

MEMBER MUNN: I don't believe it's changed on that point though I haven't actually --

CHAIRMAN GRIFFON: No. Right.

MR. KATZ: Well I could tell you that it has not changed --

CHAIRMAN GRIFFON: It hasn't changed

on that, right.

MR. KATZ: With regard to dose reconstructions.

CHAIRMAN GRIFFON: Okay.

DR. ULSH: What did you call that, Mark? That document you are talking about, did you --

CHAIRMAN GRIFFON: Oh, it was a -- I forget exactly what it was titled but it was the dose reconstruction review scope, so it was our Board scoping document that we developed and it talked about well, amongst other things, we had sort of this concept of basic, advanced and blind reviews and now -- so we might want to reflect back on that because obviously we haven't stuck to that. We have sort of all -- yes, they have sort of -- the case speaks to you and you sort of know what level you have to do for each different case I think, and so we haven't stuck always to these sort of principles of basic and advanced, but anyway.

DR. MAURO: Well, just the thought is that -- I think when it began, when we got involved, it was really trying to get a cross-section so that we see how dose reconstructions are being done across all these different characteristics, including types of cancer, decades, et cetera et cetera, which is still valid.

But what's happening now is that we finished -- we reviewed all the procedures. I don't even know if there are -- there may be new ones coming out but we reviewed over about 105, maybe more, procedures. We have reviewed just about every Site Profile and so what do we have in front of us now? We have a review of over 300 cases with who knows how many findings, some of which are quality findings, some of them are pointers for some procedures. We also have all these Site Profile reviews, all these SECs.

What I'm getting at is, I think they all point to each other. In other words

what we learn on this dose reconstruction, and we are only doing one percent, remember, so we are only doing one percent, there is 30,000, so 300? Yes, we are exactly at one percent.

So the idea is -- I guess what I'm putting on the table is, given that we are dealing with -- we always thought about them as separate.

CHAIRMAN GRIFFON: We also projected for 2-1/2 percent.

DR. MAURO: Oh yes. Yes. But I mean that was a number, it's a number you pick.

CHAIRMAN GRIFFON: Yes.

DR. MAURO: But we always looked at oh, we are going to do dose reconstruction orders. That was a separate task, almost like its own world and there was a procedure review, which was its own world, and the Site Profile review, which even was its own world and of course now we have the SEC, where there is definitely a blend between Site Profile and SEC.

I guess I'm thinking out loud now, but there are pointers. Like when we see something here that says well, if this has to do with OTIB-17, something like that, or this particular thing has to do with a Site Profile issue as opposed to a quality issue, is there are any linkages that we should be thinking about between what we learn in our DR review and how that -- does that tell us anything about the procedure?

I mean I'm trying to create linkages now that really haven't talked about before. Are these different activities that are going on separately, should we be stepping back and see how they link together and how they may feed back and forth to each other to --

I think Richard brought it up earlier. Let's say -- whether we have a finding from a DR review or we have a finding from a procedure review, and we start to transfer things, but you know the real big

question is, listen, we are only looking at one percent, what kind of ripple effect can this have, that is if we found this on this one case which feeds back to a particular procedure that's being affected, I guess your PER program looks at that all the time. I'm not sure the degree to which -- whenever we have a finding on this end, does it -- how does it -- and you decide whether or not you may want to redo this case or not, but it also triggers a PER process for us?

MR. HINNEFELD: Well, it would depend on whether the finding led to change in guiding documents.

If the finding is such that in resolution we said okay, this procedure or this Site Profile needs to be revised in this fashion, then ultimately that revision to that procedure or technical document would be what would trigger the PER and so it may be --

DR. MAURO: And that would bring it back to do all the cases.

MR. HINNEFELD: And it may be that it may get grouped with other, similar type of -- so you do one PER and see what's the impact of all these changes. Because you kind of have to do all the changes at one time.

DR. MAURO: So really when all is said and done, it's the PER process that really is the glue that integrates everything.

MR. HINNEFELD: That pulls findings back, yes, into -- I mean that's -- well, I don't want to oversell the PER process. The PER process takes the outcomes today, the technical discussions today and applies them to things that were done before them, so I don't want to kind of oversell the integration nature of, how much does it integrate a procedure review or a Site Profile review and a DR review, those sets of information, I don't want to oversell that, but they should -- but the endpoint, to the extent that any of those change guiding documents, things that tell us how to dose reconstruction, they

should all go back in to the PER process, but I don't know there's any particular integration process.

DR. MAURO: Well, built into the program, what is the thing that inherently is self-correcting, that is if there is something that has been done in the past, that needs to fixed, it's the PER process that catches it, and feeds back and corrects it.

MR. HINNEFELD: Yes, that's what is supposed to happen.

DR. MAURO: Right. And maybe -- I think the machinery then is in place.

MR. HINNEFELD: I mean it could be that there are things kicking around in here that need to go elsewhere that are going to have impact on Procedures that we may just go do, that the Procedures Group wouldn't necessarily know about, you know. There's that thing which would then be not an integrated effort. If the finding in here would say such and such a procedure needs to be changed or

such and such a technical information, both of them, TIB needs to be changed, and we reach resolution to change it, then that may proceed independently of the procedures review portion of the Board knowing anything about it.

DR. MAURO: The reason I --

CHAIRMAN GRIFFON: One thing -- yes.

DR. MAURO: One last point and then I'll -- see I think that this report here, it's a loop you've created here, so okay, we found some quality problems, and we tried to capture them and it was done mainly I guess through the 100 case review report, here are some of the quality problems we observed, but and I think that's certainly one side of the coin. It's very important. Here are the quality problems that need to be fixed and here's what we are going to do to fix them.

But there's this other part that I think that is equally important to this -- what are the other problems that are counting down, systemic, that is where -- what we find

out from this Subcommittee is feeding back and driving the Site Profiles, driving the procedures, just like -- this is going to feed back and drive your QA. Do we have any way in which the Subcommittee is feeding back and informing Procedures when they transfer? Are we actually trying to go through all the -- from the point of view -- is there a way to call out?

CHAIRMAN GRIFFON: Well don't forget about the way we sort of try to call out is in the summary reports and there's more than just the QA things in that summary report. We talked about the dose reconstruction report. We talked about the show your work kind of principles.

DR. MAURO: Yes, show your work, yes.

CHAIRMAN GRIFFON: Now I don't know that we have ever systematically gone back and demonstrated to what extent NIOSH -

DR. MAURO: Speaks to us.

CHAIRMAN GRIFFON: Has implemented those recommendations. That's one question. But I mean I would think the important thing for us to be able to do as a Board is to make recommendations to improve the system if we think it needs it think the first step for the QA side quite frankly is to better understand the system. I mean, you can't really make recommendations to something that I'm not exactly familiar with how it works currently and so -- but I think that's where we could maybe add value at this point, is, as we sort of -- we see at lot of similar types of findings, but when we start to think of them in aggregate, there's a fair number of ones that fall into certain bins and so we say to ourselves well, there's something that needs to be fixed and I think that we need to better understand the system to know if we can recommend a fix.

DR. MAURO: But that's from a quality point of view.

CHAIRMAN GRIFFON: Yes, that's the quality, but there's other things you are asking, yes. David, do you have any comments on this? I mean we don't have to -- this is going to -- I think this is a discussion that we can continue at our next Subcommittee and maybe look to refine or propose to refine our scope of our reviews, you know refine it based on what we have learned over several years and bring it back to the Board for approval or whatever, you know.

MEMBER RICHARDSON: Yes, I think that makes sense. I think it would be, as you suggested, useful to figure out what the scope of work is for this committee and then to move forward with the discussion from there. In addition to kind of understanding the quality assurance and kind of data collection procedures for NIOSH, I still, I would also be interested in a description of the internal processes. I mean, this Board should not be -- I wouldn't think this Board should or this

Subcommittee of the Board should have responsibility for kind of the quality assurance parts of the dose reconstruction process. I would expect that there is an internal process going on as well.

CHAIRMAN GRIFFON: Right. Right.

MEMBER RICHARDSON: So that would be useful to understand a document as well as the kind of data collection process.

CHAIRMAN GRIFFON: Yes, I think what I meant to present on how the system works, it was all the way from data entry and what the dose reconstruction does to what the quality assurance steps are, the peer reviews, the et cetera, so all aspects of it. I agree.

MEMBER RICHARDSON: Great.

CHAIRMAN GRIFFON: Anything else, I mean, this will be an evolving discussion and David, I don't even know if you have seen the original scope. I don't think I have looked at it in probably three or four years, so I think that would be my first step, is to sort of

pull that document out, circulate it with maybe some comments that I have included in it and then just bring it back to the Subcommittee for discussion, more discussion and possible modification.

MEMBER RICHARDSON: That sounds great.

CHAIRMAN GRIFFON: All right. Anybody else? Brad?

MEMBER CLAWSON: No, I was just going to say I think we need to understand the process a little bit.

CHAIRMAN GRIFFON: Yes I think it's worth revisiting especially when sitting in the wings for several years so. All right. It's 3:10. Ready for the ninth set? Can we get all the way through them in one and a half hours? What are people's time limits?

MR. FARVER: I don't know that we have anything to add to the ninth set.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: I didn't look at it

because I didn't know that we would be looking at it for this meeting.

CHAIRMAN GRIFFON: Right, right, right.

MR. HINNEFELD: Well, I mean we could perhaps talk about what we said. We said some things, right?

MR. FARVER: There's a lot of written NIOSH responses in there. I just skimmed through what I had.

