NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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OFFICE OF COMPENSATION ANALYSIS AND SUPPORT

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SUBCOMMITTEE FOR DOSE RECONSTRUCTION REVIEWS

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MONDAY,
DECEMBER 8, 2008

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The Subcommittee convened at 9:30 a.m. in the Zurich Room of the Cincinnati Airport Marriott Hotel, Michael Griffon, Subcommittee Chair, presiding.

MEMBERS PRESENT:

MARK GRIFFON, Chair
BRADLEY P. CLAWSON
MICHAEL H. GIBSON
WANDA I. MUNN

ALSO PRESENT:

KATHY BEHLING, SC&A*
LARRY ELLIOTT, OCAS*
DOUG FARVER, SC&A
ZEDA E. HOMOKI-TITUS, HHS*
STUART HINNEFELD, OCAS
EMILY HOWELL, HHS
TED KATZ, Designated Federal Official
JOHN MAURO, SC&A
SCOTT SIEBERT, ORAU

*Participating via telephone

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

9:38 a.m.

MR. KATZ: Good morning. This is Ted Katz. I'm the Acting Designated Federal Official for the Subcommittee on Dose Reconstruction Review of the Advisory Board on Radiation Worker Health and we are about to get started with roll call. We will start in the room with Board Members beginning with the Chair.

CHAIR GRIFFON: Mark Griffon, Board Member, Chair of the Subcommittee.

MEMBER CLAWSON: Brad Clawson, Member of the Advisory Board.

MEMBER MUNN: Wanda Munn, Board Member.

MEMBER GIBSON: Mike Gibson, Board Member.

MR. FARVER: Doug Farver, SC&A.

MR. KATZ: No, wait, wait. Board Members first. So on the telephone do we have Board Members on the telephone? Dr. Poston?

And Mr. Presley? Okay. Now, going around the room, NIOSH ORAU Team?

MR. HINNEFELD: Stu Hinnefeld, Technical Program Manager for the OCAS.

MR. SIEBERT: Scott Siebert, ORAU Team.

MR. KATZ: And on the telephone, NIOSH ORAU?

MR. ELLIOTT: Larry Elliott, Director of OCAS.

MR. KATZ: Welcome, Larry. Okay, then SC&A in the room?

DR. MAURO: John Mauro, SC&A.

MR. FARVER: Doug Farver, SC&A.

MR. KATZ: And on the telephone?

MS. BEHLING: Kathy Behling, SC&A.

MR. KATZ: Welcome, Kathy. And now, HHS?

MS. HOWELL: Emily Howell.

MR. KATZ: Or other Government?

MS. HOWELL: HHS.

MR. KATZ: And on the telephone?

MS. HOMOKI-TITUS: Liz Homoki-Titus, HHS.

MR. KATZ: Welcome, Liz.

MS. HOMOKI-TITUS: Thanks.

MR. KATZ: That sounds like that's it. And then is there anyone else from the public or the congressional office on the telephone? Okay. And then just -- I'll remind everyone, please, mute, star 6, when you are not speaking on the telephone and, please, do not put us on hold, but call back in, instead. And, Mark, it's all yours.

CHAIR GRIFFON: All right. I think the agenda today is pretty similar to past agendas. I think we are going to cover the sixth set of cases and I don't think we have many outstanding items on the sixth set. The seventh set of cases we have taken one run through there, but we need to revisit many of the items in there, I think. And then the eighth set, we have not had any discussion of those. We have got NIOSH=s -B for the most

part, almost all your comments --

MR. HINNEFELD: I think most of them, yes. I think there is one procedure that might be important to respond to.

CHAIR GRIFFON: And at the end, the --

MR. HINNEFELD: And then the things at the back.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Like profile reviews.

CHAIR GRIFFON: Like profile reviews, yes, having to adjust those, right. So we'll start with those. The other item on the agenda is this summary letter of the first 100 cases that I sent out a revision of that. I did slightly modify some of the language in it, so we can maybe have a discussion on that.

If it looks like we are running low on time, I might want to move that up on the agenda after lunch, so we get that in, because that may, you know, finish that. That

would be good to bring to the Board in two weeks.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: So starting on the sixth set of cases. Maybe we can just run through and people, collectively, our memories can tell us where we stand on these findings. 102, do we have any outstanding findings on 102? We have got all --

MEMBER MUNN: Before we get --

CHAIR GRIFFON: Yes?

MEMBER MUNN: -- very far into that, Mark, may I ask is there a later version of the matrix than the August version?

CHAIR GRIFFON: Yes, created by OCAS August 20th, is the latest version I have.

MEMBER MUNN: Right. The one I have --

CHAIR GRIFFON: Right.

MEMBER MUNN: -- in the record.

CHAIR GRIFFON: And a lot of those, as I said, a lot of my hand markings in

the final two columns, the resolution and the program action are on my hard copy. And I have not yet added those on, but hopefully if we close all this out, I will do that after this meeting and circulate it. Okay.

So 103, is there anything in 103? I have a note that says, consider and prompt review TIB-18 and TIB-33, on the TIB-18/TIB-33 finding.

MEMBER MUNN: Which item?

CHAIR GRIFFON: I am looking at 103.1.

MEMBER MUNN: One?

CHAIR GRIFFON: Yes.

DR. MAURO: Generic issues related to 18 and 33.

CHAIR GRIFFON: Yes.

MEMBER MUNN: I believe we've got them.

DR. MAURO: Yes.

MEMBER MUNN: And procedures.

CHAIR GRIFFON: And then, the

question I have always then is that when we -- even if we resolve it in procedures, the application of a procedure to a case is different than reviewing the procedure itself.

MEMBER MUNN: It is.

CHAIR GRIFFON: So how does it come back here, you know? How do we -- I mean, we're saying we're deferring it to the Procedures Group, but again, it's this question of not losing it.

MEMBER MUNN: Well, then the real question is should the program actions be transferred with the assumption that this will be incorporated or do we need to establish something like we use in the Procedures Group where there is a list of open items?

CHAIR GRIFFON: Yes, like in abeyance or --

MEMBER MUNN: A punch list or something.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I mean, I think it almost has to be that it is anything that we transfer, we have to then wait and see what happens in the Procedures Group and pending that, we'll have to come back and revisit this one, right?

MEMBER MUNN: Right.

CHAIR GRIFFON: So --

MEMBER MUNN: There is a feedback loop that we haven't finished here.

CHAIR GRIFFON: I know.

MR. HINNEFELD: There might be automated processes in place that this gets taken care of and you may want, rather than to track every one of these or keep track of which ones they are, but samples, to see that the resolution is what you would expect.

CHAIR GRIFFON: In other words, if you are allotted --

MR. HINNEFELD: Here is what I'm going to say, because the finding is -- since it was -- I don't recall it real well, but

since it was transferred to the Procedures Work Group, I would believe the finding related to structure of TIB-18 -- what does TIB-18 tell people to do?

MEMBER MUNN: Right.

MR. HINNEFELD: And so if, in fact, TIB-18 is then modified because of the review of TIB-18, and that modification would require that -- would mean that cases done in this fashion did not receive sufficiently high doses, you know, in that circumstance. Those cases then would have to be reconsidered and reevaluated in an PER process. And so that process then should receive and close that whole business.

CHAIR GRIFFON: Actually, I think I can answer that one.

DR. MAURO: TIB-18 is more -- I believe it is a little bit more complicated. On the TIB-18, there is the default MPC approach. In other words, basically what is being said is, listen, after a certain date,

all DOE facilities are following DOE Order 54. And I think TIB-18 was the MPC concept.

CHAIR GRIFFON: Okay.

DR. MAURO: If I remember correctly. And then OTIB-33 was the adjustment factors. Well, you may not be at 100 percent.

CHAIR GRIFFON: Yes.

DR. MAURO: And there were some fundamental issues that went toward that that said well, listen, is that really appropriate? To universally, just automatically just say oh, okay, well, this facility falls on the TIB-18. We could feel a degree of confidence that if it had a good health physics program --

CHAIR GRIFFON: Well, and that's the key.

MEMBER MUNN: Yes.

CHAIR GRIFFON: There is the baseline assumption that they had a rigorous air monitoring.

DR. MAURO: Right. Now, this is where I think TIB-18, as a generic procedure, is a really important procedure to review, because it really adopts a universal that, in effect, solves all problems. You know, you say well, if you know you had a good air sampling program, you could feel confident that would be preconceived doses.

CHAIR GRIFFON: Right, right.

DR. MAURO: Now, I think on one level that will be resolved during the procedures. But then when you apply that to a particular case, you say, okay, now we have a real case that adopted it. Then you have to ask yourself the question well, in this particular case, let's say they decide to go in one half MPC with certain default radionuclides as being the universal for the internal for this case.

I think that then you are actually implementing TIB-18. Let's say we decide it is okay, but now you are implementing it for

this case. And then the question becomes, did we implement it in this case in a way that is claimant-favorable for this case? So I could very well see this as being a very good example of the two-step process.

You know, why you would first try to say, listen, are we comfortable with the fundamental strategy that is being used? And then once you are comfortable with it, has it been implemented in a way, for this case, that everybody is comfortable?

CHAIR GRIFFON: In general, I agree with you, John. In this case, I think we closed it out, because it is a compensable plan.

DR. MAURO: Oh, okay.

CHAIR GRIFFON: And I just thought I would note it. So it's a compensable one and the real question or issue that came up in our discussions was why was TIB-18 used for a compensable plan and was not, you know, in fact, early on used that way?

MR. HINNEFELD: It was, in fact, part of that same direction to our contractor when we told him to use TIB-4 for the compensable plan.

CHAIR GRIFFON: Right.

MR. HINNEFELD: As part of that same --

DR. MAURO: Yes, we have a number of places where this recurs. That is, we see TIB-4 or see TIB-18 used for the purpose of compensation.

CHAIR GRIFFON: Right, right.

DR. MAURO: I have to say I'm still not quite sure, because I just did a TIB-4 and I'm not quite sure what the position is, whether or not you can use it for the purpose of --

MR. HINNEFELD: Not as it is written now.

DR. MAURO: Okay.

MR. HINNEFELD: No. In fact, our position, in fact, is so much of the debate

now at certain sites where we don't have much information, but they were uranium sites. What you can do to reconstruct the dose and can you use TIB-4? And so there are actually other approaches now. TIB-4 is obsolete.

DR. MAURO: You go to --

MR. HINNEFELD: TIB-6000.

DR. MAURO: 6,000.

MR. HINNEFELD: Which is really what should be done.

DR. MAURO: Yes.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: So it's not, in my understanding, being used.

DR. MAURO: So when we do see compensation on a TIB-4, we should alert you to that? Because that's what I just did recently on a very --

CHAIR GRIFFON: If it is a newer case, it depends.

DR. MAURO: Well, now --

MR. HINNEFELD: That too, yes.

DR. MAURO: -- it was going back a ways.

MR. HINNEFELD: See and it could have been during that one period of time.

CHAIR GRIFFON: Right.

DR. MAURO: Right.

CHAIR GRIFFON: Okay. But in general, John, I think you are right about TIB-18, but not for this case.

MR. HINNEFELD: So I --

CHAIR GRIFFON: I would close this out.

MR. HINNEFELD: I think this one can be closed, but then I think what your -- your concern though is about cases that are referred to another work group.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And how you -- what do you do with those?

CHAIR GRIFFON: Well, there are issues that are referred and --

MR. HINNEFELD: Yes. And so the

issue underlying those findings --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: -- was referred to that work group. So what happens to this case and it sounds like, at the very least, you would want to keep track of it.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: And whether you decide to verify every single one or whether you try the sampling.

CHAIR GRIFFON: We can discuss that.

MR. HINNEFELD: Yes, okay.

CHAIR GRIFFON: And you know what I'll do is I might have to renew that discussion with SC&A about taking the same kind of database and using it for all this stuff. I mean, we talked about it initially with Kathy.

DR. MAURO: But I can check with Kathy with all of these data.

CHAIR GRIFFON: I actually did it

in a very primitive form. I imported all the Excel spreadsheets into the Access Database just for my own purposes, but in a very primitive way. It doesn't have all the bells and whistles that he put in.

DR. MAURO: Well, Doug, are all the data now loaded into this Access kind of arrangement for test, do you know?

MR. FARVER: I do not know.

DR. MAURO: Kathy, are you on the line?

MS. BEHLING: Yes, I am, John. And no, the database has been pretty much completed and it is out on the O: drive, but, at this point, we have not had the time. We haven't loaded that data yet. In fact, we still really need for the Subcommittee, for Mark and the Subcommittee, to look over the database and decide if this is the way they want it to look. So we haven't gone --

CHAIR GRIFFON: Do you have a beta version of the database for DR review?

MS. BEHLING: Yes, we do. And it is loaded on the O: drive.

CHAIR GRIFFON: Okay. I haven't seen it.

MS. BEHLING: Yes.

CHAIR GRIFFON: Nobody alerted me to that, yes.

MS. BEHLING: Okay.

CHAIR GRIFFON: Okay. That's okay.

MS. BEHLING: I apologize, yes. Don just recently has loaded that out and it's in the same location as a separate database, so as the procedures.

CHAIR GRIFFON: Procedures, okay, okay.

MS. BEHLING: Yes, it does exist. I just have not -- we have not loaded it yet.

CHAIR GRIFFON: Well, I'll ask -- I will work with you guys. I think I would like to do that off-line, though.

MS. BEHLING: Yes.

CHAIR GRIFFON: But if any members of the Subcommittee look on -- you know, review that and if you have any comments on how it is going to -- how it is structured, send them to me and I can work with Kathy and we can get a -- you know, if we need to tweak it at all, we will do that.

DR. MAURO: Well, one of my --

CHAIR GRIFFON: And then maybe in the, you know, meetings going forward, we can start to work from that.

DR. MAURO: You know, one of my experiences, Kathy, I'm not sure if it will apply here also, is in terms of, you know, the organizational structure of the database, the fundamental framework and the information it contains, you take it as far as you can in principle. And then what happens is you say, okay, now it's loaded. We do this on procedures.

And once you start to load it, and once you start to use it, it's only then that

it comes to life.

CHAIR GRIFFON: Yes, that's right.