CHAIRMAN GRIFFON: Okay. Do you want to -- well let me ask first, what are people's time frames for flights or anything, is there limits?

MEMBER MUNN: We're scheduled until 5, aren't we?

CHAIRMAN GRIFFON: I think -- yes, we are scheduled from 7:30 to 5 so we started a little late.

MEMBER MUNN: That was the room.

CHAIRMAN GRIFFON: Okay. I was going to say let's try to go to 4:30 because as is

always the case in these meetings, especially the temperature in here is increasing --

MR. HINNEFELD: Can we have a little break first?

CHAIRMAN GRIFFON: All right. Let's take a 10-minute break and then we'll start on matrix nine and basically get initial description from NIOSH. We're not expecting -- but at least they can describe what they included in --

MEMBER RICHARDSON: Is that something that can be circulated?

CHAIRMAN GRIFFON: The ninth set, can we -- has that been cleared?

MR. KATZ: That would have been circulated a while ago if you have that done.

DR. ULSH: It would have been April or August, 2009.

MR. KATZ: Right, in August, that would have been circulated to the -- why don't you check your --

CHAIRMAN GRIFFON: But he may not --

MEMBER RICHARDSON: I'm not sure I was on the list then.

MR. KATZ: Yes, yes, that's right. It may have missed you, David.

DR. MAURO: So you see right now we have a matrix that has each of the issues in mind that we have developed and you have partial responses to some of those issues -- they exist right now. We haven't come back yet. But it certainly would be valuable to hear the -- we may be able to resolve them right here. I mean let's see what the answers are.

CHAIRMAN GRIFFON: The responses -- you don't do things on the fly, right John?

DR. MAURO: I do.

CHAIRMAN GRIFFON: Can I ask the name of the file, Stu, that you are working from?

MR. HINNEFELD: Sure, you can ask.

MR. KATZ: If you find it, can you -- do these have Privacy Act material or can

you send it to David?

MR. HINNEFELD: These essentially never have --

MR. KATZ: Okay.

MR. HINNEFELD: A Privacy Act -

MR. KATZ: So if you could send them -- if you find it, you could send it to David, then he could follow along.

MR. HINNEFELD: Yes, okay. If I find it.

CHAIRMAN GRIFFON: All right, David, well we are going to take a 10-minute break. we'll email you. Check your email. We will send this file to you.

MEMBER RICHARDSON: Great. Thank you.

CHAIRMAN GRIFFON: Mike, do you have it or -

MR. KATZ: He should. He would be -- everybody -

MEMBER GIBSON: I have it Mark.

CHAIRMAN GRIFFON: All right, Mike's

got it. I have something that says -- we are going to -- let's adjourn for now.

(Whereupon, the above-entitled matter went off the record at 3:11 p.m. and resumed at 3:23 p.m.)

CHAIRMAN GRIFFON: Okay, like I said, this will probably be a -- because SC&A is really, wasn't prepared to discuss these items, so it's going to be more of a -- mostly overview of NIOSH's initial responses and then we will go from there but at least we can plunge forward.

MR. KATZ: Yes, and John and Doug may be able to knock some of the low-hanging fruit off.

CHAIRMAN GRIFFON: Right, right, right. If they're obvious, we can take care of it, yes. Okay, so 179.1, .2. Do you want to just discuss the ones that -- just the ones where you have some feedback, right, so 179.2. Maybe as a starting point if you can give us the site and the -- yes.

MR. FARVER: Ashland Oil.

CHAIRMAN GRIFFON: Ashland Oil?

MR. HINNEFELD: So it's an AWE site. Ashland Oil, that's I believe, in fact I think it's now an SEC site if I'm not mistaken. No, Standard Oil, sorry, Standard Oil. Ashland Oil is not. The finding had to do with not using PFG photofluorography for the medical X-rays and our response is that our going in approach is that we use photofluorography at the DOE sites where they have large numbers of people at the clinic and they turn them over really quick and we haven't reached that same conclusion at all the main AWE sites. So that's our response so far.

DR. MAURO: This -- we're very familiar with this, and this comes up every time we do an AWE. It's always in there, because your default was always an X-ray, a chest X-ray.

MR. HINNEFELD: Yes.

DR. MAURO: And I guess this is a

judgment that you folks need to make, is that are you looking for affirmative evidence? See, with the way in which OTIB-6 and 61 read, at least in the case of DOE, it's really silent on AWEs but it is affirmative on DOE. Before a certain date unless you know otherwise, definitely, presume it's a PFG. Now, you're silent in those same documents with respect to AWEs. And I can understand why, because AWEs, you have a contract, unless the contract calls for -- this is the way I was thinking about it -- so am I correct in saying, if the contract called for X-rays and/or PFGs, you would then apply the DOE philosophy, that is we are going to assign PFG if you don't know any better.

I mean, I'm trying to get to understand this. Automatically I think you always assume it's X-ray. You always give that. You give that. But you don't automatically assume it's PFG -

MR. HINNEFELD: Yes.

DR. MAURO: and it seems to me the

distinction is why?

MR. HINNEFELD: Well, it had to do with some research that was done, and I'm not real familiar with it, but it had to do with standard X-ray practices at the time and that most clinics that were giving X-rays were using chest X-rays and that the photofluorography units were brought in from places to do a large number of them in a quick period of time -

DR. MAURO: So DOE was unique in that regard.

MR. HINNEFELD: DOE, we felt like --

DR. MAURO: They wanted it. They asked for it.

MR. HINNEFELD: They did a whole bunch of them. This was a way to do a lot of them quickly and so they did photofluorography and AWE is more likely actually if they have a clinic on -- if they have a medical facility on site, they just have an X-ray unit as opposed to photofluorography. That's the

thought process. I don't -- I'm not familiar with the research --

DR. MAURO: Okay that's very helpful. Because that's the reason I say that, I mean, that's just something we talk around the table and I could -- I just presume that's probably the case. But I always bring up that finding, every time.

DR. ULSH: Well, and I think the main -- a common use of PFGs, since they are mobile units, was for TB screening and that's why they brought them on site, to run all the employees through. Now if you think of an AWE, and I don't know if there's a typical one, but frequently they are small operations.

DR. MAURO: Yes.

DR. ULSH: And it wouldn't be justified to bring screening on site like that for a few people. But I mean, if we do have affirmative evidence that --

DR. MAURO: Then you do it.

DR. ULSH: Of course. But that's not

the default assumption.

DR. MAURO: I mean as far as this issue being resolved, the degree to which I think that statement could be made even on a generic basis in OTIB-6 or in 61, or be stated in the Site Profile for an AWE site, which it really isn't. We made the judgment that at this facility, PFG was not either required -- in other words the degree to which you could say that -- then we could sort of -- then we could sort of -- then we don't have to put this comment forward. Because right now --

CHAIRMAN GRIFFON: Can I -

DR. MAURO: Do you see the --

CHAIRMAN GRIFFON: Can I propose an action?

DR. MAURO: Yes.

CHAIRMAN GRIFFON: NIOSH will provide the background study information that indicated that the standard chest X-ray was the practice of the time. If acceptable to SC&A and the Subcommittee. NIOSH will modify

TIB-6 to reflect this as a standard practice in the dose reconstructions. In other words, Stu said there's background information, he's not sure what it is, I think we need to just get a better flavor -- yes, okay, we see how you are supporting this.

DR. MAURO: We just resolved one of your comments.

MEMBER MUNN: Yes, TIB-6 seems to be the appropriate place --

CHAIRMAN GRIFFON: Assuming we all agree with that then you just modify TIB-6.

MEMBER MUNN: That's the right place for it to go. Otherwise you have to lay your hands over each TBD that you've got.

MR. KATZ: I think this was discussed, this very same discussion occurred during the TBD-6001 Work Group last week, in reference -- we just had this discussion -- yes we did -- to one of the AWEs covered their Hooker or whichever -- we had this exact same discussion and the same I think recommendation

was made there so this is fine, but I think we may have already gotten a sort of tasking for DCAS on this in that Work Group.

DR. MAURO: So does this transfer to --

MR. KATZ: This is fine, it's just a double hitter.

CHAIRMAN GRIFFON: Yes, it might be a little redundant, but yes.

MR. KATZ: It's not hurting anything. It's fine.

DR. MAURO: OTIB-6?

CHAIRMAN GRIFFON: Yes. Okay.

MR. HINNEFELD: Okay. Next one we have a comment on or response on --

CHAIRMAN GRIFFON: This is 180.1.

MR. HINNEFELD: 180.1.

CHAIRMAN GRIFFON: What's this site?

MR. SIEBERT: Bridgeport Brass.

CHAIRMAN GRIFFON: Hold on. 180.1.

MR. FARVER: Oh, I had 181.

CHAIRMAN GRIFFON: Oh, okay. So it's

Bridgeport Brass. Okay.

MR. HINNEFELD: Okay. The finding is reviewer questions accuracy of the employment period identified by NIOSH/DOL and our response is that we don't identify the employment period that's identified by DOL. Apparently there is some comment, maybe from the employer, that they have transferred to another site, to another AWE site and so DOL didn't have that information. I presume we sent that information to DOL for them to see if they could verify it, so that would be for us to follow up and make sure that we did that.

Because normally when someone tells us that like in an interview or if we get information along those lines we say well, we tell them first of all, you need to get information about that to DOL and then we also will let the DOL know. But our telling DOL that the claimant told us that is not going to change it. And DOL will take no action because

we told them that. It's incumbent on the claimant to get the information to DOL in order to get the employment changed and we tell them that too.

CHAIRMAN GRIFFON: Doug or John, I don't know if you want to --

DR. MAURO: Well that's not -- that's not a Site Profile issue. That basically is an issue dealing with this particular case.

CHAIRMAN GRIFFON: It's a case specific.

DR. MAURO: It's very case specific and it's almost not in your hands so you are just passing on information.

MR. HINNEFELD: When people tell us that we say we'll tell DOL but you need to tell them and to give them the information because they won't -- just because we tell them you said it, that's not going to change anything.

CHAIRMAN GRIFFON: Well is there any

indication in this case though that NIOSH did identify it and relay it to DOL? I don't know the issue.

MR. HINNEFELD: I don't know if we would capture that or not.

CHAIRMAN GRIFFON: Right okay.

MR. HINNEFELD: There might be. Let's see. We can look for evidence of having done that but --

CHAIRMAN GRIFFON: I mean, not fully understanding, from the summary so it's hard to --

MR. FARVER: Yes I don't understand what exactly prompted the finding. The only statement in there is that the worker may have continued working at the Seymour facility.

DR. ULSH: It might have been CATI. I don't know.

DR. MAURO: It could have been CATI. Yes.

MR. FARVER: But there's nothing down there in the CATI section of our report.

CHAIRMAN GRIFFON: Well, I mean I guess I would -- I don't want to be hastily -- I mean we don't do anything hasty, but I think SC&A should look at it closer and --

DR. MAURO: Well I mean we made a finding that the time period over which you have derived this fellow's dose needed to be compatible with what we know to be his employment period, or believe to be his employment period, right, is that what the issue us?

CHAIRMAN GRIFFON: Well, there's actually just a suspicion.

DR. MAURO: A suspicion.

CHAIRMAN GRIFFON: Not even a belief, there's a suspicion about it.

DR. MAURO: I mean it will be in the write-up, the basis for it, I'll have to look at it.

MR. SIEBERT: There seems to be an incongruity between the worker's period of employment at Havens Laboratory and the

operational period of the laboratory. The worker may have continued working at the Seymour facility. In any event this worker was employed at the Havens Laboratory during the entire time period the facility was involved in experimental uranium work. As a result of the worker's employment at the plant, the worker may have experienced external and internal exposures from working with and in the vicinity of uranium and thorium.

CHAIRMAN GRIFFON: Oh, so that's not a DOL question, is it? Isn't that a question of the amount of time you applied to the dose reconstruction? Doesn't that seem to be --

MR. HINNEFELD: I couldn't tell from that what it was.

CHAIRMAN GRIFFON: I know.

MR. FARVER: It's not clear.

MEMBER MUNN: It's still a DOL question. DOL has to identify whether this person did or did not transfer to another AWE and what the total period of employment was.

MR. SIEBERT: Right. The claim was assessed with the employment as given to us by DOL.

CHAIRMAN GRIFFON: Okay. Okay. Yes.

DR. ULSH: I mean, I agree that if we thought that there should be additional information then we should tell DOL. But we can't -- that's not a DR finding. I mean we did the DR in accordance with the employment information provided by DOL.

DR. MAURO: I could --

CHAIRMAN GRIFFON: No but I think it should have triggered at least NIOSH to inquire with DOL.

DR. ULSH: I understand and it might and we can check on that, but that's not in and of itself, that's not a deficiency. Even if we didn't do that, that's not a deficiency with the DR. We have to do the DR with the employment information that DOL gave us.

MR. HINNEFELD: See, there were things in this claim file that should tell us

a little bit about what the claimant said about the employment and one is their application to the program, the original claim that they filed, they list their facility, they covered where they did their work at, it's listed on their claim and then theoretically there was a telephone call that said, that asked among other things is this the actual employment.

So I mean we'll see, we'll go back and look but there should be some evidence somewhere of where this came from, and I couldn't read from the finding whether -- there's more discussion after the statement of the finding so it might be there, but it didn't really understand from that exactly why they felt like there was as reason to question them.

DR. MAURO: He could have left that facility at that time, went somewhere else where he could have gotten some exposure there also that may have been something. I think

this is -- this rings a bell and therefore there is some dose that this experienced not while he was at Bridgeport Brass but approximately after he left and went some place else that wasn't captured, and that would go towards his dose reconstruction that should have been. I think that's the point. Now, and if that's the case then maybe there's something else that might have been missed.

MR. HINNEFELD: We'll go look and see what we can sort out on it, but today we are not --

CHAIRMAN GRIFFON: No, I'm not asking that, I'm just trying to understand it better. But I think SC&A should look back at this one. I think both need to look back.

DR. MAURO: Okay.

CHAIRMAN GRIFFON: You know, review this, because we need to understand what the real basis was.

DR. MAURO: Doug, if you could keep track of those and just kick it back to me,

because that sounds like one that will come back to me.

MR. FARVER: Oh yes, you are going to get all the AWEs.

DR. MAURO: I'll pick them up in there.

CHAIRMAN GRIFFON: Okay, the next one we say anything about was 183.1 and the finding is the model external photon dose appear to be bounding but transparency is lacking regarding calculational details in the DR and in OTIB-4. So OTIB-4 is apparently what was used, which is a complex-wide overestimating for AWEs.

NIOSH agrees on the lack of clarity in the OTIB on how the organ DCF were applied to develop the dose in the dose table. NIOSH agrees with SC&A that the dose is bounding. The next version of the OTIB, which has been issued, did not have the organ DCF already built into the dose tables, dose reconstruction is applied then to the values

in this layer version.

So this issue has been addressed, the issue being lack of clarity in the OTIB. NIOSH does not agree that the organ selection was unclear. The end of the second paragraph of the dose reconstruction overview section states the external dose to the kidney was determined by using the dose to the liver, following the guidance in OTIB-0005.

We can't say, I mean, I'm not expecting a response.

CHAIRMAN GRIFFON: Right. Right. Sounds like we've had something related to this but -

MR. HINNEFELD: Okay, 183 --

CHAIRMAN GRIFFON: Yes we'll just skip --

MR. HINNEFELD: Two is our golden oldie, that yes, we agree, we screwed up. Okay, 183.3 is the photofluorography AWE question again. The same one we talked about earlier.

MR. FARVER: You could probably close out 183.2. I mean there's not anything more to do on that.

MR. HINNEFELD: Yes I mean everything is done on .2 that we are going to do.

CHAIRMAN GRIFFON: So give me a closeout statement. What is it? It's NIOSH has revised --

MR. HINNEFELD: Discontinued its practice. I mean that's the using OTIB-4 for compensable findings.

CHAIRMAN GRIFFON: Oh yes, yes, yes. That's closed.

MR. HINNEFELD: Okay. 183.4. Dose from external surface contamination may be based on modeling assumptions that are not claimant-favorable. We refer to this as a global issue but I think we may want to take another look at that because I think a lot of this has been sorted out in TIB -- was that TIB-70?

DR. MAURO: So this is external exposure to surface contamination?

MR. HINNEFELD: This is dose from external surface contamination may be based on modeling assumptions that are not claimant-favorable. It doesn't say whether it's --

DR. MAURO: Okay, this is the accumulation, this is the settling velocity. We have resolved that.

MR. HINNEFELD: Resolved somewhere else but we need to update our response.

DR. MAURO: That issue has been resolved generically in our procedure -- OTIB review of the -- I'm trying to remember -- the one that has accumulation on the surfaces. That might be TBD-6000.

Because this is where you have a 0.00075 meters per second settling down accumulation and we had a question that you really shouldn't do it that way but then you proved it by showing Adley.

We did this as a generic -- this is

an issue that will close out probably 20 or 30 findings just like that.

MR. HINNEFELD: So we are going to change our response.

DR. MAURO: We've closed based on global resolution. You may want to make reference to David Allen's White Paper which proved that that works. He put out a White Paper on the subject.

CHAIRMAN GRIFFON: Yes, I remember that. That's separate from the -- I was mildly convinced. I happen to have the Adley report with me.

DR. MAURO: I was surprised.

CHAIRMAN GRIFFON: Anyway.

MEMBER MUNN: Yes. We did it.

CHAIRMAN GRIFFON: You should check to see if that's finding is closed in the procedures. I don't think it's closed.

MEMBER MUNN: I don't think it was.

CHAIRMAN GRIFFON: I think there might be a hold-out vote. I think I know who

he is. No, maybe I went with that one. Maybe I finally was convinced on that one.

MR. HINNEFELD: Okay, 185.2.

CHAIRMAN GRIFFON: Hold on, can I go back to 183.3 I missed because I was trying to catch up with --

MR. HINNEFELD: Okay. 183.3 is yes, PFGs at AWEs -

CHAIRMAN GRIFFON: Oh, okay.

MR. HINNEFELD: 179.2.

CHAIRMAN GRIFFON: So bear with me. I'm just going to copy that same -- okay.

And John, you think this 183.4, I know the discussion, it was a trust enclosed in TBD-6000 discussions or in the procedures?

MEMBER MUNN: I can't remember which place we did it but we have a procedure. There is a procedure in which this is specifically addressed and quantified.