DR. MAURO: So I don't think we should expect that we're going to have all our problems solved --

CHAIR GRIFFON: No, no.

DR. MAURO: -- because we have loaded. It's one you start. In my opinion, the sooner you start loading the database, the sooner you're going to get it done and get, not all the nots, it's going to take a little -- it's always a little bumpy, but eventually you get there. I can tell you right now, I'm very pleased the way things have ended up on procedures. They are coming in very handy for me.

CHAIR GRIFFON: Yes, but I don't want to have Kathy waste a lot of time loading O: matrices, either, because I notes here. You know, I want to update what I have and then they can load the latest information.

DR. MAURO: Yes. If it turns out

it makes more sense, especially you close -- let's say you're done with the first 100 cases, you know --

CHAIR GRIFFON: Right.

DR. MAURO: -- why even bother?

CHAIR GRIFFON: Right.

DR. MAURO: It's sticking up --

CHAIR GRIFFON: Well, unless we want it for archival purposes, you know. We talked about that for the other.

MEMBER MUNN: And this might be as good a time as any to think about the issue that started this entire discussion, that is, how much tracking needs to follow once we have it transferred.

CHAIR GRIFFON: Right.

MEMBER MUNN: If it is transferred somewhere, then how do we prime the system so that there's closure from the transfer point?

CHAIR GRIFFON: Well, also, how do we know, I can tell you in the first five sets, we had a bunch that were transferred for

site profile review, I believe, you know, or site review. And even though we said we completed the five sets, there were still some that, you know, completed was not defined as your Procedures Work Group is defined.

MEMBER MUNN: Yes.

CHAIR GRIFFON: So yes, that's an issue for the -- because the site profile -- again, the site profile ones, you know, we reviewed on that separate work group and then we -- somehow we have to be alerted on the -- this Subcommittee that it is completed there, you know.

MR. KATZ: I think you would want to have a check-back where you keep control of the information yourself as well as asking them to report back, because it may not happen.

CHAIR GRIFFON: Yes.

MEMBER MUNN: It might be worthwhile to set up an hour's worth of telephone conversation, technical conversation

with respect to how to build in that automatic feedback, so that this group, for example, does not continually be in the position of needing to probe some other committee --

CHAIR GRIFFON: Yes.

MEMBER MUNN: -- for the feedback that you need.

CHAIR GRIFFON: But the problem -- yes, I guess.

DR. MAURO: In this system you have it transferred. Okay. Let's say we transfer to the Procedure's Work Group OTIB-18. Okay. And it says transfer. Let's say we did that here. Wouldn't that automatically be our system?

In other words, if you look as well, this one has been transferred, then automatically you go over and say has it been closed in 18? If it's not closed yet in 18, then you're still alive.

CHAIR GRIFFON: Right.

DR. MAURO: So if it's closed in

18, then you say, okay, it has been closed in 18. We could go --

CHAIR GRIFFON: But if the databases --

DR. MAURO: I'm saying that --

CHAIR GRIFFON: -- are linked --

MR. HINNEFELD: I think Wanda is saying somehow have a link that says, you know, if it's transferred on a certain date and then in procedures review if it's closed out, then it will automatically alert you.

DR. MAURO: That has been closed out. That would be flagged, yes.

MEMBER MUNN: Flagged, right.

CHAIR GRIFFON: Yes, that would be nice. Instead of having to do it, you know, like manually. The other thing is with -- it's not so bad with procedures, but when you get into the site profile reviews, you're talking about, what, 20 different work groups.

DR. MAURO: Yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: And we'll have to contact each chair and say, you know.

DR. MAURO: Yes.

CHAIR GRIFFON: I'm not even sure when we transfer them that the work group always knows that we transferred them. I think NIOSH always knows and probably keeps it in the loop. But you know what I mean, when we say this is a site profile issue, I'm not necessarily sure there is a system to make sure that the chair of that work group knows that we have just sent them something, you know.

MEMBER MUNN: No, these administrative details --

CHAIR GRIFFON: Yes, I know, I know.

MEMBER MUNN: -- are really --

DR. MAURO: See, to me, it's they only come to life after you start to implement.

CHAIR GRIFFON: I agree, I agree.

DR. MAURO: Right now, we're just right out of the woods on procedures and we're sort of marching. Now, we're about to enter the woods on dose reconstructions.

MEMBER MUNN: Yes.

DR. MAURO: And how it actually --

CHAIR GRIFFON: But my hope is that we have a lot of the same similar interests, yes.

DR. MAURO: Oh, I think we will. But until we load and use --

CHAIR GRIFFON: Right.

DR. MAURO: -- I=d say these kinds of details aren't going to emerge and be resolved in a way that really serves us well. It's hard to anticipate --

CHAIR GRIFFON: I know.

DR. MAURO: -- in advance what will work.

MEMBER MUNN: It is. Although, if we can agree to at least utilize the same terminology --

DR. MAURO: Yes.

CHAIR GRIFFON: Yes.

MEMBER MUNN: -- so that transfers made --

CHAIR GRIFFON: I think we have to, yes.

MEMBER MUNN: And in abeyance means the same thing.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: Then that in itself will be helpful.

CHAIR GRIFFON: Yes, I agree.

MEMBER MUNN: The only final loop that does not appear to be closed, as I understand our system to be operating now, is that feedback to the point of origin.

CHAIR GRIFFON: Right.

MEMBER MUNN: To let the originator know this has been closed or it is being held in abeyance. There is no feedback.

CHAIR GRIFFON: Right.

MEMBER MUNN: Automatic feedback.

CHAIR GRIFFON: Because we haven't had two databases, yes.

MEMBER MUNN: Yes.

MS. BEHLING: This is Kathy Behling. I just want to briefly summarize what I did with the dose reconstruction database. I did try very hard to make it as similar to the procedures database and using all of the same status terminology that we are using for the procedures. We tried to make sure everything is as consistent as we have already developed for the procedures, because that does seem to be working.

And as you have mentioned, I envision that since these systems are all going to be linked, and currently we only have the procedures, as you know, and we do have in place now, but it hasn't been tested or really reviewed, as I indicated on the dose reconstruction database.

But I do envision that once -- since they are linked and once -- and we know

that they are going to be transferred, a finding will be transferred from one system to the other once it is closed with procedures or ultimately with the site profiles, it should have a link back that says this is now closed according to the procedures database or the site profile database.

The only thing I will mention is that we haven't been given a cap to start looking into doing the site profile databases.

CHAIR GRIFFON: Right, right.

MS. BEHLING: Don Loomis is certainly in a position to do that and very capable. And now that we have these two systems set up, that should be a fairly quick thing to do.

MR. KATZ: So you are saying, Kathy, that he can fairly quickly set one up for a site profile work group?

MS. BEHLING: I would imagine so just based on what we have done. And I think the procedures work and the dose

reconstruction work is fairly complicated, and I think what we had to design in the dose -- or in the database is probably as sophisticated as it is going to get. And I think just doing the site profile shouldn't be -- it's not like we are delving into new territory here. I think for Don it should be a fairly quick process.

DR. MAURO: In terms of scale, for example, there are 133 procedures, each one has maybe ten findings.

CHAIR GRIFFON: Right.

DR. MAURO: For the dose reconstruction there are 140 dose reconstructions done to date, each one may be five or ten.

CHAIR GRIFFON: Yes, right.

DR. MAURO: The dose -- did -- the site profiles 28 and each one may be seven or eight or ten.

CHAIR GRIFFON: Yes.

DR. MAURO: Now, I mean, we're

talking about in terms of scale.

MEMBER MUNN: Yes.

DR. MAURO: We're not going to be -- it's not going to become like an avalanche.

CHAIR GRIFFON: Yes, and that would make it one big database, but that's however you guys want to design that. I mean, different tabs for different site profiles.

DR. MAURO: Just loading the data.

CHAIR GRIFFON: Right.

DR. MAURO: And getting it to work --

MEMBER MUNN: Yes.

DR. MAURO: -- is the hard part.

CHAIR GRIFFON: So that's fairly easy.

DR. MAURO: Procedures.

MEMBER MUNN: Procedures.

DR. MAURO: And DRs.

MEMBER MUNN: Yes.

DR. MAURO: This is hard. We get that knocked and --

CHAIR GRIFFON: Right.

MEMBER MUNN: I think so.

CHAIR GRIFFON: All right. We will look at that. If we need a technical call, fine, we can do that. But I think I tend to agree with John. If we have a similar starting point, let's load it and see how it starts working.

MR. KATZ: So are you building in an active link already for this?

DR. MAURO: For this one right here?

MR. HINNEFELD: That's follow-back. The follow-back.

CHAIR GRIFFON: I think we need it. I don't know.

MEMBER MUNN: For this?

CHAIR GRIFFON: Yes.

DR. MAURO: Kathy, this is John. I suspect this link that we are talking about between the two, so that, for example, when an issue is closed on these procedures that

somehow there is a flag in the dose reconstruction that, yes, it has been closed. That sounds to be straightforward. It's something Don could take care of, but I hate to put words into Don's mouth.

This is certainly worth looking -- if you could check with Don or whatever to see what would be involved on that flag?

MS. BEHLING: I will do that. And as I indicated, I envision that already being built in and Don and I have talked about that. So I would assume that that type of thing is already there, since we do have these two databases.

CHAIR GRIFFON: All right. And like you said, Kathy, it would be something that flagged, but we can --

MS. BEHLING: Yes, I'll confirm.

CHAIR GRIFFON: Be some type of flag that something was closed out on the other.

DR. MAURO: On the other end.

CHAIR GRIFFON: Yes. It wouldn't automatically close out the one in this one.

MS. BEHLING: Right. Well, it can notify.

CHAIR GRIFFON: Alert.

DR. MAURO: Then you judge -- at that point then you make a judgment.

CHAIR GRIFFON: Then you make a judgment, right, whether you have to look at the case further or whether it is --

DR. MAURO: Right.

CHAIR GRIFFON: Yes, yes. Okay. We will move ahead on that then. I'm on 104. I have this as being closed, basically, all the findings, but there are several of them that fall into those white paper-status generic responses for ingestion, resuspension. I think those are still hanging out there, right, to do.

MR. HINNEFELD: My recollection is they are still out there, in terms of an actual paper product.

CHAIR GRIFFON: I mean, any -- because we are getting a lot of those.

DR. MAURO: Yes.

CHAIR GRIFFON: Any sense of where that -- that time frame?

MR. HINNEFELD: I would have to go find out from Jim.

CHAIR GRIFFON: It's on Jim's stack of --

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay.

DR. MAURO: If it's any consolation, in all the dose reconstructions that I looked at where I brought that issue up, usually with AWE is a lot of that.

CHAIR GRIFFON: Yes.

DR. MAURO: Residual period and in the resuspension and the ingestion. Those always contribute to a very, very small portion.

CHAIR GRIFFON: Right.

DR. MAURO: Now, so I mean, it's

good that we get it cleared up.

CHAIR GRIFFON: Right.

DR. MAURO: It's been around for a long time, but, at the same time, it really -- in none of the cases I can remember was it something --

CHAIR GRIFFON: Flipped.

DR. MAURO: Yes, it's going to flip anything.

CHAIR GRIFFON: It's probably unlikely.

MR. HINNEFELD: And in fact --

DR. MAURO: But it's been hanging out there a while.

MR. HINNEFELD: -- the resuspension issue is in OTIB-something.

DR. MAURO: Nine. Unless you have the new one.

MEMBER MUNN: OTIB-53 is in the final review.

MR. HINNEFELD: No, there is --

CHAIR GRIFFON: That's a separate

nine.

DR. MAURO: That's separate, that's a different thing.

CHAIR GRIFFON: We just talked about resuspension in one of the --

MR. HINNEFELD: Well, I mean, a recurrent --

CHAIR GRIFFON: The discussion going on is down.

MR. MAURO: Yes, it's everywhere. It's everywhere and it's always 10^{-6}. And we always come back and say that is --

CHAIR GRIFFON: But Dow is the first place we have seen a fairly specific response, right?

MR. HINNEFELD: There is -- I think the debate is farthest along in Dow.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Because it --

DR. MAURO: Dow two.

MR. HINNEFELD: -- relates to the

residual period.

DR. MAURO: Absolutely.

MR. HINNEFELD: The thorium residual period at Dow.

DR. MAURO: Absolutely.

MR. HINNEFELD: And the discussion I think is farthest along there. So and that's part of Dow residual was that -- I can't remember the TIB number, but I believe there is an OTIB.

DR. MAURO: Seventy.

MR. HINNEFELD: Is it 70 that talks about resuspension? And is a more formalization, a more formalized setting-out of what has been stated in some of these site profiles. So you know, it's farthest along there and maybe that discussion will end up, you know, at the end of the discussion.

CHAIR GRIFFON: That might be on the final document.

MR. HINNEFELD: Maybe the discussion there may even have the final. We

would hope that we would have one solution to it.

CHAIR GRIFFON: Right.

MR. HINNEFELD: As opposed to multiple solutions to a question.

CHAIR GRIFFON: All right.

MR. HINNEFELD: And then that could be passed on through.

CHAIR GRIFFON: Yes. Moving on to 105.1, I have that NIOSH agrees and the case will be reevaluated. Is this -- oh, this is a DCF thing.

MR. HINNEFELD: Which number are you at?

DR. MAURO: One oh five point one.

CHAIR GRIFFON: One of five point one, yes. It's a PER review, I think.

MR. HINNEFELD: Okay.

CHAIR GRIFFON: Reevaluated under PER, right?

MR. HINNEFELD: This is -- this used min/max in the tool. And from the broad

min/max, not the 18 min/max. And that has been changed and, I believe, all these cases have been reconsidered.

CHAIR GRIFFON: Okay. That's right. And that's where it starts. So maybe it has already been reevaluated.

MR. HINNEFELD: I believe.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: But I could take a look.

CHAIR GRIFFON: And for these PER cases, I think, this is a good example of what you are saying that we may not want to relook at all these cases, but we may want to sample some of them.

MR. HINNEFELD: Yes, sample.

CHAIR GRIFFON: We had fun with those before, so if we show, reevaluated under PER review, that could be a reason. You know, once we find out it has been reevaluated, then we would -- we could sample from those just -- or you know, yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Do them all, but unlikely. I think we would want a sample from some, you know.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: TIB-49 comes up -- I mean, Super S I see a lot of them that are reevaluated for Super S.

MR. HINNEFELD: There were a lot.

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: There were a ton.

CHAIR GRIFFON: Right.

MR. SIEBERT: So 105.1 is one that is being returned to us because it is Super S?

CHAIR GRIFFON: It is also Super S.

MR. SIEBERT: Because it's got that, too.

CHAIR GRIFFON: Yes, yes. So okay. But I think that covers 105.

MEMBER MUNN: All of them?

CHAIR GRIFFON: I think so, yes.

MEMBER MUNN: And before we go there --

CHAIR GRIFFON: Yes.

MEMBER MUNN: -- I stuck my nose earlier into 104.7, asking about OTIB-53 being on final review and we said no, that what we were talking about is --

CHAIR GRIFFON: Oh, yes.

MEMBER MUNN: But are we done with 53 yet?

MR. HINNEFELD: It took 53s review a bit longer than anticipated.

MEMBER MUNN: Okay. So it's still there.

MR. HINNEFELD: There is still discussion about the 53 and its utility, you know, how useful is this really going to be as it's put together. It's recycled uranium.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Non-uranium elements and recycled uranium.

MEMBER MUNN: I'm trying to find a

defensible reason to close any one of these.

DR. MAURO: Just as a quick aside on the recycled uranium issue, I know that they like came up on a number of occasions. Whenever we look at Fernald, you go with 100 parts per billion as being a default only.

CHAIR GRIFFON: Yes.

DR. MAURO: And then when you go with the AWE's generic approach adopted in the TBD-6000, you go with 10. And we understand the reason now. In this new Ru, is there -- are you stretching that story further? Is there more to the story? Is that basically where you are coming out?

MR. HINNEFELD: I don't know what the numbers are, to be honest, in terms of what the value is, but it's supposed to rely-- it's supposed to provide more content support for the numbers selected. And I don't -- and I think the numbers selected may go from, you know, site profile to site profile.

DR. MAURO: Oh, so you might

change?

MR. HINNEFELD: Yes. It may not be universal or it may universally apply. I just am not that familiar with this.

MR. SIEBERT: Our understanding is going to be that if you have site profile numbers, those are what are --

MR. HINNEFELD: Those are what are used.

MR. SIEBERT: -- used.

DR. MAURO: Okay.

MR. HINNEFELD: If you don't have that, then you go back and --

CHAIR GRIFFON: So in this case, Superior Steel, I don't think you have a site profile, do you or do you?

MR. HINNEFELD: There is a Superior Steel.

CHAIR GRIFFON: Oh, there is?

MR. HINNEFELD: I remember doing it.

CHAIR GRIFFON: So that was the

question on this one. I'm glad you saw that one. I missed that publication. Is this a --

MR. HINNEFELD: Is this a TIB-53 question or is this more of a site profile question?

CHAIR GRIFFON: I think it's more a site profile question, if it's Superior Steel.

CHAIR GRIFFON: And then it came down to that mini site profile review kind of event. And this and that. I mean, I don't --

DR. MAURO: So we didn't do -- I mean --

CHAIR GRIFFON: You didn't really do it on Superior. We just started that later, right? I think, yes.

DR. MAURO: Yes, keep in mind that the mini site profile or AWEs were limited to Huntington, Hawshaw and Bridgeport Brass.

CHAIR GRIFFON: That's right.

DR. MAURO: Now, any others are simply an artifact of the fact that we had a

review for the case, like Superior Steel--

CHAIR GRIFFON: Right.

DR. MAURO: -- and others did not really get the treatment that we're getting at Hawshaw, for example. There's actually three stand-alone, you know, 30-page --

CHAIR GRIFFON: Right.

DR. MAURO: -- attached to the eighth set. In the back of the eighth set you will see an appendix where we reviewed them, but we didn't reuse Superior Steel like that.

CHAIR GRIFFON: So I guess that's the question in 104.7, I'm looking to see if I have other notes in here.

MR. HINNEFELD: So then this comment really would be a 53. This would relate to the site profile.

DR. MAURO: Right.

CHAIR GRIFFON: Yes, my note like yours, Wanda, said TIB-53 last time, but I made a mistake on that. It's really --

MR. SIEBERT: Well, I don't think

it's a mistake. I think it's the thought process from 53 has changed as to what we are going to use it for.

CHAIR GRIFFON: Okay.

MR. SIEBERT: And we may need to determine does 53 have an applicability here?

CHAIR GRIFFON: All right. So what is the -- it's really handled, it has got separate numbers in the site profile?

MR. SIEBERT: Right. The site profile has plutonium and neptunium numbers.

CHAIR GRIFFON: And let's refresh the discussion on that, John, if we can.

MR. HINNEFELD: The finding is that where did you get the number?

CHAIR GRIFFON: Right.

DR. MAURO: Yes, I can help out a bit here.

MR. HINNEFELD: Yes.

DR. MAURO: Most of the AWEs I did and very well from when I come across recycled uranium, if you don't give a rationale to why

you picked a given parts per billion with uranium or neptunium, I would say, please explain.

Now, my experience is when you did explain, when you, for example, can in after with the 10 part per billion number, I think, on one site and then I was able to research that, you find out that that is probably not a bad number. And -- but when you don't say anything about it, I think, there is a -- the onus -- it may turn out simply to be make reference to, well, if 53 is ready, great, or make reference to some other rationale section that you have had in another, other dockets.

Because I believe there is a general guideline that DOE used. Anything leaving Fernald that was going to be -- that was going to go somewhere else as AWE for any kind of special metal processing, for example, there was a tech spec saying it could not be more than 10 parts per billion.

MR. HINNEFELD: That was most of

the theory complex.

DR. MAURO: Right, right. But Fernald was special, because you did handle and we just went through this on a Fernald Work Group.

MR. HINNEFELD: Yes.

DR. MAURO: And stuff came in pretty high.

CHAIR GRIFFON: Some stuff, yes.

DR. MAURO: Yes, yes.

CHAIR GRIFFON: From Paducah, I mean.

DR. MAURO: From Paducah.

DR. MAURO: So again, this might be an easy one to fix.

MR. HINNEFELD: It sounds like probably where we were, my thought process when I referred to recycle the OTIB was that the research that they are going through to prepare the recycled TIB should inform us on whether, you know, it provides the support for these numbers. That should be what I -- how I

phrased it.

I don't think I phrased it that way. But that should have been what I said. And so hopefully that research has been accomplished. I'll just have to go back and find out from that research what kind of support do we have for these numbers and make that be like Superior Steel.

CHAIR GRIFFON: Okay. So we still -- we just need -- this is waiting a NIOSH response. I think I'm going to leave it like that rather than -- because I don't think it's going to be TIB-53 necessarily.

MR. HINNEFELD: Right, yes.

CHAIR GRIFFON: So NIOSH response on the basis for the numbers.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Basis for the concentrations. Okay.

MEMBER MUNN: Response on what did you say?

CHAIR GRIFFON: Basis for the

trans -- concentration.

DR. MAURO: Selected value.

CHAIR GRIFFON: Right.

DR. MAURO: Found in the Superior Steel case, the number. There is no justification there.

CHAIR GRIFFON: And it could be pretty straightforward like you said in there. Stuff came from here, we know that the tech spec was this and, you know, so hopefully that will be fairly easy to resolve. Okay. Thank you, Wanda, for -- I missed that one.

MEMBER MUNN: Oh, well.

CHAIR GRIFFON: Even though it didn't get closed, I didn't want to lose it.

105 is the reevaluated one, right?

DR. MAURO: Yes.

CHAIR GRIFFON: And that covers 105 and 105.1, 105.2. 105.3 I think I have procedures modified. This is PROC-006. "NIOSH procedure is modified and case being reevaluated for other," you know --

MR. SIEBERT: This is the over two --

CHAIR GRIFFON: -- reasons. Right. This is the --

MR. SIEBERT: Which is automatically rolled in.

CHAIR GRIFFON: Right. All right. 105.4 has been revised, is my note.

MR. HINNEFELD: That is the DCF. That's the full range DCF.

CHAIR GRIFFON: Okay. And again it is being reevaluated.

MEMBER MUNN: So it's still open like that because of the reevaluation?

CHAIR GRIFFON: Yes, open only in the sense of the whole case, but, finally, itself I think is closed.

DR. MAURO: Finally it was closed.

CHAIR GRIFFON: And then that's that question of the case is being reevaluated, but we may not go back and look at all these cases that were reevaluated,

based on PERs. When they say -- you know, because we have got -- we're going to have a lot of them and we made this sample from the ones, you know.

MEMBER MUNN: So as a procedural--

CHAIR GRIFFON: I know, this is difficult, because it's closed, but it is open.

MEMBER MUNN: Yes.

CHAIR GRIFFON: You have findings that are closed, but the entire case is being reworked. Right, I think that's what you are thinking of.

MEMBER MUNN: Well, yes, and I'm still looking for a way to close --

CHAIR GRIFFON: I know.

MEMBER MUNN: -- every single one of these items and leave others open --

CHAIR GRIFFON: Right, right.

MEMBER MUNN: -- on that specific -- on that group of findings. It just seems cumbersome for us to continue to look at

materials that we know is essentially closed, especially if the major issue is still being tracked by one of the other open issues under that same number.

CHAIR GRIFFON: Well, I wonder if we need to -- I've got to think about this. I was just wondering if we need to have something like 105 and then 105.1, 2, 3, 4, 5, 6, 7, whatever, but 105 says the case is being reevaluated, you know. And that holds our place in the database. Then the separate findings, you know -- I don't know.

DR. MAURO: What triggers, I mean, a PER and the need to go back to a case? That's one thing. But then when you go into case, they can believe it was never -- it's not even a PER. I mean, we still have -- for example, I see there are some medical issues.

CHAIR GRIFFON: Right.

DR. MAURO: Why did you use that organ instead of this organ? Well, that's not going to -- you know, now, the degree to

assess the PER is great. But that's not going to trigger the PER. There is usually a PER -- in other words, as I understand the PER --

CHAIR GRIFFON: Yes.

DR. MAURO: -- there is a particular issue that triggers the PER. When you go back and do the case under the PER, you pick up everything else that goes with it.

CHAIR GRIFFON: Yes.

DR. MAURO: And that's always a convenience.

CHAIR GRIFFON: Yes.

DR. MAURO: But that doesn't mean you've got to catch this one, because you may not consider this to be an issue.

CHAIR GRIFFON: I agree, yes.

DR. MAURO: In other words, it's medical. You may look at it and say well, that's -- you know, we don't -- you know, so I think that unfortunately the fact that a given case is undergoing PER redo it -- somehow you would like to capture that in the database.

MEMBER MUNN: Yes.

DR. MAURO: But that doesn't mean any particular issue is closed. You see what I'm getting at?

CHAIR GRIFFON: Yes.

DR. MAURO: Because it may have nothing to do with the PER.

MEMBER MUNN: Yes, yes. But if the particular issue is closed --

DR. MAURO: If it's closed, it's closed. Yes, it should be closed.

MEMBER MUNN: But as long as we have a case like this one where it is still being reevaluated, then we --

DR. MAURO: It's closed.

MEMBER MUNN: -- essentially cannot close any --

DR. MAURO: Well, you can't close it.

CHAIR GRIFFON: Right.

DR. MAURO: Yes.

MEMBER MUNN: -- more of the

items.

DR. MAURO: I was going the other way.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I mean, I don't think it's a problem, because, you know, eventually, we're going to close a whole lot of them all at once. I mean, I don't think it's that big a deal, right?

DR. MAURO: I mean in a way you could say okay, let's say it turns out a loss to the system. We close out all the issues, let's say there are dozens and dozens of cases where we closed out all the issues, except they may still be active under the PER, that's all that's left. That is once the PER issue is closed and resolved to the satisfaction of the PER review process, doesn't that automatically rip right through all the ones that are still alive?

Because we have closed the -- what

I'm trying to say is if you have a whole bunch of real cases that have been closed, the case -- some of the issues have been closed. And the only thing -- the reason why they are remaining open is because of the PER. All right?

Then once the PER is closed, in theory, this whole thing should -- they should all be closed.

CHAIR GRIFFON: No. They should all be flagged.

DR. MAURO: Flagged. No, I'm sorry.

CHAIR GRIFFON: Right, yes.

DR. MAURO: They should all be flagged that they should, in theory, be closed.

CHAIR GRIFFON: Right.

DR. MAURO: But just take a look and make sure.

CHAIR GRIFFON: Right, yes. And then that's what I was saying, taking a look

and making sure. It may not be looking at every single case. I mean, I don't think we want to do that, but look at some sampling of them.

MEMBER CLAWSON: I don't think, you know, where we got like the faster/slower, you know, some of these ones that we had a lot of big ones, like the sampling ones, but something that has been kind of bothering me as we go through here is the exact same thing, how do we finally finalize?

You know, we can do one that is like procedure. We've got a few oddball ones out there. And how do we track these and make sure that --

CHAIR GRIFFON: Oh, yes, those got to be closed individually. I mean, I'm thinking we're talking like the DCF, like the LOD over 2, like the Super S, those we are going to have. You know, lots of cases fall into those. And those are the ones I would say I don't know that we need to necessarily

do 100 percent redos, you know.

But the other ones, we have to track individually, if we can, yes.

MEMBER CLAWSON: And I am just wondering --

CHAIR GRIFFON: There's no way to get around that, I don't think.

MEMBER CLAWSON: I am just wondering how we are going to fit this in to this matrix.

CHAIR GRIFFON: Well, I think the one mechanism is if we defer to certain procedures or whatever, then it goes to Wanda's group, but when they complete their work, we will get -- it will red flag the system and the other database, the other table saying it has been closed out in the Procedure's Group, you know. And then we can relook at it. We don't, you know --

DR. MAURO: Remember the PER on the -- because PERs are done on the Procedure's Group. And remember what they

really do. They really say okay, they really try to answer two questions. One, has NIOSH instituted a process where it has identified all of the cases that theoretically could have been impacted?

Second is the fix, that is the --

CHAIR GRIFFON: Reasonable.