DR. MAURO: And we went through it and a White Paper was written and I'm pretty sure it was TBD-6000 and David Allen wrote a

White Paper. Because my main -- I find it hard to believe that the only way in which surfaces could get contaminated at a uranium handling facility is just from the small, five-micron particle settling out of the air. I had this model in my head that the guy was over there with a lathe, and big particles are flying all over the place, but it turns out, we went to the Adley report, where they were doing all that and we actually had deposition rates and David did the calculations and we checked them and they were right on target. In fact the way in which you modeled that deposition velocity resulted in a slight overestimate. So we -- I was very surprised to tell you the truth. But SC&A's recommendation is that issue is resolved, whether or not it's still open, you know, that's a different matter.

MEMBER MUNN: No, we have resolved it.

DR. MAURO: We did resolve it. You found it there?

MEMBER MUNN: No. No.

CHAIRMAN GRIFFON: I think my hesitation -- I might have finally given in on that one, but my hesitation was the Adley report was one -- it was this is all based on one study in the -- late, early 50s.

DR. MAURO: 50s. It was done at the uranium metal melt facility in Hanford where they study the problem.

MEMBER MUNN: It was quite thorough.

CHAIRMAN GRIFFON: Again, that was my hesitation. I might have given in. So I would just say SC&A agrees then well, if Wanda can sign that I could say closed in Procedures Subcommittee and put the procedure number. Let's move on while Wanda is looking for that. 183 -- no, no more in 183.

MR. HINNEFELD: I think the next one is 185.2.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: The finding failed to properly account for model photon doses.

Our response is I think that SC&A do not provide the details of the MCNP calculation therefore NIOSH cannot comment on why there is a difference in the calculated values.

DR. MAURO: Which site was this?

MR. FARVER: Huntington Pilot Plant. Has to do with the enriched uranium in the bird cage.

DR. MAURO: Oh, the bird cage model. Yes, sure I remember that. Bob Anigstein made a run, check your numbers, we did not get your numbers.

CHAIRMAN GRIFFON: So can SC&A provide you a calculation?

DR. MAURO: Let's mark that down, we'll provide our -- just send them over, we'll get to show you -

CHAIRMAN GRIFFON: That's an SC&A action, to provide their --

DR. MAURO: Yes, I think we ended up with a higher dose than you guys.

CHAIRMAN GRIFFON: All right. 185.5.

MR. HINNEFELD: 185.5 is post-operational intakes from ingestion were not explicitly included in the dose reconstruction. Our answer is, post-operational intakes are covered in the residual section. The TBD indicates that the annual dose to the maximally exposed organ was less than one millirem and therefore was not included. When the ingestion intakes are run, all the committed dose equivalents are less than one millirem.

DR. MAURO: We'd have to look at that.

MR. HINNEFELD: And we've got some we didn't say anything about. Okay, we're up to 186.1. The internal doses are likely to have been understated. Now certainly there's more to it than that. Our answer was the claim was compensated based on the dose assigned so there was no need to determine if additional exposure may have occurred. So essentially, we terminated the dose reconstructions because we

had a compensable claim.

DR. MAURO: The only thing I would say is that when you -- normally do the calculation you would stop at that point and compensate, but you may have included the dose for whatever the pathway was and we reviewed it because it was there and maybe had a comment on it. When you cut the calculation short, we are not critical. We don't say you shouldn't have done this. But anyway so I'd have to look at it.

MR. HINNEFELD: Yes take a look and see and if there's more to it let us know.

MR. FARVER: It doesn't look like it was cut short. It just looks like we didn't agree with the way it was done.

DR. MAURO: Do you know what it was?

MR. FARVER: Linde Ceramics.

DR. MAURO: Oh, Linde -- from what pathway? You can't tell? It wasn't a resuspension factor issue?

MR. FARVER: Has to do with assumed

dust exposure of 33 MAC may not have captured the upper bound of the airborne dust exposure at the Linde Site from 1947 onwards, so there was a little disagreement in the air concentration level, things like that.

CHAIRMAN GRIFFON: 187.3.

MEMBER RICHARDSON: Can I go back to that? Are we closing that because it has no impact on this dose reconstruction? It's a TBD issue is it not?

MR. FARVER: We didn't close it, did we?

DR. MAURO: Could I just point out something? A lot has developed on the Site Profile for Linde and the methods that you may have employed at that time may be somewhat different than what has been adopted because you did make some revisions to the Linde way in which you are calculating the doses I believe.

MR. HINNEFELD: I think so.

DR. MAURO: And so --

MR. HINNEFELD: It depends on what time the claimant is from really.

DR. MAURO: We'd have to look at that.

MR. HINNEFELD: Right, so we'd have to look at that.

MEMBER RICHARDSON: My point is once again, this is not a dose reconstruction error. It was done correctly per the information that was in the dose reconstructor's hands at the time. If there's an issue with the TBD that's been addressed or so on and so forth, I still -- and this was already compensated, I don't see where -- I guess I don't see the purpose of leaving it open. I mean that's --

MR. HINNEFELD: Without the issue with the Site Profile remains open here because those are things -- that's part of the review. It's not only did we follow the procedure but are the procedures or the instructions for doing the dose reconstruction

correct. That's part of all these DR reviews. So that wouldn't close it. It might close because of a compensable claim if you think it should be higher.

DR. MAURO: Let me raise a dilemma that SC&A has always had in doing our DR reviews. When we review a DOE site, we review it explicitly against your own procedures, did you follow your procedures. And any findings we might have related to your Site Profile, we keep those separate. Okay, we just make a list, here are the findings we had on your Site Profile, Savannah River, and then the review goes on to see if in fact you followed your own procedures, whether or not we agree with those procedures.

Now, for AWEs we don't do that because AWEs are a different beast. They are all based on the Site Profile, so we will have findings. In DR review for an AWE facility, that goes toward the Site Profile. It would be a finding. So you are right, Scott, what you

are saying is correct. Most -- just about every AWE review that I do, it's basically a comment on the Site Profile, when I do -- so does that mean do we want to address it here? Do you want to transfer it over? But there isn't a Site Profile review. In other words, there are an awful lot of exposure matrices that we haven't reviewed, but I review them when I do the case, so what else -- I mean there's no place to have a finding.

MR. SIEBERT: No, no, I agree, I'm backing off because I was thinking that there was a Linde TBD review.

DR. MAURO: Oh there is.

MR. SIEBERT: And if there was not, then I make no sense. Never mind.

DR. MAURO: But there is. There is a Linde and what I'm -- all I'm trying to say is that whenever I have an AWE site, I review that including its Site Profile, and if there are things in the Site Profile that I feel as deficient, I will make that a finding and put

it in. One could argue I should just simply say this is a Site Profile issue but I don't, because usually that's all there is. There are no bioassay data. There's just the -- so. And we have been arguing -- because then there are no comments on any AWEs because they are all based on some generic protocol laid out and therefore the only thing there is, Site Profile, but we are not reviewing the Site Profiles. So where do you capture it?

Sometimes we do, sometimes we don't.

CHAIRMAN GRIFFON: No. right, right.

DR. MAURO: So what do we do?

CHAIRMAN GRIFFON: I think this is open in both regards. I see Doug -- I don't know that we have consensus that SC&A agrees that it was done right based on the data you had.

MR. FARVER: I don't know. You really have to go back and look at the cases.

CHAIRMAN GRIFFON: Yes. So I think

we need to leave it open for both those issues.

DR. MAURO: The question I have for this group here though is, now that we have a finding on a case for Linde. Should that -- whatever that issue is, it is, should that be handled here or should that be handled in the Linde which is meeting on Friday? The Linde Work Group.

CHAIRMAN GRIFFON: Well I just said that Doug is shaking his head when he said that -- when he heard that it was done correctly based on the data you had. I'm not sure that you don't have more to look at. If there's an existing Work Group, we've always said defer the Site Profile issues to the Work Group, if they're Site Profile issues.

DR. MAURO: In this case there is.

CHAIRMAN GRIFFON: There might be a case question here.

MR. FARVER: There might be a case question.

MR. SIEBERT: I just want to point out, the summary conclusions for this one, from SC&A said, in general, SC&A found that the dose reconstruction report followed NIOSH policies and procedures and the calculations were performed correctly.

Our review identified one issue related to findings previously identified in the TBD. This issue did not have a large impact on the dose reconstruction for this individual.

My issue of when I read the conclusion it says there isn't a problem with this. It was a TBD issue. And if I'm being a pain, stop me.

CHAIRMAN GRIFFON: No, no, no I think it's simple enough to answer though. I think we can just say Doug find out. If that's the case, if that's the case, and we'll just refer it to the TBD group, or to the Work Group.

MR. HINNEFELD: The answer today is

that SC&A hasn't seen this thing --

CHAIRMAN GRIFFON: Right, right. I don't want to do this on the fly and get it wrong. That's all I'm saying Scott. If that's right then we'll just refer it to the Linde Work Group and it'll be out of this committee.

MR. SIEBERT: That's fine.

DR. MAURO: Just to put a period at the end of it all, let's say it turns out that the comment -- I'm sorry, I'm sorry --

CHAIRMAN GRIFFON: Let it go.

DR. MAURO: I can't let it go. If the comment is on a case that is based upon an exposure matrix that we have never reviewed when it doesn't --

CHAIRMAN GRIFFON: That's different.

DR. MAURO: That's different. I wanted to hear that. That's all. That's different and then it is dealt with here.

CHAIRMAN GRIFFON: Right.

DR. MAURO: Good.

CHAIRMAN GRIFFON: That's what we

said. That's what we have -- I've called mini Site Profile reviews, if we have an existing Work Group though looking at the Site Profile, then we defer to that. That's sort of been what we have --

DR. MAURO: Good.