DR. MAURO: -- fixed, scientifically sound and reasonable that it has been adopted. Now, all we then do, the last step in our process, is to randomly select three. In fact, the Board randomly selects three cases to say okay, almost like proofing principles. Yes, in fact, just what they said they did. The PER was, in fact, done in these three cases.

CHAIR GRIFFON: Right.

DR. MAURO: That serves as sort of a prima facie that yes, in fact, it did work and it was implemented.

CHAIR GRIFFON: Yes.

DR. MAURO: Now, what I'm hearing

is there may be dozens of others.

CHAIR GRIFFON: Well, then I can tell you what I was thinking anyway is -- because I can remember some of these. I think Savannah River, there were a couple that were reported on in 47, 48 percent. So when that note comes back from Wanda's group that this Super S thing has been reviewed and completed, you know, it's going to be tricky, because several of them have several PERs, too. So we may have to wait for all, several PERs to be closed.

But once they are all closed for a certain case and we've got a case that previously was like 48 percent and now it turns out to be 47 percent or whatever, we may want to -- you know, we may want to take another look at that one. If we had a case that was 15 percent say, it might not be as important to reevaluate that if you are satisfied on Procedure's Group.

You know, so I think we would

sample from the Dow and if we had 50 cases, I don't know what the appropriate percentage is. We can talk about that more. I'm sure it's not 100 percent, in my mind anyway. I don't think we go back and look at 100 percent of them.

DR. MAURO: There are certain big ones.

CHAIR GRIFFON: 10 percent maybe, you know.

DR. MAURO: There is high fired, which have, I don't know how many, hundreds.

CHAIR GRIFFON: High fired has a lot.

DR. MAURO: Thousands.

CHAIR GRIFFON: Thousands, right. So we are not going to have construction work on the big ones. We're not going to open up every one, obviously, but I think the important ones to look at are going to be those borderline ones, because we have seen this already. And if they modify something on

the Super S, and if they were over favorable in other areas, they may go back and redo the specifications.

DR. MAURO: Yes, sure.

CHAIR GRIFFON: So the whole thing could look very different than when we reviewed it.

MR. HINNEFELD: That's for sure.

CHAIR GRIFFON: So I think we might have to take another look at some of those, you know.

DR. MAURO: Are you saying like have a -- I mean, if you want to standardize it, you would just say anything over 40 percent would be looked at dramatically?

CHAIR GRIFFON: I haven't got that far in my thinking, but that's something to consider. We can, you know, look at some sort of screen cut off, you know. Yes. But I think that's the way it will work, you know, eventually.

MR. HINNEFELD: We'll get there.

DR. MAURO: Or it could be argued if the PER process -- if SC&A review the PER, pick randomly the three, they all scored well, solve it.

CHAIR GRIFFON: Yes, but it's different on a case. Like I just tried to describe, John, the, you know, PERs could be all fine and according to the procedure that you reviewed, but when they adopted all those changes in the pre-PERs --

DR. MAURO: In combination.

CHAIR GRIFFON: In combination for this one case, then they said whoa, we're over 51. You know, it's like 53 percent. Well, wait a second, we gave them -- we were too generous in this other area, we sharpen our pencil as Jim used to say, and it goes down below.

So I think there is other considerations on the case level than on the-- you know what I mean?

DR. MAURO: Right.

MR. KATZ: So the PER is just to prove the principle.

CHAIR GRIFFON: Right, right.

MR. FARVER: You know, when you evaluate a case on whether a PER will have an effect on it, is that whether the PER will raise the overall dose or raise the POC?

DR. MAURO: Well, always --

CHAIR GRIFFON: Yes, that's a procedure's review question for you guys. When you review the PER, how do you do? What's your screening mechanism?

DR. MAURO: Well, your concern is that when it comes to a real case where --

CHAIR GRIFFON: You have multiple --

DR. MAURO: -- the PERs play at the same time --

MR. FARVER: What I was getting at is if you have one -- if you look at a case like Super S, you say well, maybe Super S can apply to this person. So it would have no

affect on that case.

DR. MAURO: Right. That wouldn't even make it.

MR. FARVER: But maybe we have one with dose conversion practice. It would raise the dose a little bit, but maybe not enough. Maybe there is a third PER out there that will raise it a little bit more, but if we're just evaluating that PER, you can cut it and say well, that PER in itself won't have an effect on that case or won't raise it over 50 percent.

CHAIR GRIFFON: Yes.

MR. FARVER: Cumulatively, if you go back and work them all --

CHAIR GRIFFON: That's a question we should be asking NIOSH in the PER review process, yes.

DR. MAURO: The fact that we have sophistication in asking these questions, we've come a long way. I mean, you know.

CHAIR GRIFFON: Yes.

DR. MAURO: The overlap didn't affect the PERs.

CHAIR GRIFFON: Yes.

DR. MAURO: This is the first time we've talked about it.

MEMBER MUNN: Yes, it is.

MR. HINNEFELD: I mean, we've talked about this and --

DR. MAURO: Sometime beforehand.

MR. HINNEFELD: -- I think so. I mean, how do we know when a case is reworked? That, yes, we took, you know, everything --

DR. MAURO: Okay.

MR. HINNEFELD: You asked me how many cases that were reworked, that have been reviewed, have been reworked through the PER and are all the way back through the system.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And there are two and I sent them.

CHAIR GRIFFON: Yes, you sent those. You emailed those, right.

MR. HINNEFELD: Yes. So there are two cases out there that have been all the way through the system, so only at --

CHAIR GRIFFON: That were on our initial list of 140 cases.

MR. HINNEFELD: Yes. You know, that isn't the point, when these should be revisited that are available to revisit them.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: And we also talked about --

CHAIR GRIFFON: But Doug is asking a question how you decide cases need to be -- yes, what cases need PER review, right.

MR. FARVER: Is it based on a single PER or is it based on the cumulative effect of if there is multiple PERs?

CHAIR GRIFFON: What triggers a case to be reevaluated based on PERs?

MR. HINNEFELD: Oh --

CHAIR GRIFFON: Because you have this multiple -- this question of multiple

PERs.

MR. HINNEFELD: The PER defines its universe that these are the cases that could be affected upwards by this.

MR. FARVER: Yes, well, we reviewed --

CHAIR GRIFFON: Any cases that could be affected upward?

MR. HINNEFELD: Yes.

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: We look at every one.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: And we confirm --

CHAIR GRIFFON: That answers that question.

MR. HINNEFELD: Okay, yes.

DR. MAURO: Rock solid. We review the thoracic effect. I'm sure Hodges --

CHAIR GRIFFON: That answers that question.

DR. MAURO: And one of the areas where we found rock solid was doing that. You know, you exhaustively checked to make sure that this case had all -- been affected.

CHAIR GRIFFON: Yes.

DR. MAURO: And this was the thoracic lymphoma.

MR. FARVER: For any case that can be raised upward gets reworked.

DR. MAURO: I think denial.

CHAIR GRIFFON: Yes.

DR. MAURO: Any denial.

CHAIR GRIFFON: Any denial.

DR. MAURO: Any denial couldn't be affected. And all TIB -- my understanding is all PERs will be denied, because they could affect it upward, otherwise, it wouldn't be a PER.

MR. HINNEFELD: Yes. If the change reflects -- would require --

DR. MAURO: So by definition --

MR. HINNEFELD: -- we don't do a

PER.

CHAIR GRIFFON: Right.

MR. HINNEFELD: A change that puts -- raises the dose or raises the dose even for some. The ones that are potentially affected are the universe and they are all considered. Some of them -- and they are all -- there have been a number of evolutions of the PER process and that's based on discussion between us and DOL, because there are multiple things that weigh into doing this as well as you can.

One of which is your communications with the claimants and so on and so forth and there is a lot involved and this is fairly complicated with that aspect of reviewing a case. And so there have been a series of, you know, revisions to the PER process.

For about the past year, we have not initiated any new ones and the -- we know that there are going to be some, because based on site profile review and things like that.

We know there are going to be technical changes that are going to affect cases that were already done.

Those type of changes aren't finally published yet and so when we finally publish them, that's when we are going to have to come to grips with DOL about okay, we're going to do these the same way we did, because we got some feedback and we got a lot of information and it's a very difficult coordination with DOL to deal with the claim in this fashion.

So based on that, we have still some discussions to be made before we would resume. I think both of our agencies would want to have a conversation about what is the best way, based on all of the feedback we have received so far, that we want to deal with cases that would be in this.

None of them will get left out. They will all be reconsidered in the measurement and all the changes will be

considered in every one of those cases. But the -- it may not be that every single one gets reworked, which was what was done most recently. Okay.

CHAIR GRIFFON: All right. Back to the matrix. We're going to get through this before the break, I know.

DR. MAURO: We keep going into this deeper.

CHAIR GRIFFON: No, no, I know. I know. 105.5, I have that NIOSH agrees with the finding on this medical dose question.

MR. HINNEFELD: Well, yes, it was as if --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: It kind of goes away. It is sort of self-closing though, because if you read the entire response, the site profile, the values in the site profile have been revised downward based on more complete research.

CHAIR GRIFFON: Right.

MR. HINNEFELD: So even though given the guidance in place when the dose reconstruction was done, the dose was underestimated. If it were done by today's guidance, it was still overestimated.

CHAIR GRIFFON: Yes, I said NIOSH reviews the finding, although the value applied was over.

MR. FARVER: And this is what we could see on these cases that are evaluated on PERs. So the overall dose will go down, some parts of it.

MR. HINNEFELD: Very often, very often. A lot of the early plutoniums were done with sort of intentional efficiency overestimates.

MR. FARVER: Yes.

CHAIR GRIFFON: So then 105.6 I also have SC&A agrees and no further action. 106?

MEMBER MUNN: You are reading statements that I don't have in my --

CHAIR GRIFFON: Okay. Yes, that's why I'm going through them one by one.

MEMBER MUNN: Okay.

CHAIR GRIFFON: Just to make sure, yes. I had agreement on 105.6, but -- with SC&A.

MEMBER MUNN: Okay. So what you said, I was puzzling over what I have under 105.5 as opposed to what you were saying. You are saying, essentially, 105.5 is --

CHAIR GRIFFON: Is closed.

MEMBER MUNN: -- done.

CHAIR GRIFFON: Yes, yes. 105.6 also I have closed. I think what happened here is I think Stu or NIOSH provided more of the IMBA runs and, Doug, I think you looked at them and then you were comfortable with that.

MR. FARVER: Correct.

CHAIR GRIFFON: So that closed it out.

MEMBER MUNN: And the same is true then about 6?

CHAIR GRIFFON: That's 105.6, that's the one I was just talking about, yes.

MEMBER MUNN: Right.

CHAIR GRIFFON: And then 106.1 --

MEMBER MUNN: Already closed.

CHAIR GRIFFON: It's already -- for 106.1, I have NIOSH agrees, no affect on the case. It's already compensable. Right.

MR. FARVER: Yes, this is the standard range of dose conversion factors.

CHAIR GRIFFON: And I have the same thing for 106.2/106.3.

MR. FARVER: Yes.

CHAIR GRIFFON: 106.4, I'm looking through two different versions of my matrix here. I don't have -- anybody have a status for that one?

MR. FARVER: This is the fission products, which would be OTIB-54.

DR. MAURO: Fission products, OTIB-54, yes.

MR. FARVER: No, no, no.

DR. MAURO: 54 is the fission product.

MR. HINNEFELD: Yes, this was done before, but --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- fission products should instruct --

CHAIR GRIFFON: Should count.

MR. HINNEFELD: -- whether this was sufficient or not.

MR. FARVER: This is one of our standard findings from the Savannah River case.

MR. HINNEFELD: Yes.

MR. FARVER: Probably.

CHAIR GRIFFON: But I don't have a resolution. Did you?

MR. HINNEFELD: Well, it's a compensable case.

MR. FARVER: It's a comp case.

CHAIR GRIFFON: Yes, it's compensable.

MR. HINNEFELD: So I mean, these are kind of closable.

CHAIR GRIFFON: Yes, yes, yes.

MR. HINNEFELD: And this finding is not going to get lost, because it's elsewhere.

MR. FARVER: It's many times.

MR. HINNEFELD: Yes.

MR. FARVER: It comes up in the eighth set many times.

CHAIR GRIFFON: But is it referred to the Procedure's Group?

MR. FARVER: I don't know that it has ever been closed.

MR. HINNEFELD: Procedure's Group is dealing with that, isn't it?

CHAIR GRIFFON: 54?

DR. MAURO: It's on the Arjun, yes. And we have basically, I remember --

CHAIR GRIFFON: Well, but this is before TIB-54, right?

DR. MAURO: This is, yes.

MR. HINNEFELD: But the issue --

CHAIR GRIFFON: TIB-54 should provide the support for this finding in other contexts. I really think since this is a compensable case, it can be closed.

MR. HINNEFELD: Well, yes. In this one. In other locations, you would want to address it and what the -- the thought that somebody said earlier, the technical research and discussion to address --

CHAIR GRIFFON: But for something to be closed, we have to have SC&A and NIOSH agreeing and you can't agree if it is being transferred to -- you know, what I mean?

MR. HINNEFELD: Well, I think we could both agree that this can be closed, because it's a compensable case.

MEMBER MUNN: Yes, yes.

MR. FARVER: Because I mean --

MR. HINNEFELD: I mean you can keep open where -- I don't understand how you are going to close things. I think you guys

are devising a system that is going to keep findings open for a very long period of time.

MEMBER MUNN: Yes.

MR. HINNEFELD: When, in fact, you could adopt different terminology, rather than keep these findings open.

MR. FARVER: This issue is not to press this case.

MR. HINNEFELD: You keep open for a long, long time and they are going to be, essentially, at bed and in rest, but they won't be closed, based on what you are adopting.

MEMBER MUNN: I think it's closed.

CHAIR GRIFFON: Okay. We just closed three in a row. I don't know what you're getting at.

MR. HINNEFELD: I was talking about what you were talking about earlier.

CHAIR GRIFFON: Okay. Anyway --

MEMBER MUNN: Yes.

MR. HINNEFELD: And keeping all

these things open, keeping all these findings open, because this case hasn't been reworked yet. Okay?

MEMBER MUNN: Yes.

MR. HINNEFELD: All these technical questions raised by this --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: -- raised by these findings, these are all addressed. These are all answered. The workbooks are changed.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: All that is done.

DR. MAURO: And this case is not going to be revisited, because it has been compensated.

MEMBER MUNN: No.

MR. HINNEFELD: I agree, I agree. But what I'm saying is you are going to be carrying a status other than closed on each one of these findings on a case that you think you might want to revisit, because it was reworked on a PER. Not this one, but one that

was.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: You're going to carry all these findings as open when, in fact, they are completely to bed and the only thing that has to be done is to see did this case get redone correctly when a whole raft of changes were made on it when it was done -- when it was redone on a PER.

CHAIR GRIFFON: Right.

MEMBER MUNN: Yes.

MR. HINNEFELD: You are keeping things -- you are designing a system that is going to keep these things open for a very, very long period of time when the technical issue that gave rise to the findings is put to bed. That's what I'm saying.

MEMBER MUNN: And that was my --

MR. HINNEFELD: It's your system.

CHAIR GRIFFON: I think if we would --

DR. MAURO: I would like to repair

this a little bit. It's really one of how much proof is sufficient to satisfy the work open, that's really what we're talking about. If we go through -- let's say a case was denied. And it was -- and it triggered -- and it is part of the PER umbrella, okay. We go through the case and we address all the issues, other than the ones -- the one that is the PER issue.

Let's say it turns out to be a high fire plutonium. Well, it turns out to be thoracic lymphoma. But everything else dealing with x-rays, dealing with LOD over 2, whatever it is, and they have also been part and parcel, we have closed. So the only reason this thing remains open is because there are certain findings in that case that are part of a PER process that -- and that has been implemented or is being implemented, etcetera.

Now, so that's where we are in time. Now, we go through the PER. And what's

a perfect example would be the thoracic lymphoma. We went through that PER. We found favorably regarding the PER. Of course, I don't think it has been closed out by the work group yet. I think it is still alive. But let's --

MEMBER MUNN: The PERs are hanging.

DR. MAURO: Yes. Well, let's go through the thought process. Okay, fine. The end -- the process is finished, including the three cases that are proof of principle. And if the Procedure's Group agrees yes, we believe this PER, it's issues, all issues closed, we'll close them both.

Now, we have this case. The only thing we know that is still alive in this case that is still keeping it open is the fact that we're waiting to hear from the PER group whether or not it has been satisfactory closed.

Now, I would argue that's the

purpose of the three cases, which is the proof in principle, and not force us to go back and do 3,000 additional -- check every single one of those thousands of thoracic lymphomas and/or to go back and keep those open until we look at every one of them.

Now, I'm taking what I would, I guess, consider to be one way of looking at it. That's the reason we do the proof of principle.

MR. HINNEFELD: But you are arguing the extremes, too. I mean --

CHAIR GRIFFON: Actually, John --

DR. MAURO: I'm sort of supporting this.

MR. HINNEFELD: You are describing the situation that I'm worried about.

DR. MAURO: Right.

MR. HINNEFELD: You know, in a certain sense, because like I said, this is your guy's system and you do what you want, you know.

DR. MAURO: Yes.

MR. HINNEFELD: I'm just offering this. By the system you have described, that means that for any of these findings that we have a PER on --

DR. MAURO: They are open for a long time.

MR. HINNEFELD: -- they are open for a long time, because how long will it take the -- because it won't close until the Procedure's Working Group reviews the specific PER.

DR. MAURO: Closes it and then comes back here again.

MR. HINNEFELD: Right. And then closes it. And there have been so far 30 PERs. Now, about 10 or 12 of those don't count, because they were early on and really done far differently. But you are probably talking about 15 or more PERs that were, you know, done in this most recent round.

DR. MAURO: And the number of

cases --

MR. HINNEFELD: Were done in this fashion.

DR. MAURO: -- affected are thousands.

MR. HINNEFELD: Thousands. But that's not where I was going.

DR. MAURO: Okay.

MR. HINNEFELD: Because the workload that I'm looking at is the Procedure's Working Group, one by one, looking at every one of those PERs --

DR. MAURO: Yes.

MR. HINNEFELD: -- and when they have done -- when you have done the PER review in the three cases and said okay, these are good and going back and closing it, that's the long process.

DR. MAURO: Yes.

CHAIR GRIFFON: Right.

MR. HINNEFELD: To close these. If that's what you want to do --

CHAIR GRIFFON: Well, what's the alternative?

MR. HINNEFELD: The alternative is not to --

CHAIR GRIFFON: Close them without reviewing them?

MR. HINNEFELD: -- treat the finding as a finding. When the technical change that fixes the finding has been made, the finding is closed.

CHAIR GRIFFON: But if you haven't reviewed the technical change, how do you know it's closed until you have agreed on the change?

MR. HINNEFELD: Well, most --

CHAIR GRIFFON: Just to say something is being changed --

MR. HINNEFELD: Well, in the case of the -- the case of what we were just talking about, the Savannah River Tool and the DCF range, it's done. It's fixed. It's changed. They have seen the new version.

CHAIR GRIFFON: Exactly. I mean, I don't even know how we get to this argument.

MR. HINNEFELD: Well, no. What we just said. We said NIOSH agrees no effect on case.

CHAIR GRIFFON: But your finding is still like 105, you're saying, we're going to keep these open, because we don't know how to --

DR. MAURO: The only reason I brought this up. Does this close?

MR. HINNEFELD: Well, for 105 it wasn't a compensable claim. It wasn't -- that's why.

CHAIR GRIFFON: That's what I'm saying.

MR. HINNEFELD: So you keep them open.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Now, here is my point.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: You're keeping these findings open.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Even though the technical changes were made, they have seen the new workbook. They know the technical change. They know that finding has been finished. Okay? And so they know the finding has been finished, but still, the finding is open, because the case --

CHAIR GRIFFON: Because you're waiting for the PER.

MR. HINNEFELD: -- hasn't been confirmed to your satisfaction. To me, it's like another column. It's not a status column on the finding.

CHAIR GRIFFON: All right.

MR. HINNEFELD: It's -- or you keep track of the case. You don't keep track of every one of those things that are open.

CHAIR GRIFFON: Well, that's what I was saying. Should we have 105 --

MR. HINNEFELD: I like the idea. And whether you call it 105 --

CHAIR GRIFFON: Maybe we can think about that, yes.

MR. HINNEFELD: -- or some other structure, what I'm saying is you are going to hold a lot of findings open when the technical change that gave rise to that finding has been corrected and we all agree it is corrected.

CHAIR GRIFFON: Right.

MR. HINNEFELD: That's what I'm -- that's my --

CHAIR GRIFFON: Well, that was my -- I guess I just don't get the idea.

MR. HINNEFELD: I mean, that's what I was trying to say before is maybe we need a 105 and then all the points and we can close a lot of the individual findings, but the case remains positively open for resampling over the PER.

MR. HINNEFELD: There is some done.

CHAIR GRIFFON: We still have to worry about the case.

MR. HINNEFELD: Right, right, right.

CHAIR GRIFFON: That's what I'm thinking.

MR. HINNEFELD: Okay. We're in agreement there. I'm not sure that's --

CHAIR GRIFFON: I didn't mean to get so energized about this. It's really against my style.

MR. HINNEFELD: I thought we had been over that ground. I just wasn't sure I had the solution. Like I'm not sure 105 is the right way to do it in the database.

CHAIR GRIFFON: Yes, I'm not sure how to do it --

MR. HINNEFELD: Yes.

CHAIR GRIFFON: -- exactly in the database. But it concerns me there is going to be a lot, you know.

MR. HINNEFELD: Oh, okay.

CHAIR GRIFFON: And we are not --

MR. HINNEFELD: Well, I was confused because this one I'm -- I thought we were in agreement on this.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: You were going --

CHAIR GRIFFON: I was thinking back to the --

MR. HINNEFELD: I'm going back.

CHAIR GRIFFON: All right.

MR. HINNEFELD: And I will say that we are not particularly timely in closing all these findings. We have not in terms of doing our part.

CHAIR GRIFFON: Right.

MR. HINNEFELD: But I don't like a lot of open findings hanging out there. I would like to have them to be closed and say, okay, we are taking action in response to the review we are seeing from the Advisory Board and we're doing these things.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And as long as these findings stay open like that, it doesn't look like we are even doing anything about what we are being advised.

DR. MAURO: It creates a false -- it's an optic that is a false optic.

CHAIR GRIFFON: Yes.

DR. MAURO: And the optics are that we have all of this stuff and when the reality of optics for all intents and purposes is it's closed. If there is some way in which you want to keep track of the fact that this is a particular one to be closed as a result of a PER process or whatever you want, that's fine. That's just a record keeping issue.

CHAIR GRIFFON: Yes.

DR. MAURO: But to allocate it to not -- to still being open is sort of unfair to you.

MR. HINNEFELD: That's the way I feel about it.

DR. MAURO: And I agree.

MR. HINNEFELD: That's the way I feel about it.

DR. MAURO: At the same time, you want to make sure we know.

MR. HINNEFELD: I absolutely understand making sure that the --

DR. MAURO: It creates another problem though, another problem.

MR. HINNEFELD: John, you keep thinking of problems.

DR. MAURO: I'm sorry. If there's no problems, there's no challenge for Wanda. I'm not being -- I'm trying to think of solutions to tell you the truth.

MEMBER MUNN: Thank you, ladies and gentlemen.

MR. HINNEFELD: What's one more, yes, what's one more.

DR. MAURO: And the challenge really is and it's unfortunate, the truth of the matter is it was never the intention on the part of the Procedure's Work Group

necessarily to have its contractor review each and every one of the PERs.

MEMBER MUNN: No.

DR. MAURO: Now, you are going to have to do that.

MEMBER MUNN: No, contraire.

DR. MAURO: But no, now we have just set up a system where that is going to have to happen.

CHAIR GRIFFON: Okay. Yes, pretty much, yes. Okay. Why don't we take a --

MEMBER MUNN: A break.

CHAIR GRIFFON: Can we take a short break?

MR. KATZ: Yes.

CHAIR GRIFFON: 10 minutes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: It seems like a good point and then we will work until lunch--

DR. MAURO: It does.

CHAIR GRIFFON: -- or whatever.

MR. KATZ: 10 minutes, guys, 10

minutes.

CHAIR GRIFFON: Yes. Okay. For folks on the phone then, just a couple minutes before 11:00, we will start back up.

(Whereupon, the above-entitled matter went off the record at 10:45 a.m. and resumed at 11:01 a.m.)

MR. KATZ: We are back on. This is Ted Katz with the Subcommittee on Dose Reconstruction review. Folks on the phone, can you hear us?

MS. BEHLING: I can hear you.

MR. KATZ: Great, Kathy.

CHAIR GRIFFON: One person.

MR. KATZ: Okay.

CHAIR GRIFFON: There's a big crowd out there.

MS. BEHLING: Thank you.

CHAIR GRIFFON: I've got to liven these meetings up, you know, bring some live entertainment or something. Okay. So after that little sidebar on -- that's all right. I

think where we stand on 106.4 then is that it is still open, but it's being deferred to this -- the Procedure's Group, TIB-54. TIB-54 is that the right one? 54, TIB-54 for fission product.

MR. SIEBERT: Yes, yes, that's the correct one.

CHAIR GRIFFON: And understanding that this was done prior to TIB-54, but, as Stu said, the research around TIB-54 is how they kind of answered it, you know.

MR. HINNEFELD: Yes, it is sort of, but, I mean, there is more to our response, I mean, about well, you know, we only got so far and we stopped and that's the claim.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: But this is sort of a part and parcel of that same finding that occurs in any other.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: In many others.

CHAIR GRIFFON: Yes.

MEMBER MUNN: TIB-54 is done, isn't it?

DR. MAURO: The review?

MEMBER MUNN: Well --

DR. MAURO: Yes, the review is done --

MEMBER MUNN: -- yes.

DR. MAURO: -- and delivered.

MEMBER MUNN: Yes.

DR. MAURO: Right.

CHAIR GRIFFON: Have we discussed it on the work group? I can't remember.

MR. HINNEFELD: No.

DR. MAURO: No.

CHAIR GRIFFON: It's in the third set, isn't it?

DR. MAURO: There are some issues.

CHAIR GRIFFON: Oh.

DR. MAURO: I mean, if it helps any, it's second order issues, not big issues.

MR. HINNEFELD: Okay, that's good.

CHAIR GRIFFON: So this could be closed shortly, but, okay.

MEMBER MUNN: Well, not really closed.

CHAIR GRIFFON: Not closed. No, just transferred, right, for the meantime? And then 107.1, okay, this is one of those ones like, I think, 105.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: And we will have to work out a mechanism. I understand your concern about having every finding listed as redo case.

MR. HINNEFELD: Right.

CHAIR GRIFFON: But we have, it looks like, a lot of agreement on the individual findings, but the case is going to be a rework, and we will have to design a system in the database to maybe show that once and not 10 times.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Or whatever.

MR. HINNEFELD: Yes. 107.4 we have --

CHAIR GRIFFON: Yes, I have that.

MR. HINNEFELD: -- some new information.

CHAIR GRIFFON: Okay. I have SC&A to review 107.4.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: And you have new?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: The easiest way for me to distribute it would be to forward what I got on it.

CHAIR GRIFFON: Okay. So we are just getting that. You didn't send that before?

MR. HINNEFELD: I didn't get it.

CHAIR GRIFFON: Oh, you didn't get it.

MR. HINNEFELD: I didn't have it until today.

CHAIR GRIFFON: Sorry.

MR. HINNEFELD: I think it may not be very helpful to discuss this today.

CHAIR GRIFFON: Yes, I know. I know.

MR. HINNEFELD: Since we haven't seen it before. But I will send it.

CHAIR GRIFFON: Why don't we just move ahead and just say not appropriate?

MR. SIEBERT: I did this one and I know Doug is going to have to look at it.

CHAIR GRIFFON: Okay. NIOSH forwarding new info today. What's today's date? Okay. So I have that you just forwarded us information on that.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay. So I'm going to move -- while Stu is doing that, I'm just going to look at 107.5. I also have agreement. And 107.6, I have SC&A to review. Is that still --

MR. FARVER: Let me go down there.

107.6.