CHAIRMAN GRIFFON: The policy, maybe not written or spelled out but yes.

DR. MAURO: I just wanted to hear it again, okay.

CHAIRMAN GRIFFON: Okay. 187.3.

MR. HINNEFELD: Okay, finding is that there is no indication in NIOSH records or the dose reconstruction report that the EE's employment started in 1949 was investigated or considered. Our response was that DOL verified employment using social security records beginning in 1950. Film badge records were found for the employee in 1949. So that year was added during the assessment. There's no records for verifying before 1949 and besides that's a DOL thing anyway. So you

guys can see what you think.

MR. FARVER: And this is based on some information that was in the CATI report apparently. The EE went into the military, and on leaving the military returned to Vitro Manufacturing Company in 1950. So that's where the little -- that's what prompted the finding.

So I don't know how you confirm or invalidate something like that.

MR. HINNEFELD: We don't, if the DOL doesn't verify the employment, we can't do anything about it anyway.

CHAIRMAN GRIFFON: So the covered period was prior to `49.

MR. HINNEFELD: This was, the covered period started very early I think.

CHAIRMAN GRIFFON: Yes. But the employment period was not back to the earliest date of the covered period right, that was the issue?

MR. HINNEFELD: And that was the way

would read this.

CHAIRMAN GRIFFON: They are questioning whether he was employed, he or she was employed. Okay. And that again to me would be a question of did NIOSH follow up with DOL at all because I think from the claimant's perspective, they just want, and I think we all just want to get the right answer for the claimant so you know, you can say well not my job or you can at least say we`ll we can't define that but we can at least notify DOL.

MR. HINNEFELD: We can do as much as we can do.

CHAIRMAN GRIFFON: Right, exactly, and that's what I think we want to know, is did NIOSH look at this enough to say yes, this might be an issue and DOL needs to answer this for us.

I would say the action would be for NIOSH to determine whether any communication with DOL was achieved or whatever.

That fair Stu?

MR. HINNEFELD: Sure, I'll see what we've got on it.

CHAIRMAN GRIFFON: Yes, yes.

MR. HINNEFELD: And just because it's such a novelty I will mention that there are now three cases in a row where there were no findings. How did that happen?

CHAIRMAN GRIFFON: Oh wow, yes.

MR. FARVER: We were having a bad day.

CHAIRMAN GRIFFON: They renumbered them.

MR. HINNEFELD: Okay the next finding is 192.1.

CHAIRMAN GRIFFON: 192.1 or 193?

MR. HINNEFELD: I got 192. The finding is NIOSH underestimated the greater than 15 keV electron shallow dose for 1955 and our response is essentially you are right, it's 60 millirem, it was submitted from data entry and we have a slight increase in PoC of this compensable case so it's not going to

have any effect on the case.

CHAIRMAN GRIFFON: So I guess SC&A's point would be this is a QA issue, right?

MR. HINNEFELD: Yes, I mean that's what it involved.

CHAIRMAN GRIFFON: I assume you would accept that right, yes, yes. No further action.

MR. HINNEFELD: Well, specifically it's going to get caught in our general debate.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Next is 192.2.

CHAIRMAN GRIFFON: You threw me off because you went with black font on these and the other ones are in red. Is it that way on your screen?

MR. HINNEFELD: You know what, I have such a hard time seeing red because of my color vision that I don't --

CHAIRMAN GRIFFON: Oh, okay.

MR. HINNEFELD: I put stuff in red

for other people's benefits, not for my own.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: 192.2, the finding is basis for intakes not included in records. Our response is the file translated input to IREP included the results of the IMBA runs performed in the bioassay results provided by DOE. While, the 25 IMBA files were inadvertently left out of the claim file, the results can be recreated based on the file identified above. So, I guess the finding was that the IMBA records weren't there and the response was that well, the IMBA files weren't there but there's enough information in the calculated input to IREP that you can tell what was run on IMBA, apparently is what the response is, so that's just for you guys to evaluate if that's really true when you look at it.

CHAIRMAN GRIFFON: Right. Is this -- I'm not sure if this is essentially a show the work thing or --

MR. HINNEFELD: I have -- well we have to go back on this. There might be more to the findings.

CHAIRMAN GRIFFON: Right, okay.

MR. FARVER: I believe what happened was the IMBA runs were not included, as you said, and therefore you could not verify the intakes. They were calculated.

CHAIRMAN GRIFFON: Okay. So is there an action on anybody's part? NIOSH -

MR. HINNEFELD: Well I mean --

CHAIRMAN GRIFFON: Do you provide those?

MR. HINNEFELD: Well, I think SC&A should look and see if the file that we saved, you know there is a file there that says these are the intakes.

DR. MAURO: There's enough information for us to do that.

MR. HINNEFELD: And what the response says was that file includes enough information, and not only includes the intake,

it includes what got us to the intake. Now I don't know if that's true or not. That's what we conclude from this.

CHAIRMAN GRIFFON: All right. All right.

MR. HINNEFELD: If not then the IMBA intakes presumably should be made available.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: Well, in general, should they be included in the record?

MR. HINNEFELD: Well I think that's part of show your work, I think so although there's 25 of them but I'm not exactly sure what that means. Sounds like an intimidating number of IMBA runs.

MR. FARVER: Yes.

MR. HINNEFELD: Sounds like this thing took them like a month to do. But okay, we'll go find out. For right now, I think it's provide a response --

MR. FARVER: Sure, sure, these all go back to me and we'll have responses by the

next meeting I hope.

MR. HINNEFELD: Okay and here's an observation we responded to. Observation number 2. SC&A believes that NIOSH overestimated the skin dose. Our response is the entrance skin dose was assigned based in insufficient information regarding the exact location of the skin cancer of the scalp and the position of the head during the X-ray procedure. Project guidance at the time of the evaluation indicated that entrance skin dose was to be assigned. The assumed minimal collimation of the X-ray beam was a factor in making the claimant-favorable decision.

So apparently with a cancer on the scalp, we used the entrance dose which would mean that we considered it in the beam and the observation was the head's not really in the beam of an X-ray and this would have to be a particularly old claim for our response to matter but early on, we hear repeatedly that they just didn't collimate X-ray machines

early on the way they do now, and so you could very well have had a broader beam and we don't really know where on the scalp. It could have been here on the scalp.

DR. MAURO: This case might have been done before OTIB - PROC 61 --

MR. HINNEFELD: May have been.

DR. MAURO: Which provided a very nice way in which you could adjust for where the skin cancer was observed and then maybe they just went ahead and went with the --

MR. HINNEFELD: It may have just been they said we don't know for sure if it-- maybe it's here or maybe it's here we don't really know.

DR. MAURO: So you gave it closer to the beam.

CHAIRMAN GRIFFON: It's just an observation anyway which I always had a hard time understanding how we treat them in our matrices, but any comment on that Doug or do you want to follow up on it or? I mean it

looks like --

MR. FARVER: It's an observation. We can probably let it go.

CHAIRMAN GRIFFON: Yes. I mean do we know --

DR. MAURO: We overestimated it.

CHAIRMAN GRIFFON: Yes overestimated.

DR. MAURO: And this was compensated.

CHAIRMAN GRIFFON: Was it compensated? Anybody know if 192--?

MR. SIEBERT: Over 50 percent.

CHAIRMAN GRIFFON: Over 50 percent?

DR. ULSH: Is it like way over, is this the thing that put it over?

MR. SIEBERT: No, I mean, well, it's hard to say what put it over, but it was at 50.22 percent.

MR. HINNEFELD: Yes, but it's probably not complete.

CHAIRMAN GRIFFON: Yes, it could

have been partial.

MR. HINNEFELD: You have a poorly-collimated beam and your decision is, if I decide it's collimated, and I didn't expose his head he's out, but it could very well not have been collimated and the cancer could have been here and we don't know. We don't know if it's in or out.

CHAIRMAN GRIFFON: Do we know when this was done relative to PROC 61?

MR. SIEBERT: Yes it was done in September of `05. Procedure 60 was initially available in 2004 but there were huge updates and I believe this is one of the updates that happened in 2006. It was relatively generic prior to that and I think what Doug was talking about the nice explanation on how you can figure out between, that happened after 2005.

CHAIRMAN GRIFFON: So I guess the one issue, I mean we always focus on the ones below 50, this is one that is very slightly

over 50 where we are being too claimant-favorable, which is something we haven't dealt with a lot in our discussions but -

MEMBER MUNN: Increasingly.

CHAIRMAN GRIFFON: Yes.

DR. ULSH: So what's the status?

CHAIRMAN GRIFFON: I'm not sure.

MR. HINNEFELD: Well I wouldn't close it. Let's let SC&A look at it and made a response.

MR. FARVER: It's an observation. It was probably made an observation because it was a compensated case.

CHAIRMAN GRIFFON: And I think we should probably say since the time that this dose reconstruction was completed, PROC 61 has -- I think we might want to reference that PROC 61 is the updated way of doing this dose estimate.

DR. MAURO: Which could have resulted in a lower dose but at the time it was the right way to do it. You're not going

to reverse that decision.

CHAIRMAN GRIFFON: You're not going to reverse it, right. It's just pointing it out, pointing it out that it may have -- yes.

MR. HINNEFELD: Did you want to write that or did you want to -

CHAIRMAN GRIFFON: I'll try to write it.

MR. HINNEFELD: Good.

CHAIRMAN GRIFFON: You said `05 it was done in `05, Scott?

MR. SIEBERT: Correct.

CHAIRMAN GRIFFON: It's PROC 0061, right? Okay. All right. Okay. And there's no further action on this. So is the next one -- are you okay to move on?

DR. ULSH: No further action, did you say?

MR. HINNEFELD: Yes, he said no further action.

CHAIRMAN GRIFFON: Right

MR. HINNEFELD: It's an observation.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: Okay, 193.1. The finding is failure to properly reference procedure used in determining the photon dose. Our response is we agree that OTIB-17 should have been referenced but as SC&A points out, the correct method from this document was used. So we used the method from the document without referencing the document. That's what we said. I guess that SC&A can go check and make sure that's true since no one has seen these for so long.

MR. FARVER: No, that's okay, we can close that one.

MR. HINNEFELD: Okay.

CHAIRMAN GRIFFON: Okay, that's closed.

MR. HINNEFELD: And 194.1. The finding is unable to confirm source of photon uncertainty applied to the skin cancer. Our response describes the origin of the photon uncertainty and says that the correction

factor of 1.43 is a combination of two correction factors. For section 6.5 -- I'm not sure what -- there is a correction factor for film badges pre-1985 of 10 percent for low energy photons and that means below 250 keV. The second factor is the standard dosimeter uncertainty for film badges is 30 percent.

So in this case, for both the less than 30 and the 30 to 250 keV energy bands, you have 1.1 which accounts for the 10 percent underestimate times 1.3 which is the uncertainty. That gives you 1.43. But the greater than 250 keV energy band, you just have 1.43. So it's a blended -- it's not the same for all the energy bands.

DR. MAURO: I got it. I got it.

MR. HINNEFELD: So that's our response.

MR. FARVER: I'll just go back and check.

CHAIRMAN GRIFFON: Yes. That's worth reviewing. But you don't know, for section

6.5, it's not TIB-10.

MR. FARVER: Automatically it's a TBD.

MR. SIEBERT: It's the Fernald TBD.

CHAIRMAN GRIFFON: Fernald TBD, okay.

MR. HINNEFELD: See, 194.2, the finding is the annual X-ray exam doses are not assigned and reviewer could not reproduce the occupational medical dose. Response is, SC&A is correct. This report is an error. The employee's X-rays of record were applied not the annual X-ray. So apparently the report said we used annual
X-rays when in fact we used the actual X-ray. Kind of a QA sort of thing.

DR. MAURO: I've got a question. When you have the X-ray records for an employee and let's say it's less than once per year, whatever you have you have, but if you went to the once per year you would give him a higher dose. What do you normally do? Do you

normally just go with the limited number of measurements or automatically just default to the higher one?

MR. HINNEFELD: We use the X-ray records.

DR. MAURO: You go with the X-ray records. Okay.

MR. HINNEFELD: Yes, especially if you are doing a best estimate. I don't know if this is a best estimate or not but in general there's a preference for best estimates unless the overestimate saves you a lot of time and so we use the medical record.

MR. SIEBERT: Yes, and this was a 46 percent so it would have been best estimate.

DR. ULSH: It's not clear to me that that's the situation here. It might be. But it might be that the actual record gave it more frequently. I don't know without looking at it.

MR. HINNEFELD: Well, there is more to our response, it looks like.

CHAIRMAN GRIFFON: No, that's the next finding.

MR. HINNEFELD: Oh, okay. All right.

CHAIRMAN GRIFFON: Does SC&A need to look back to this?

MR. FARVER: Well, what we can glean out of this is the DR report said that X-rays were calculated annually but in fact they weren't. It was only for 12 of the 17 years of employment because that's what there were records for.

CHAIRMAN GRIFFON: Ah, yes.

MR. FARVER: But the tables in the TBD say to use a certain frequency annually so which do you go by? The records or the TBD? And --

CHAIRMAN GRIFFON: What do you do for this?

MR. FARVER: It depends on the site. I know but then you have to go back to the procedures and the documentation and each one -- sometimes it says use the record or

sometimes it says use the frequency for all cases. And sometimes you just use the table's frequency for maximum or something and for best estimates you use the records, but you have to go back and look at the documentation and find out exactly what the tables say.

DR. MAURO: This could flip on that.

MR. FARVER: But they used the actual records. The DR said they did it for every year but they only did it for 12 out of 17 years when they had actual records.

DR. ULSH: So is this an SC&A, SC&A considers NIOSH response?

MR. FARVER: This is back to us.

MR. HINNEFELD: On 194.3 we wrote a book. The finding was reviewer questioned whether dates of intake for fitted uranium dose are claimant-favorable. Our response was the comment that the assessment is not consistent with OTIB-60 is not applicable since this assessment was done in 2005 and OTIB-60 was issued in 2007, so apparently

that's part of the finding.

The shifting of the intake date to account for the October 29 sample would not have resulted in a significant change to the assessment. So there's a lot of information associated with finding we don't have here. The two high samples in late October were boxed in by two samples at the employee's baseline on November 27 and November 1. Therefore the resulting three-day chronic intake was estimated with an acute intake at the mid-point of a chronic intake. The use of the day before as the intake date was done because it resulted in the only scenario where a good fit to the bioassay data could be obtained. This is because the majority of these samples were followed up by results that were much lower than the high positive results used to determine the intake date.

NIOSH agrees that this is not considered a standard practice however in this case it was a choice of calling the high

samples false positive or assuming that the intake occurred close to the high result. NIOSH feels it is more claimant-favorable to assume intake occurred than to assume nothing occurred.

Apparently a one high sample followed fairly closely by a low samples and to fit that you have to have an intake that occurred close to --

CHAIRMAN GRIFFON: I understand this is to split the period.

MR. HINNEFELD: If you don't have any indication and there are not countervailing bioassay samples following it.

CHAIRMAN GRIFFON: I think this -- yes, you got to --

MR. HINNEFELD: We have just go to back to it.

CHAIRMAN GRIFFON: Yes. I mean the other thing I would ask on the record, employment record from DOE, is if this was an acute exposure, was there any kind of incident

report or anything in the person's file to indicate -

MR. HINNEFELD: Well, maybe something will -

CHAIRMAN GRIFFON: Yes. That would be something when you do the follow up, but obviously if yes.

MR. FARVER: And what triggered was obviously they chose an intake date the day before the high bioassay sample.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Which -- it's a trigger.

MR. HINNEFELD: 194.4. Finding is NIOSH failed to calculate internal doses associated with potential exposure to thorium. And the response is the 1955 bioassay listed in the inventory exposure history report is listed as beta urinalysis for plant 3. There is no indication at this time that thorium was processed in plant 3. Therefore no thorium was assigned. Currently the guidance on assigning

thorium exposures is being evaluated as part of the Site Profile SEC process. If a change in the approach to applying thorium is implemented then this claim would be reworked under PER. However the current Site Profile at the time this claim was assessed, limits thorium exposures to plant 9 in 1955.

CHAIRMAN GRIFFON: This could certainly be discussed tomorrow.

MR. HINNEFELD: Sounds like it. I don't know for sure but sounds like it could be.

CHAIRMAN GRIFFON: Right. At either rate, I think SC&A needs to follow up on this and if we end up giving it to the Work Group, that's fine, but for now we'll just say SC&A

MR. HINNEFELD: And yes, Observation number one for 194 is NIOSH may have erroneously concluded that PFG units were not in use at FMPC during `51 through `58. Site research for the site indicates that I think if there was, the PFG wasn't used there.

Observation number 2 is that SC&A's review of the Site Profile has identified deficiencies with NIOSH's assessment of internal doses associated with the raffinate streams in plant 2 and 3, recycled uranium and failure to consider ingestion doses, and TBD findings and concerns are being considered in conjunction with the TBD and that's all.

DR. ULSH: For Observation number 1, and I guess this one, what's the status?

CHAIRMAN GRIFFON: Yes, I was going to ask, what is the status on Observation 1?

MR. HINNEFELD: Well, it's an observation.

CHAIRMAN GRIFFON: Yes.

DR. MAURO: And I've got to say, I wouldn't have made it an observation. In other words we are saying that you might be missing some PFGs, especially as a DOE facility, unless you have -- if you have affirmative evidence --

CHAIRMAN GRIFFON: I think it's

pretty clear there.

DR. MAURO: They did not have PFG.

CHAIRMAN GRIFFON: I think it's pretty clear there.

DR. MAURO: Well, just hand it to us and we'll confirm.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: I don't think we can do anything with it today. It goes to SC&A to look at.

DR. ULSH: Okay.

CHAIRMAN GRIFFON: But do we need -- does NIOSH -- I mean does SC&A have the evidence that supports that claim? Is it in that section -

MR. HINNEFELD: Doesn't it come up in the Site Profile debate at all?

DR. MAURO: If we don't have it, we'll call you.

CHAIRMAN GRIFFON: Okay. Okay.

MEMBER CLAWSON: So what are we going to do on that?

CHAIRMAN GRIFFON: Well, I think SC&A will follow up on it. And if they don't have enough information --

DR. MAURO: We'll reach out to you so you know.

MR. FARVER: So, we are saying that they assumed it was PFG and it should not have?

MR. HINNEFELD: No, we said --

CHAIRMAN GRIFFON: We said it wasn't, right.

DR. MAURO: Before a certain date we thought there should be PFG but what was the date that you cut off at?

MR. HINNEFELD: `51 through `58. `51 is when the place opened. So `58 must be the cutoff in the OTIB -

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: That we used if you don't know, you assume for that. In this case the judgment was we know. They didn't have -

DR. MAURO: You didn't provide any

reference on the basis for that conclusion.