CHAIR GRIFFON: Oh, no, no, you did give us the review on that. And I have my file note, 8/20/08, says, NIOSH agrees file should have been included. Was this just a matter of including the IMBA run?

MR. SIEBERT: Yes, this is where we had to demonstrate that the environmental dose was less.

CHAIR GRIFFON: Yes, okay.

MR. SIEBERT: In other words, if the dose --

CHAIR GRIFFON: Right.

MR. SIEBERT: -- they don't include it, but you don't know if it's X millirem, unless you see the --

CHAIR GRIFFON: Right. SC&A agrees with the technical aspects and NIOSH agrees they should have posted that work, too.

MR. FARVER: This falls under the question of what records should be included.

CHAIR GRIFFON: Included in the--

yes.

MR. FARVER: So the overall question comes up every now and then.

CHAIR GRIFFON: Okay. But it's closed on this one.

MR. FARVER: Correct.

CHAIR GRIFFON: Right. Okay. 107.6 is closed. All right. Moving on. I've got some homework to rewrite this matrix, I'll tell you that. All right.

MEMBER MUNN: Yes, yes.

CHAIR GRIFFON: Now, 110, I think, we have some new stuff on. I've been falling down on the job. I apologize. Too many matrices going, you know. I could do it when it was one at a time.

MEMBER MUNN: Yes.

MR. HINNEFELD: 110 is in the same thing I'm forwarding. 110.1.

CHAIR GRIFFON: Okay. So 110.1, NIOSH is forwarding new info now.

MR. FARVER: So we're going to

keep 110.1 open?

CHAIR GRIFFON: Yes.

MR. SIEBERT: Actually, this is simple enough.

CHAIR GRIFFON: Oh, is it?

MR. SIEBERT: This one when we were talking before --

MR. FARVER: This is the blanks and zeros.

MR. SIEBERT: Blanks and zeros, yes, that is in the dose reconstructor instructions is where you read it. It is written and we are going to be implementing it into the TBD. It just has not happened yet, since it is at Hanford.

MR. HINNEFELD: At Hanford there is a lot.

MR. SIEBERT: A lot to include.

MR. HINNEFELD: There are a lot of changes coming out.

MR. SIEBERT: A lot to include in the TBD. What Stu just sent you, H4 outlines

that and pulls the wording from the instructions that specify it.

CHAIR GRIFFON: -- you have DR Guidelines?

MR. SIEBERT: Right.

CHAIR GRIFFON: That specify this and you are going to roll them into the TBD?

MR. SIEBERT: Correct.

CHAIR GRIFFON: Okay. I mean, that's probably fine. You want to take one final look at it?

MR. FARVER: I'll look at it, but why don't we mark this one as closed and get it off the books?

CHAIR GRIFFON: Yes. Well, all right. I mean, it's not like we are down to one finding to be closed.

MR. FARVER: Well --

CHAIR GRIFFON: There's still a couple remaining. All right. So I'm going to put NIOSH is adopting language from DR Guidelines to be included in TBD.

MEMBER MUNN: I think that NIOSH was incorporating DR Guidelines in the TBD.

CHAIR GRIFFON: Incorporating, that's better, yes. Thank you.

MEMBER MUNN: And the previous note was that it was closed for our purposes on this case, but NIOSH is checking that to see if it's okay.

CHAIR GRIFFON: There is Guideline 1 in each. And then I'm going to put closed on that. And I think Stu just sent it right now, so if you see it, if you see it, Doug, and you see any concerns while we are talking, I can go back to that one. But I'm going to close it otherwise. Okay.

110.2 then.

MEMBER MUNN: Seems closed to me.

MR. HINNEFELD: There has certainly been a lot of discussion about it.

CHAIR GRIFFON: Yes, we have had a lot on this one, yes. But I do have closed at the end of the day here.

MR. HINNEFELD: We closed it last time.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: It looks like it was closed last time. What is the basis of the closure on this one? Did we reconcile whether this person should have been monitored for a new -- I think the question was the areas they were working in, right, this standard finding that we see once in a while?

MR. FARVER: Yes.

CHAIR GRIFFON: And did we reconcile whether -- I mean, I'm not reading through all this, but

MR. FARVER: Yes, it had to do with the individual's work location and whether they should have addressed this neutron dose and it went back and forth and it turns out that they did assess some kind of neutron-based dose.

CHAIR GRIFFON: Well, I'm reading

the last part of your -- the last part of the resolution column says, while it may not be appropriate to assign the full missed neutron dose, we believe that he should be given the benefit of the doubt in accordance with, you know, these partial missed neutron dose.

MR. FARVER: Right. Then you would jump back to column three.

MEMBER MUNN: Yes.

MR. FARVER: Under August 20, 2008 and then that was what they did.

CHAIR GRIFFON: Oh, so they did that?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MR. FARVER: So it kind of jumps back to it.

CHAIR GRIFFON: Which was done, okay. Okay. All right.

MEMBER MUNN: That's 111.1?

CHAIR GRIFFON: So that is closed. And NIOSH is on partial missed neutron dose.

SC&A agrees. All right. 110.3, I have SC&A agreement on this and that it is closed.

MR. FARVER: Is this 110.3?

CHAIR GRIFFON: Yes.

MR. FARVER: For the fission product?

CHAIR GRIFFON: Is that what it is?

MR. HINNEFELD: Yes. Yes, yes. If think if you are -- are you reading off the August 20th profile?

CHAIR GRIFFON: Yes, I am.

MR. HINNEFELD: Of Wanda of August 20th matrix? In the title it says updated by OCAS August 20th.

Are you reading off that, Wanda?

MEMBER MUNN: No. I am reading off my notes.

MR. HINNEFELD: Your notes. I believe --

MEMBER MUNN: Of August 19th. NIOSH agreed to forward the data, acceptable

to SC&A, no further action.

MR. HINNEFELD: Yes, no further action, right?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes, yes. That's what we --

CHAIR GRIFFON: So it's closed.

DR. MAURO: This isn't one that is referred to the TIB. It is --

CHAIR GRIFFON: No.

DR. MAURO: -- because it was dealt with in the program already.

CHAIR GRIFFON: Yes.

DR. MAURO: Yes. So it was unique.

CHAIR GRIFFON: Yes, yes. So it's not the standard fission product.

DR. MAURO: This is not the standard fission product.

CHAIR GRIFFON: Right, right, right.

DR. MAURO: To be clear why we

didn't close the other one.

CHAIR GRIFFON: All right. So that's -- yes, that is no further action. Okay. I'm up to 111.2 What happened to 111.1? 111.1 I have SC&A agreement on that.

MR. FARVER: Yes.

MEMBER MUNN: I agree.

CHAIR GRIFFON: Yes. 111.2, I have NIOSH agrees to the purchase to modify -- this is the organ selection thing, right?

MR. FARVER: Yes.

CHAIR GRIFFON: 112.1, TIB-18 review, procedures review is what I have. That's 112.1.

MR. SIEBERT: This is when compensable claims were used.

CHAIR GRIFFON: Oh, so this is a compensable one.

MR. SIEBERT: Yes.

CHAIR GRIFFON: Okay. So still put TIB-18 review, but I think it is closed for this case, because it's a compensable one.

MR. HINNEFELD: It was -- I think this finding may have been about inappropriate selecting it to use.

CHAIR GRIFFON: For our compensable, right.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: All right. We'll put closed. I mean, there is no further action on it.

MR. SIEBERT: Right, right.

CHAIR GRIFFON: So yes.

MR. HINNEFELD: I think that's what this one is about.

MR. SIEBERT: It is, .1 and .2 we're all discussing. These are very conservative and internal dose.

CHAIR GRIFFON: For?

MR. SIEBERT: For a compensable, yes.

CHAIR GRIFFON: Yes, right.

MR. FARVER: This was a special case.

CHAIR GRIFFON: Right.

MR. FARVER: This was during the time period when you were asked to expedite some cases.

CHAIR GRIFFON: Right. Okay. So but it's closed. Yes, 112.2 is the same way, also closed. 113.1, this is a Y-12 case. The first one is NIOSH agrees and TIB-8 has been revised. And no effect on the case. And that's true for 113.2 as well, 113.3 is the organ selection thing, right? Oh, no for medical dose, yes.

MR. HINNEFELD: Well, it was a practice for a time like, to choose skin or something.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Non-compensable case, because it's a high dose in the table.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: And we have since told them they should knock that off.

CHAIR GRIFFON: Yes.

MEMBER MUNN: No further action.

CHAIR GRIFFON: Yes, I said NIOSH agrees the policy has been changed and that is closed. 113.4 is -- well, what do you guys have? I have --

MR. HINNEFELD: Based on our response of 113.4, I think this is very similar to, you know, philosophically, 113.3. I believe the finding of -- I believe the findings spoke to the fact that you should not use the reactor non-uranium --

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: -- facility for Y-12. You should use the uranium non-reactor --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- facility. It's a different suite of radionuclides. It must be a TIB-2 intake.

CHAIR GRIFFON: Right.

MR. HINNEFELD: So it sounds like whether it was intentionally done as an impenetrable -- like using the skin or whether

it was just a faux pas, it still has, you know, the same.

CHAIR GRIFFON: The same.

MR. HINNEFELD: We agree it should be closed.

CHAIR GRIFFON: No further action, no effect on the case.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: So it's closed. Yes. Is that right, Doug? Are you --

MR. FARVER: I'm trying to catch up to you.

CHAIR GRIFFON: Okay, sorry. I saw a funny expression in your face. It didn't look like agreement.

MR. FARVER: Well, it is and it isn't. It is -- I agree that, yes, someone basically clicked the wrong button.

DR. MAURO: This is denial, based on the relative tool. Is that what you are referring to?

MR. FARVER: No, this is whether

to use the maximum exposure workbook.

MR. HINNEFELD: Yes, this is --

CHAIR GRIFFON: But it is a non --

DR. MAURO: And you used OTIB 2 as maximizing approach of internal?

CHAIR GRIFFON: Correct.

DR. MAURO: The only problem was which set of default set of radionuclides.

CHAIR GRIFFON: And it doesn't go away. It doesn't mean that it's not still a finding. It means we closed it out. It is resolved, I mean.

MR. SIEBERT: Right. Because in the response we said we actually --

CHAIR GRIFFON: Right.

MR. SIEBERT: -- what we assigned -- seven rem when it should have been three, basically.

MR. FARVER: Yes, and the only thing that concerns me about things like this is okay, but what's the corrective action to keep it from happening again?

CHAIR GRIFFON: Right.

MR. FARVER: Not so much for this one, but I remember reading one where --

CHAIR GRIFFON: I think that's -- I have a QA note here. DR. MAURO: Any situation like this, during the QA team process --

CHAIR GRIFFON: Right.

DR. MAURO: -- Q-18 was looking at the case and you do come across oh, it looks like they used it, but it doesn't matter. You know, still you're going to come up with the -- an even lower dose as a result. It's still non-compensable. Do you let it go or do you try to fix it?

MR. HINNEFELD: Certainly, I don't know what=s done today -- Scott, you may speak, because I rarely look at dose reconstructions today. Years ago when we were just getting going and we had this huge backlog of dose reconstruction facing us, we didn't correct this. We would not have

corrected this. We would have said well, it's not right that the dose is higher than it should be and it's a non-compensable phase. We're going to get it out.

So that was our normal mode of operation in reviewing a case, these cases for a while. I can't say on any given finding you show me, was this our instruction when this was -- when this one came through? I don't know.

DR. MAURO: Has that changed, by the way? I mean, are you now --

MR. HINNEFELD: It sounds like what you are feeling --

DR. MAURO: The rationale is still valid.

MR. HINNEFELD: The rationale is still valid, except that we are a lot more sophisticated now. We have a lot more technical documents and can do things a lot better now.

MR. SIEBERT: Well, you get so

many more returns, it's much harder to explain to a claimant the second time around.

MR. HINNEFELD: That's what triggers --

MR. SIEBERT: Generally speaking, we=ll, if we see an error such as this, or such as this magnitude, we go back. The peer review will kick it back and say no.

MR. HINNEFELD: And I would think we would --

MR. SIEBERT: And we would follow it.

MR. HINNEFELD: And I think we would --

DR. MAURO: So it's a matter of good practice.

MR. SIEBERT: Yes.

DR. MAURO: Because of this return process.

MR. SIEBERT: Yes, the return issues.

DR. MAURO: Yes, right.

MR. HINNEFELD: So what's the issue?

MR. FARVER: Oh, well, I was just thinking that even if you would look at it and say well, yes, if it's not what we would do now, but it doesn't matter in this case, an overestimate.

MR. HINNEFELD: Is the reviewer at least right?

CHAIR GRIFFON: That's what I was going to ask. Is there a document trail in there?

MR. FARVER: I know sometimes I see comment forms.

MR. HINNEFELD: It can be. You know, recall our review process has an automated spread -- or automated checklist that pops up 25 percent of the time. And that pulls up the dose reconstruction. You're required to fill out a checklist.

And in a situation like that, we would expect them to document this had

happened, you know, this occurred and it went on. We sent it on anyway. I would expect that to happen. I don't personally go back and review those and see.

MR. FARVER: Now, sometimes there is a comment form included in the records.

MR. HINNEFELD: Well --

MR. FARVER: And what comment form is that?

MR. HINNEFELD: -- the comment form, if it is a comment form where there is a comment, a resolution, you get what I'm saying?

MR. FARVER: Yes.

MR. HINNEFELD: That means that case was reviewed by us and we didn't approve it. We commented on it.

MR. SIEBERT: Reviewed by?

MR. HINNEFELD: And it went back to the contractor to fix the comments we made. That's their resolution, otherwise, we wouldn't sign it.

MR. SIEBERT: Or DOL returns the case.

MR. HINNEFELD: Well, sometimes.

MR. SIEBERT: For some reason.

MR. HINNEFELD: Yes. If DOL returns a case, that shows up back on our side and so the mechanism we have adopted to send it back to the contractor is to complete a comment sheet. And the comment in this case would be DOL returned the case because of an additional cancer.

MR. FARVER: Right, yes.

MR. HINNEFELD: And that's the only comment.

MR. FARVER: Now, for this finding, would that possibly show up in the NIOSH comment sheet?

MR. HINNEFELD: It would not on the one you described.

MR. FARVER: Okay.