MR. HINNEFELD: Not here. I don't know what that conclusion was based on. Well, we refer to the Site Profile. And I don't know what references were listed in the Site Profile.

DR. ULSH: Interviews of medical employees.

CHAIRMAN GRIFFON: It does reference medical -- hopefully they're referenced in the -- yes.

MEMBER MUNN: You have interviews, either accept them or you don't accept them.

CHAIRMAN GRIFFON: Again, follow up on that and see if you need more information. You can talk to them. Okay. 194, Observation 2.

MR. HINNEFELD: Oh, we just referred those to the TBD discussion.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: In fact I think they were put in here as observations because they

were already issues in the Site Profile.

MR. FARVER: A little bit more about that previous observation, about PFG. That observation is based on findings from our review of the Fernald TBD.

MR. HINNEFELD: I think all these are.

MR. FARVER: So that's not a -- so that observation is not unique to this case.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: It is two findings, finding 30, finding 33, out of our report for the Fernald TBD.

MEMBER MUNN: Unless that's true of Observation 2 and Observation 3.

MR. FARVER: Probably.

MR. HINNEFELD: I think those things are here as observations --

CHAIRMAN GRIFFON: Yes, placeholders.

MR. HINNEFELD: They had previously been identified in Site Profile review.

CHAIRMAN GRIFFON: That's fine so we'll just put them as closed out for our process.

DR. ULSH: Observations 1, 2, and --

CHAIRMAN GRIFFON: Even number 1 should be closed out? I sort of liked my statement on one but you want to leave that to the Work Group?

MR. FARVER: Let me see on Observation 1. Observation 1 is about findings 30 and 33 of the SC&A report on the Site Profile so it's already been previously identified.

CHAIRMAN GRIFFON: Okay. I'll just say SC&A will follow up on the events of when Fernald was using PFG and include in Site Profile discussion. So it refers it to the -- I just don't want to lose the actual work has got to be done.

MR. FARVER: The final statement of that observation is the resolution of these findings could have an impact on this case,

which is true. So, but that gets resolved under Site Profile Work Group?

CHAIRMAN GRIFFON: So this will be resolved tomorrow is what you are saying. Okay.

DR. ULSH: It will be discussed tomorrow.

MR. FARVER: We roll tomorrow.

CHAIRMAN GRIFFON: Unfortunately I'm on that Work Group too. Okay.

MEMBER MUNN: Lucky guy.

DR. ULSH: So that's the same for observation --

CHAIRMAN GRIFFON: Same for two and three, right.

MR. HINNEFELD: These are all the same.

CHAIRMAN GRIFFON: Yes, yes, that's fine. Okay. Yes. You have got some more. You want to do -- we can get through 195 and then we may want to call it a day.

MR. HINNEFELD: All right. Finding

195.1 is NIOSH did not apply the correct exposure geometry and organ dose conversion factor. Our response is the rotational geometry organ dose conversion factors are higher than the interior posterior geometry per red bone marrow. And additional corrections are required when the dosimeter was worn on the chest. It is not clear if the interior posterior rotational or isotropic geometry is the most applicable based on employee's duties and work locations.

However since the reconstructed dose results in a compensable decision it was appropriate to apply the dose conversion factor that gives a lower dose. For this claim, that is the dose conversion factor for anterior to posterior exposures. Use of the AP dose conversion factor may have been inadvertent for this claim and its use as an underestimating assumption should have been noted in the report for clarity.

It sounds like what this is, the

finding apparently was that whereas we normally use AP geometry because that usually gives the highest, but it doesn't for red bone marrow. And so I think the finding probably said well, you should use rotational because it's one of the few exceptions from AP -

DR. MAURO: Okay.

MR. HINNEFELD: I think that's probably what the finding said.

DR. MAURO: And since it was compensated --

MR. HINNEFELD: And we said, well, yes, we agree, but we used AP on that and it was compensated so you're kind of better off being on the low side rather than the high side on a mistake on a compensable claim and even though we said it may have been a mistake, it may have been inadvertent, so we didn't know exactly why AP ended up in there, but so I think that's it, but I think you guys ought to take a look at it, see if that's --

CHAIRMAN GRIFFON: Yes, yes, yes. It

seems a bit like one of these after the fact justifications for an error.

MR. HINNEFELD: No, we've never said we were right. We said it was an error.

CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: Serendipity.

CHAIRMAN GRIFFON: Okay. You lucked out, yes.

MR. HINNEFELD: Yes. All right. Don't expect to be lucky. Rely on it.

Okay, finding 195.2, discrepancy between assumptions described in the report and those used in the workbook calculation. Our response is the dose reconstruction report is erroneous as noted in the finding. The 95^{th} percentile neutron to proton ratio is often used as an overestimating approach in the more common situation where they reconstruct the dose results in a non-compensable decision. The standard language from that more common approach was not changed to match the use of the more reasonable geometric mean value of

the ratio.

So this could be listed as a QA finding because the report said do one thing but we really did another thing. But we believe the dose reconstruction report, there is no problem with the mathematics in the report, but the words in the report don't match what we did. You can take it back to look at.

CHAIRMAN GRIFFON: Okay. Interrupt any time Doug if you have any follow up questions.

MR. FARVER: No, that was the gist of it.

CHAIRMAN GRIFFON: Yes, yes.

MR. FARVER: It was just a wording and it was different than what the calculations were.

MR. HINNEFELD: Finding 195.3 is -- using sodium-24 whole body count results may underestimate the dose. We wax eloquent again. This finding implies that the internal dose

from fission products was based solely on measurements of sodium-24 or that the TBD such and such number recommends such a method. Upon review of the internal dose reconstruction, this was found not to be true of this claim or the guidance in the TBD. The potential missed fission product dose for this claim was determined using the radionuclide that gives the highest dose to the appropriate organ based on the whole body count MDA and exposure period (except for years coworker intakes were used.)

For this claim, that radionuclide was determined to be cerium-144. Deposits of zinc-65 and sodium-24 whole body count results were evident in these records and these were each considered separately. The findings also state that the internal dose could also be underestimated by using sodium-24 results because zinc-65 is more easily detected post-intake due to its longer half-life.

In fact, the opposite would occur.

A higher intake would be calculated because the intake calculation takes into account the effective half-life of sodium-24 in the body.

In other words, if the sodium-24 is disappearing at a more rapid rate, and you take your sodium, your in-vivo count, you would have a larger back-calculated correction for sodium-24 than for zinc-65. This seems to be a very complicated response and it needs to go back to SC&A.

DR. MAURO: I think I understand what you're saying. We'll look at it.

MR. FARVER: I can't even find the finding in the report.

MR. HINNEFELD: Well somebody put it in the matrix.

CHAIRMAN GRIFFON: It looks like the day of the fission product or the chooser right?

MR. HINNEFELD: It looks like it was -- the internal dose from fission -- this sounds like a Hanford case because we have --

CHAIRMAN GRIFFON: Hanford, yes.

MR. HINNEFELD: Because it was in the drinking water.

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: That's what it sounds like. The comment seemed to imply that we calculated internal dose just from the sodium where in fact we did it in a different way, and used the high dose, the highest nuclide.

CHAIRMAN GRIFFON: Which would have been the chooser I think.

MR. HINNEFELD: I don't know what we called it.

CHAIRMAN GRIFFON: Right. Thank you Scott.

MR. HINNEFELD: Thanks Scott.

MR. SIEBERT: No problem. It sounds like we were just a little too ambitious picking one more Mark.

CHAIRMAN GRIFFON: Yes, I know, we were -

(Laughter.)

CHAIRMAN GRIFFON: Yes. I know.

MR. HINNEFELD: The drain in energy level is audible, not just visual, it's audible. Finding 195.4, and the finding is an internal dose from cesium-137 was not included. One more book. Our response. The dose reconstructor compared the cesium-137 bioassay results to the mean body burden resulting from fallout and determined that they were similar although two were slightly greater. I guess that's two of the cesium-137 bioassay results, I guess, were slightly higher.

CHAIRMAN GRIFFON: I think you can almost stop there and say SC&A needs to review.

(Simultaneous speaking.)

CHAIRMAN GRIFFON: It's pretty obvious that you are going to have to look at that.

MR. HINNEFELD: There are some

observations. You want to worry about that or just say since they are observations, no further action required?

Oh my God, they're long.

CHAIRMAN GRIFFON: Hold on, let's see.

MR. FARVER: I mean, we can talk about that cesium if you want to, I ,mean it goes straight from a table of mean body burdens from cesium fallout in the United States and the whole body results for one number, and the table results for a lower number, so I would assume that you would calculate a dose from that and I assume it's a body burden not from fall-out.

MR. SIEBERT: Well, the operable part of this response actually is at the end and I apologize for that. It's compensable claim and we stated that we didn't need to assess any cesium-137.

MR. HINNEFELD: Yes I think the operable part is that we simply terminated the

dose reconstruction before doing the cesium part.

MR. FARVER: And that's part of a problem we have. We sometimes can't tell if it's been terminated or just omitted.

CHAIRMAN GRIFFON: Well yes, that's true. I guess I would -- I don't know. It obviously doesn't affect this claim, does it, is there still a question of how it's handled overall? Or --

MR. FARVER: I don't know that you could resolve that, I mean if you are trying to -- it was just terminated. You know a lot of times what I've seen in the past is if say an internal dose is not necessary, they have ended the internal dose section, you'll say, per such and such a CFR, this is not needed, and probably a statement like that should have been included under a cesium section, if that's the case. That way everyone knows that it could have happened but we don't need to address it. We are going to move on.