MR. HINNEFELD: If there is a sheet, a different sheet, and I don't know

where these are recorded.

CHAIR GRIFFON: Yes, I don't know.

MR. HINNEFELD: A different sheet that pops up. It's in our -- it=s in the procedure for dose reconstruction reviews, it=s an attachment. It pops up on 25 percent of the reviews and the dose reconstructor has to complete that and it's a review checklist. You know, was this done okay? Was this done okay? Was this done okay?

MR. SIEBERT: And that's within the NIOSH?

MR. HINNEFELD: That's within our system. That's our system. So to be honest with you, I don't see a compilation of those, and so I don't know what they say.

MR. SIEBERT: Okay.

MR. HINNEFELD: I don't know. I would think something like this would be captured, but I don't swear to it.

DR. MAURO: I could say that when I see a gross overestimate, I would not --

quite frankly, I just presumed that this was a shortcut that we decided to do, because we=re denying anyway. And I don't think they'll find it.

MR. HINNEFELD: By and large, we-- you know, that's the way we have acted a long time. Although as Scott mentioned, since so many cases get returned for one reason or another, if you've got a big overestimate in a case and now you have got, you know --

DR. MAURO: A little overestimate.

MR. HINNEFELD: -- and now that goes away, for instance, and for whatever -- for instance, a second cancer, you have a big overestimate. And you have got a POC of like 40 percent or 42 percent and the person, you know, brings in -- you know, there's a couple more cancer diagnoses, you know, all of a sudden --

DR. MAURO: Then you deal with it.

MR. HINNEFELD: At the same time, a huge overestimate=s going to have over 50

percent if a person overestimates.

DR. MAURO: I mean, the reality is when you do the efficiency process, you leave out -- I'll leave out the environmental dose. I'll leave out the neutron, possible, neutron contribution. I see it all the time.

MR. HINNEFELD: Yes, yes.

DR. MAURO: All right time. And I look at it oh, no problem. Why should you waste your time doing that calculation when, you know, it's not really changing anything.

CHAIR GRIFFON: Right.

DR. MAURO: So I guess I don't -- but I can see the dilemma of you have to revisit it and then sharpen your pencil. Right now, is there --

MR. HINNEFELD: It's not only dilemma on the work, it's a dilemma with the communication to the public.

DR. MAURO: Oh, that's what I mean. The dilemma --

MR. HINNEFELD: Right, right, yes.

DR. MAURO: -- could be, you know, troublesome. I know that we had -- there was a Board meeting where they said don't do that any more.

MR. HINNEFELD: Yes, yes.

CHAIR GRIFFON: In one of these cases we are looking at, they are written up as best estimates. They have been. Now, they are getting much better about saying it is a best estimate of the external and an overestimate or a partial on the internal.

MR. SIEBERT: Well, that's a change we made.

CHAIR GRIFFON: Yes, and that helps out a lot.

MR. FARVER: That helps a lot, yes.

MR. SIEBERT: Because then you can say oh, yes, well, they left this --

MR. FARVER: Right.

MR. SIEBERT: -- out, because it was a partial.

DR. MAURO: I mean, that's always clear when it's a partial. You can say you left it out.

CHAIR GRIFFON: All right. Let's go back to the -- I'm on 114. It's also a Y-12.

MR. FARVER: Which one, No. 2, 114.2?

CHAIR GRIFFON: Yes. I have 114.1. I have NIOSH agreement on that.

MEMBER MUNN: No further action.

CHAIR GRIFFON: Right. 114.

MR. FARVER: 114.2. There was another OTIB.

CHAIR GRIFFON: Yes. Where does that stand? I have SC&A will review -- on August 20th, yes.

MR. FARVER: Yes. Oh, yes, this is related back to OTIB-17. And I went back and looked at it and sent the email saying, yes.

CHAIR GRIFFON: So you're okay.

Okay. Your finding says 114.1, but you meant .2, I think, in your email.

MR. FARVER: Yes.

CHAIR GRIFFON: That's fine. So you have looked at OTIB-17 as it pertains to this case and it's okay?

MR. FARVER: Correct.

CHAIR GRIFFON: Okay. What is OTIB-17?

MR. FARVER: Shallow --

CHAIR GRIFFON: Shallow dose, okay. So I guess we have got closure on that one. SC&A agrees, then closed, no further action. Right.

MR. FARVER: And what came out of this? What came out of that finding was we -- it would be nice to have a list of all the neutron areas in one spot, because there were some conflicting tables in different documents.

CHAIR GRIFFON: Now, this is the tricky one here for me. Yes, I have NIOSH

will revise the site profile and reevaluate case if necessary. Now, this is one of those that, you know, are we holding up the whole case for --

MR. FARVER: This is fine. This is a significant one, because --

CHAIR GRIFFON: Well, here is --

MR. FARVER: Yes.

CHAIR GRIFFON: Yes.

MR. FARVER: Here is what the -- how that would work. Is that there are two documents, as I've pointed out, that give different descriptions of neutron areas.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Something called Report 33 or something and the other is the site profile.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And you know, Mark, that there are some site profile issues hanging around out there from the SET review.

CHAIR GRIFFON: Right, right,

okay.

MR. HINNEFELD: So that is on -- that work is underway. And it's in our project planning schedule. I'm not sure what it is scheduled for, but it is in our project plan and this specific item to resolve this difference between the site profile and the Report 33, it's one of the action items on the list.

So if now when that resolution is made, then if it turns out that we will have to identify cases that were done in the report -- if the Report 33 was wrong and we're going to stay with what the site profile said, that means we will have to identify cases done with Report 33 and reconsider those.

If Report 33 is right and the site profile is wrong, then we have to find the cases on the site profile and reconsider those. Now, if there -- if we decide that neither one is exactly right on the third number, that makes it actually kind of easier

to find the case.

So you know, that's going to be the kind of the outcome, but, you know, so however you want it.

MEMBER MUNN: Our time right now, site profile tracking on the issue is continuing, right?

CHAIR GRIFFON: Right, right.

MEMBER MUNN: Okay.

CHAIR GRIFFON: Although that Y-12 -- I don't even know if it is listed as a work group any more, but it should be, because it's low --

MR. HINNEFELD: On my books it is actually --

CHAIR GRIFFON: -- site profile issues.

MR. HINNEFELD: There is.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And we know there is work to do on it. As a matter of fact, the work is under way.

CHAIR GRIFFON: Okay. 114.4 then.

DR. MAURO: We agree, closed.

CHAIR GRIFFON: SC&A concurs, that's what I've got. All right. And 114.5, NIOSH agrees should have used personal data, SC&A agrees with NIOSH that they were, I can't read my own writing --

MR. FARVER: That had to do with using coworker data.

CHAIR GRIFFON: Yes.

MR. FARVER: Instead of the actual bioassay data. And the last part of that was follow-up to an incident that was identified in the CATI report.

MEMBER MUNN: My last note says SC&A agrees with the response of 8/20/08, we=re closed.

MR. FARVER: Yes, that's the bottom line.

MEMBER MUNN: Yes.

MR. FARVER: After going back and forth a couple of times.

CHAIR GRIFFON: Where is your note on -- what --

MEMBER MUNN: My note says SC&A agrees with the response of 8/20/08, we=re closed.

CHAIR GRIFFON: I think you are right. I have a note of mine, something here says that SC&A agrees with NIOSH that they were comparing excursion data with intake data. I think that was a mistake initially that you were making in your assessment.

MR. FARVER: Yes.

CHAIR GRIFFON: And once you resolved that, you were okay with it, right?

MR. FARVER: Yes. The gist of it was there was bioassay data for the individual and they were using coworker data.

CHAIR GRIFFON: Okay.

MR. FARVER: And --

CHAIR GRIFFON: All right. But SC&A is in agreement with that?

MR. FARVER: Correct.

CHAIR GRIFFON: And that's closed, okay. In the middle of this thing, although I just said it's closed, in the middle of this response, I underlined this note that says the results range from -5 to 76. Clearly, this is not consistent with the coworker data.

MR. FARVER: And that's where I was --

CHAIR GRIFFON: You were comparing the wrong --

MR. FARVER: -- misinterpreting the coworker data.

CHAIR GRIFFON: Okay. That's fine. Okay. Okay. I just want to tie those to the others. If someone is reviewing this and sees that inconsistency, I think it would be -- well, it was just confusing to me. Okay. 115.1.

MEMBER MUNN: I have presentation of the Board complete, was closed.

MR. HINNEFELD: Yes, we agreed with the finding.

CHAIR GRIFFON: NIOSH provided QC presentation, yes.

MEMBER MUNN: Um-hum.

CHAIR GRIFFON: Yes, and this gets back to the QA question, but we are getting updates on that, so I think the finding for that case is closed, right?

MEMBER MUNN: Yes.

MR. HINNEFELD: Right.

CHAIR GRIFFON: Okay. 116.1, this is an X-10 case. I have NIOSH agrees, TIB-8 revised, PROC review. And that's for 1 and 2.

MR. HINNEFELD: 1 and 2, yes.

CHAIR GRIFFON: Yes, that's standard. 116.3, NIOSH agrees, policy was revised, that's for -- that=s the standard one we have talked about. 116.4, same thing, agrees, policy was revised, that=s the selecting of the organ, right?

MR. HINNEFELD: Yes, in this case, they selected the organ.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Organ -- colon was the organ.

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- earliest tool, that was the only option.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: And then at other times it has when other options became available it was sometimes called on and we said, hey, use the right one.

CHAIR GRIFFON: Yes, okay. So they are all closed.

MR. SIEBERT: Yes.

CHAIR GRIFFON: That entire case is closed, that's good. 117.1, this is a TIB-18, TIB-33 PROC review is what I have. Was this a compensable one, Scott?

MR. SIEBERT: Yes, yes.

CHAIR GRIFFON: So this is a question of using it for compensable, so it's basically closed, but it is -- is that right?

MR. FARVER: Yes, because this was

during that time period when they were asked to expedite cases.

CHAIR GRIFFON: Yes.

MR. FARVER: So they used what they had.

CHAIR GRIFFON: So it's closed. No action on that case. TIB-18 and 33 are being reviewed with other ones. Okay. 118.1.

MR. FARVER: This was left with the action on our part to go back and review a few files, I believe. But anyway we did that and we agree with their response.

CHAIR GRIFFON: Let's go to their email. Can you just go over what you have in your email?

MR. FARVER: If I can find it.

CHAIR GRIFFON: Buy me some time to catch up. Okay.

MR. FARVER: Having to do with the -- looking at dosimetry records, handwritten records, I believe, and misinterpreting what we thought was 15,000, which was later shown

to be a 13 and then -- a reason code of 13 and a beta dose of 0000, which the way it was handwritten and not very legible, looked like 15,000.

CHAIR GRIFFON: Oh, okay. So you -- but you are comfortable with NIOSH's interpretation of that?

MR. FARVER: Yes.

CHAIR GRIFFON: Right? Okay.

MR. FARVER: And then there was another dose.

CHAIR GRIFFON: So it wasn't really a --

MR. FARVER: No.

CHAIR GRIFFON: A recorded at 15,000 millirems?

MR. FARVER: No, but it was very difficult to --

CHAIR GRIFFON: Code 13 and zeros and it looked, yes, very similar.

MR. FARVER: And we want to do that on a lot of these older records that are

handwritten and, you know, microfiched.

CHAIR GRIFFON: Right.

MR. FARVER: And they are just not very clear.

CHAIR GRIFFON: And then this last technical issue you are raising, this is a technical issue that may need to be addressed by a different work group. What's -- it's just a question of the film -- the linearity?

MR. FARVER: Yes.

CHAIR GRIFFON: But I mean, is that a specific type of film that was used at INEL or is that used at many sites? I'm not sure.

MR. HINNEFELD: 508, I think. 558, I think, is pretty standard.

CHAIR GRIFFON: 558 is pretty standard, wasn't that? Yes. This hasn't been raised before though really, that I remember.

MR. FARVER: I don't believe it has. It has to do with this film and that dose range and what's the linearity?

CHAIR GRIFFON: Oh, in higher dose ranges.

MR. FARVER: Correct.

CHAIR GRIFFON: Yes.

MR. FARVER: Normally, we don't talk about just having --

CHAIR GRIFFON: Right, right, right, yes.

MR. FARVER: -- film badge.

CHAIR GRIFFON: So it seems like you have closed part of it, but you are keeping that aspect?

MR. FARVER: Well, I guess we are --

CHAIR GRIFFON: I guess you still are --

MR. FARVER: -- bringing that issue to your attention.

CHAIR GRIFFON: Yes.

MR. FARVER: I could say most of the time, they are not going to see the 7,000 millirem --

CHAIR GRIFFON: Right, right.

MR. FARVER: -- on the film badge.

CHAIR GRIFFON: Right.

MR. FARVER: So it may not be an issue most of the time.

CHAIR GRIFFON: Yes. But when you see it, it could be a pretty significant aspect of a DR, I guess, you know, here. Getting those higher numbers. I don't know if -- have you guys looked at this NIOSH? Looked at this?

MR. HINNEFELD: I don't think we have actually looked at that one particularly, quite honestly. So I guess we can.

CHAIR GRIFFON: Yes, I think we should at least pursue that question and if there is a simple explanation.

MR. FARVER: And for this case it might not make any difference.

CHAIR GRIFFON: Right.

MR. FARVER: Because it looks like they are still maximizing assumptions and

there still was a, you know, less than 50 percent.

CHAIR GRIFFON: Right, right, right.

MR. HINNEFELD: If, in fact, you know, I mean, you're talking about another work group, I mean, if you were going to transfer it, it sounds like it's Idaho Falls, right?

CHAIR GRIFFON: I&E, yes, but that's why I asked -- generic film, so it might cut across --

MR. HINNEFELD: It might be more generic, I guess.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: It says it was a combination of 508 and a high of 1290. And I know very little about film.

CHAIR GRIFFON: Yes, me, too.

MR. HINNEFELD: So I'm not much -- I can=t help out so much here. We do have people who do know a fair amount about it, I

think.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So we can maybe chase this down a little bit. And it sounds like, then, this would be -- it would have to be a general warning or admonition about using the data from, I don't know, Drawing L and what kind of ranges is it good for.

CHAIR GRIFFON: Right.