MR. HINNEFELD: Well you guys have gotten into the comment --

CHAIRMAN GRIFFON: Well I'm going to say SC&A will review further. Likely or no effect on the case. Or likely no effect on this case. I just want to leave it a little open to let them look at it closely.

MR. HINNEFELD: Observation one. The recorded whole body gamma used by NIOSH in the AI workbook, differ from those totaled by SC&A from the DOE records. Since the handwritten records for AI from 1957 through `67 are not always dated or in order, the discrepancy that exists between SC&A and NIOSH input values could be due to the misreading of the original recorded data by either party. The background for this observation identifies 1957 as the year when differences were noted between the doses used by NIOSH and those observed by SC&A. No other specific discrepancies were identified. The gamma dose for 1957 was determined by SC&A, was given as 57 millirem

and SC&A states that NIOSH uses 29 millirem for that year. The SC&A representation of the dose used by NIOSH is incorrect. The recorded gamma dose used by NIOSH was 62 millirem but this was reduced to 29 millirem due to considering values less than half the dosimeter limit of detection as zero results as required by OCAS-IG-1. The 62 millirem total gamma dose for 1957 is taken from page 31 and 32 of the DOE file of the DOE response such and such. The doses used by NIOSH appear to be correct. The 57 millirem value stated by SC&A we cannot replicate. So that's got to go to SC&A.

DR. MAURO: Just for my own edification, you are saying that if the recorded film badge reading is less than one half the MDA, at that time you were recording a zero?

MR. HINNEFELD: At this time, yes --

DR. MAURO: At that time that was what you were doing.

MR. HINNEFELD: That's what we are doing now.

DR. MAURO: You're doing that now? So if you get a reading as opposed to assigning one half the MDA, you assign zero.

MR. HINNEFELD: Yes, but it's assigned as one half the MDA in the missed dose section.

DR. MAURO: All right so I'm asking, are you --

MR. HINNEFELD: Yes.

DR. MAURO: Oh. Okay.

MR. HINNEFELD: It's assigned a zero in the recorded dose section and then that one is put in the missed dose section where they are going to have the MDA.

DR. MAURO: Oh okay. I'm okay now. I didn't quite follow it.

CHAIRMAN GRIFFON: Yes, they don't double count, right.

DR. MAURO: Okay I just wanted to -- I didn't understand. Right.

CHAIRMAN GRIFFON: But my question on this one is why is it an observation and not a finding? It seems like a discrepancy in value, that kind of thing usually comes up as a finding. No?

MR. HINNEFELD: I don't know. It's not very big --

CHAIRMAN GRIFFON: Yes I know, it's just, yes, but --

MR. HINNEFELD: I don't know. I don't know.

CHAIRMAN GRIFFON: Anyway, I was just trying to get a --

MR. FARVER: I don't know. Sometimes when we talk to these Board Members on their conference calls we change things from findings to observations -

CHAIRMAN GRIFFON: Oh, blame it on the Board. Oh, I see. I didn't do this case did I? All right we'll leave it at that. Neutron/photon, go ahead.

MR. HINNEFELD: The observation

number two is the neutron/photon dose ratios described in the Site Profile main number, it's the number of the Site Profile, may be underestimated. Response is the neutron to photon ratio as listed in the included technical basis document was used in the dose reconstruction. The validity of those ratios is currently undergoing evaluation. They were assumed to be correct at the time the dose was reconstructed for this claim. So that is I think in a Site Profile review, I think the --

CHAIRMAN GRIFFON: Which --

MR. HINNEFELD: Didn't we assign this to the Hanford case?

CHAIRMAN GRIFFON: This is Hanford.

MR. FARVER: Oh, it's Hanford and Atomics International and Grand Junction.

CHAIRMAN GRIFFON: So the N/P ratios would be for Hanford though?

MR. FARVER: Probably.

MR. HINNEFELD: I believe so.

CHAIRMAN GRIFFON: So there is a

Hanford group active.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: Yes. So this issue will go to the Site Profile group, I believe, right?

MR. HINNEFELD: I think it's already there. We'll let them -- we'll let SC&A come back with a response before we take any action on it, right? Are we going to just send it over there or what are we going to do?

CHAIRMAN GRIFFON: Well let's ay it's under review and is it under review on the Hanford --

MR. HINNEFELD: It's under review on the Hanford Site Profile, and the Work Group. Observation number three. The procedures and documents used to derive those doses were not referenced in the text or in the reference section of the DR report. Our response, references for the information used to determine the onsite ambient dose should have been included in the report. So we agree the

references should have been there. I guess you could make it a QA finding. It felt like that was a QA failure.

CHAIRMAN GRIFFON: I'm assuming SC&A agrees with this, right?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: No further action. All right. The last one? How many observations? Okay. Last one. Last one for the day. Let's make it a good one.

MR. HINNEFELD: It's long. Observation four. The DR states that the IMBA code was used to calculate chronic ingestion intakes for sodium-24 and zinc-65. In fact the IMBA code was used to calculate chronic inhalation intakes of 843 picocuries per day and 65 picocuries per day for sodium and zinc respectively. The actual chronic ingestion intakes are 558 picocuries per day and 37.4 picocuries per day for sodium and zinc respectively. Also the sodium-24 whole body count result entered for the hear 1970 is

actually the 1968 result. The observations currently point out that the report does not match the analysis in regards to the intake pathway for sodium-24 and zinc-65. However the internal dose calculated from zinc -- from the sodium-24 and zinc-65 results was not included in the dose estimate because they were both less than one millirem, in spite of the overestimate produced by assuming inhalation intakes. The observation is also correct in noting that the bioassay result for 724 does not correspond to the correct date, so --

CHAIRMAN GRIFFON: I think SC&A might want to look further into that.

MR. HINNEFELD: Yes.

CHAIRMAN GRIFFON: And again, I don't know how that is an observation but I guess that's the Board that has done that. No, okay. All right. I mean it seems like -- and if you're in agreement that it is, you know, I think you have to review to see first is the question about the one millirem and -- I think

there's several things that SC&A should look back at on this one.

Okay. And I think that's it. I think around the table we've kind of had it so I don't know about you all that have stuck with this on the phone but yes that answers my question, okay. Anything else for the record today?

Anyone? Do we want to try to pick a date?

MR. KATZ: Why not? It makes it easier. We've done this for the last few Work Groups.

CHAIRMAN GRIFFON: Let's go ahead and pick a date, yes. Maybe you can steer us in the right direction Ted. What dates are out there?

MR. KATZ: Wait a sec, let me switch my calendar. Well given that work hasn't been done to finish seven and there's quite a bit to do left on eight and we want progress on nine too, I mean I would suggest we push it

out -

CHAIRMAN GRIFFON: To near the February meeting? Is there --

MR. KATZ: To near or after the February meeting.

MR. HINNEFELD: I would suggest after.

MR. KATZ: I mean this doesn't have to come before --

MR. HINNEFELD: It doesn't matter to me.

MR. KATZ: We don't have an item to put before the Board.

CHAIRMAN GRIFFON: Right.

MR. KATZ: So we don't really have to be beholden to that.

CHAIRMAN GRIFFON: We can go into March.

MR. HINNEFELD: I'm out for almost all of February.

CHAIRMAN GRIFFON: Oh okay.

MR. HINNEFELD: You can do it

without me, I'm okay with that.

MR. KATZ: We have a meeting booked in March. Let me see what date that is because it might make sense to sidle up to that. Yes, TBD-6001 which you are on, Mark, is on March 15. So either the 16th or the 14th would be good.

CHAIRMAN GRIFFON: I like the 14th but I know others are not going to like that as much, right?

MR. KATZ: Well.

MEMBER RICHARDSON: That's good for me.

MR. KATZ: That was David that said it was good for him.

CHAIRMAN GRIFFON: Let's do the 14th at least tentatively. 14th for DR Subcommittee.

MEMBER CLAWSON: I'm -- let's shoot for it.

CHAIRMAN GRIFFON: Mike are you still on?

MR. KATZ: Mike?

MEMBER GIBSON: Yes, 14th's good.

MR. KATZ: Okay. Brad doesn't have an immediate problem.

MEMBER CLAWSON: No, let's just shoot for that and I'll see where my schedule falls.

CHAIRMAN GRIFFON: Okay we'll try it. We can also about beginning of March if we don't have a lot of activity, we can also, how long before should we cancel this?

MR. KATZ: We can't cancel that late.

CHAIRMAN GRIFFON: I mean, when do you post them in the Federal Register? 30 days beforehand?

MR. KATZ: 30 days in advance. So that's when we would have to notify the public --

CHAIRMAN GRIFFON: So I might try to touch base with SC&A and NIOSH.

MR. KATZ: You should actually.

(Simultaneous speaking.)

CHAIRMAN GRIFFON: Because I don't want to -- we don't want to schedule just for the purpose of coming to Cincinnati. Okay.

MR. HINNEFELD: The baseball season hasn't even started yet.

CHAIRMAN GRIFFON: Anything else?

MR. HINNEFELD: We are expected here unless we hear otherwise?

MR. KATZ: Yes.

CHAIRMAN GRIFFON: All right. If there's nothing else, we are going to close. Meeting adjourned. Thanks everyone for hanging in there.

(Whereupon, the above-entitled matter went off the record at 4:42 p.m.)

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