MR. HINNEFELD: I mean, based on the dosimeter they had. Is there a limitation on the range when you can feel like the dosimetry was done --

MR. FARVER: If you go back to our draft report --

CHAIR GRIFFON: Um-hum.

MR. FARVER: -- there is a figure one and then it shows the dose response.

CHAIR GRIFFON: Okay.

MR. FARVER: For those types of film pulled from an NRC document.

MEMBER MUNN: Oh, boy.

CHAIR GRIFFON: I think we need to give this -- what item? Doug, can I ask you which item, which finding do you think this best fits under? Because you said 118.1, but I guess that would be best under 118.1, huh?

MR. FARVER: Yes.

CHAIR GRIFFON: And then what happens to 118.2 through 7? Because I mean, I think we could say, you know, under 118.1 it looks like you resolved the question about the interpretation of the recorded dose, but you have a remaining question about the linearity of the film and higher dose records.

MR. FARVER: Yes. I will keep that one open.

CHAIR GRIFFON: Right, okay. Let me get that down.

MEMBER MUNN: Would someone like to articulate for me what notation should go in here, because I don't --

CHAIR GRIFFON: Well, that's what I'm saying. It's kind of like a split

finding, Wanda, in my opinion. SC&A accepts the interpretation of the dose measurements was correct. However, they have remaining concerns about the linearity of the film dosimeters.

MR. FARVER: In that range.

CHAIR GRIFFON: In that higher end dose range, right.

DR. MAURO: All right. So I'm looking at this graph of this -- go back to Health Physics 101. So what we have is it looks like a fairly linear response with the 508 film badge over a range of doses from 1 to what 5, 3, 1, 2, 3, 4, 5 rem and then after that the linearity starts to change so that you don't -- if you are in that region, if you are in the -- if you get -- as the doses go higher, you are in a non-linear range, so how do you -- is that the concern?

MR. FARVER: I believe so.

DR. MAURO: Yes no --

MR. HINNEFELD: I mean, also,

well, if it is -- it would speak to the calibration.

DR. MAURO: Even over, receiving all the distant -- according to this here, the optical density starts to flatten out. If the doses go up, the optical density don't -- let me see. Yes, as the doses go higher, the optical density does not go up in proportion. So that=s going to underestimate.

MR. HINNEFELD: Okay and essentially, it's a question for the calibration procedures.

DR. MAURO: And how do they deal with that?

MR. HINNEFELD: Did their calibration curve include that.

CHAIR GRIFFON: Yes.

DR. MAURO: Did they actually have like on his graph have like a section where 508 works? The 508 component of the badge and then they have another section with a different component -- yes, I can see why this

would be an issue, yes, I think we should B- it=s worth B- yes.

MR. HINNEFELD: But, I mean, we can check into it and see what, you know, see what they did.

MEMBER MUNN: This high reading was a result from an incident back in '58, or something?

MR. FARVER: Yes.

MEMBER MUNN: Okay.

DR. MAURO: Yes.

MEMBER MUNN: So --

MR. HINNEFELD: In March? I thought I saw one --

MEMBER MUNN: No.

MR. HINNEFELD: Because I saw one was 1958. But that one was from January.

CHAIR GRIFFON: It was related to SL-1.

MR. HINNEFELD: Pardon?

DR. MAURO: Yes, this is March 25, '58.

CHAIR GRIFFON: Okay. So 118.1 remains open on that regard, on that part. Solve the record interpretation question, but remaining issue on the linearity of the film badge at that higher end of exposure. Is that fair?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: And so the action is?

CHAIR GRIFFON: That is it open. NIOSH is going to look into that.

MR. HINNEFELD: We are going to provide additional response regarding the linear question.

CHAIR GRIFFON: And I guess you are saying it's spelled out a little more in the detailed write-up of the finding, right? Other things are included.

MR. HINNEFELD: I'm sure it is. Yes, I'm sure it is.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: The detailed write-ups are included.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: In general order.

CHAIR GRIFFON: Yes, okay. Sometimes we work from the matrix and lose sight of it then.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay.

MR. FARVER: That's why I always have to go back.

CHAIR GRIFFON: I know, I know.

MEMBER MUNN: That's in the original documentation.

CHAIR GRIFFON: Yes. Now, what is this -- 118.2? Yes, that's .1. Now, I'm moving on to 118.2.

MR. FARVER: .2. Oh, work at ANL West.

CHAIR GRIFFON: And there is no records, right?

MR. FARVER: No records.

CHAIR GRIFFON: So that question, I have it looped for all these, ANL West missing records.

MR. FARVER: Correct.

CHAIR GRIFFON: For 118.2 through 7. So what are we -- what's the status on that, then?

MR. HINNEFELD: I believe we are checking it.

CHAIR GRIFFON: Okay. I didn't know. I didn't have an action written. Yes, we are checking with our point of contact. And in fact, Brad commented that there was a period of time when people were saying their records went to Argonne in Chicago. My understanding at the time we had that discussion was that INEL has -- had obtained all those, and has the complete records, and were providing the complete records for Argonne West. However, that's what we are chasing down now.

MR. SIEBERT: The other question

was whether it was going to be -- whether they were going to be redacting that information when they send it to us or not.

MR. HINNEFELD: That's right. Yes, we want to make sure we had the complete record of that work at Argonne.

MEMBER MUNN: I don=t know, if it says we may need a comment on the site profile about ANL West as well as INEL.

MR. FARVER: Yes, I remember that conversation we had about where the actual doses are kept.

MEMBER MUNN: NIOSH=s action.

CHAIR GRIFFON: So for all those it's NIOSH action, right.

MR. FARVER: Yes, they are all related.

CHAIR GRIFFON: We can't really go any further.

MR. FARVER: ANLW.

CHAIR GRIFFON: Then are we onto 119, based on that, because they all -- I

guess we might have to revisit the individual responses for those items, but until we see if there is any ANL West records, I don't know if we would be doing these twice, you know what I mean?

MEMBER MUNN: Yes.

CHAIR GRIFFON: Or I don't know.

MR. FARVER: Well, we can go and knock out like 118.6, and go on with some of the 118s from the internal side.

CHAIR GRIFFON: Yes, because that's for 58.

MR. FARVER: Right.

CHAIR GRIFFON: Would he have been working at both places in that year, or potentially?

MR. FARVER: No, that was an incident, and it was -- had to do with how they calculated dose from the incident, I believe.

CHAIR GRIFFON: Is that for the SL-1 incident?

MR. HINNEFELD: Which one are we talking about?

MR. FARVER: 118.6.

CHAIR GRIFFON: 118.6.

MR. FARVER: This is another one of those where, if you go back and look at our original report, there=s more information. And this was the one, Stu, that you sent us a lot of files to look at recently.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: This is the one where the -- Stu was messing with this in the matrix, too. They are shifted, aren't they, the responses?

MR. FARVER: They are, so there is some --

CHAIR GRIFFON: I have a note here. It's 118.6(g)(3), and it=s really the response to 118.5(f)(2). So they kind of shifted down, I think, or something.

MR. FARVER: Okay.

CHAIR GRIFFON: Anyway --

MR. FARVER: Anyway, we looked at these on the NIOSH responses to this finding, and we understand what they did and why they did it.

MEMBER MUNN: So you feel like we can close this?

MR. FARVER: We can close, yes. Whatever the real number of that finding is.

MEMBER MUNN: It's 1958 internal dose.

MR. FARVER: It's that one, yes.

MEMBER MUNN: That one.

MR. FARVER: Okay.

MS. BEHLING: Excuse me, this is Kathy. On that particular finding, I believe also on the internal, in 1958, there were -- there was a secondary record that had a different urinalysis number on it, then a primary record. And once that was pointed out, I think when we initially calculated our internal dose, we used the secondary record, not recognizing that it was different from the

primary. And so that was part of this particular finding. And now that that was resolved, we agree with NIOSH's evaluation.

CHAIR GRIFFON: Where is this response for 118.6? Stu, do you know how it starts? Because, like I said, these have been shifted around, and I'm getting confused which ones are the response to which. Maybe it actually is --

MR. HINNEFELD: I think what happened was --

CHAIR GRIFFON: Because it starts off saying NIOSH is requesting clarification on this, because it appears to be imply that NIOSH is required to use the highest dose calculated from an individual sample.

MR. HINNEFELD: No, I think it's 118.

CHAIR GRIFFON: Because this goes on to say, I think what Kathy was saying, the 1453, the 1.453 rem calculated by the auditor was based on an incorrect sample collection

date.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: I don't know.

MR. HINNEFELD: The response, as near as I can reconstruct, the response that I put in 118.6 actually pertains to 118.5.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Because if you look at the --

CHAIR GRIFFON: I have that.

MR. HINNEFELD: -- response to 118.5, it's not even --

CHAIR GRIFFON: Now, where is the real response to 118.6? It's just shifted down one? Do you think?

MR. HINNEFELD: I believe that=s what happened.

MR. FARVER: I believe so.

CHAIR GRIFFON: I think so. Okay.

MR. FARVER: Because in our draft case, I believe, we had a finding about ambien dose.

CHAIR GRIFFON: Yes.

MR. FARVER: That we didn't --

CHAIR GRIFFON: It wasn't in the file.

MR. FARVER: It wasn't in the file, correct.

CHAIR GRIFFON: And so, see if you read the finding in 118.7, it's just sort of a summary of the information from the earlier findings. So it's sort of a summary kind of finding, but the response column is a very specific response that relates to the previous findings.

So I think .6 and .7 are -- the responses are -- in .6 and .7 are actually numbered one too high. They should be --

CHAIR GRIFFON: Shifted down.

MR. FARVER: -- .5 and .6.

CHAIR GRIFFON: Okay.

MEMBER MUNN: Now, did we receive your comments in the separate --

CHAIR GRIFFON: Yes.

MEMBER MUNN: I seem not to have transferred it appropriately to the matrix I=m looking at.

MR. HINNEFELD: Well, I'm trying to figure out what I did after August 20th. I don't know the date when I transmitted --

MEMBER MUNN: That's okay.

MR. HINNEFELD: -- the responses, but there are -- we=re not on 110, we=re on 118.

MEMBER MUNN: 118. Let me see if I can find it.

MR. HINNEFELD: Okay.

MEMBER MUNN: But was it fairly recent?

MR. HINNEFELD: I don't believe it would have been very recent.

MEMBER MUNN: But since, following our last meeting, which would be some time between August --

MR. HINNEFELD: Yes, I believe so.

MEMBER MUNN: Okay. I'll take a

look.

CHAIR GRIFFON: So, Doug, you're looking at this whole response, and this is the one, you=ve run this. I think in the middle of it, NIOSH was asking to see your number runs to see how you were getting your numbers, and I think you shared files, right, or maybe not.

MR. FARVER: I don't remember, Mark.

CHAIR GRIFFON: Do you remember if it was this one that we did?

MR. HINNEFELD: I know we did that on one.

MR. FARVER: Yes.

MR. HINNEFELD: 118.6 and 118.7.

CHAIR GRIFFON: And this is like a seven page response here.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: So I think, you know, I don't want to just close this out until we=re sure of what we=re looking at.

MR. FARVER: Is that something I wrote?

CHAIR GRIFFON: No, this is --

MR. HINNEFELD: We wrote a long response.

MR. FARVER: Okay.

CHAIR GRIFFON: Can I ask, you know, just for the sake of this meeting, can I ask that Stu and Doug or whoever get together on this off-line, and you know, we can figure out where we are at on this, because it's a long response and I think --

MR. FARVER: The files were exchanged.

CHAIR GRIFFON: I can't find them right now.

MR. FARVER: No.

CHAIR GRIFFON: I don't want to jump the gun, but it looks like you are in agreement, but let's just make sure.

MR. FARVER: Yeah, yeah.

MR. FARVER: Stu sent files.

CHAIR GRIFFON: Right.

MR. FARVER: We reviewed those and we have all been -- I know it has --

CHAIR GRIFFON: Yes. But let's just make sure, double check that one. And the other ones were waiting on ANL, I think.

MR. FARVER: Yes.

CHAIR GRIFFON: So we=ll move on to 119, if that's okay. And before the next meeting in January, it looks like I'll refresh the matrix, because this thing has shifted, too.

MR. FARVER: Yes.

CHAIR GRIFFON: So I've got to get that all straightened out, because the responses are shifted down one, and it's very confusing to look at.

MEMBER MUNN: Yes, we only need to be --

CHAIR GRIFFON: There's no resolutions in it at all really in the electronic copy.

MS. BEHLING: I believe that=s due out November 13th. I think I just found it, November 13th.

MR. HINNEFELD: November 13th is when I sent them?

MS. BEHLING: Yes, but I don't think you sent it to everyone. I'm not sure.

MR. HINNEFELD: Okay.

MS. BEHLING: I had it from Doug.

MR. HINNEFELD: Okay.

MS. BEHLING: So you may have only sent it to Doug.

CHAIR GRIFFON: We=ll follow-up on that.

MR. HINNEFELD: I'll follow-up on that here at lunch time.

CHAIR GRIFFON: Let's try to get through these, if you don't mind, just the next couple. We've got two more cases, right? Hopefully, we can get rid of these before lunch. 119.1 is a Mound case. It was a compensable underestimate. The first one I

have agreement, no effect on case. Do you agree with that?

MEMBER MUNN: Yes.

CHAIR GRIFFON: 119.1?

MR. FARVER: Yes.

CHAIR GRIFFON: 119.2 I have compensable claim, no action on case.

MR. FARVER: 119.2?

CHAIR GRIFFON: Yes.

MR. FARVER: Yes.

MEMBER MUNN: NIOSH will present on QA program.

CHAIR GRIFFON: That's right, that's right.

MR. FARVER: Another QA issue.

CHAIR GRIFFON: NIOSH presented on QA program.

MR. FARVER: With 103 millirem instead of 1830 millirem.

CHAIR GRIFFON: Right, right, right. 119.3, I have, again -- I just have no further action. I'm not sure why.

MR. SIEBERT: It's the same as 1.1.

CHAIR GRIFFON: Okay.

MR. SIEBERT: We agreed.

CHAIR GRIFFON: Okay.

MEMBER MUNN: And SC&A reviewed the agreement.

CHAIR GRIFFON: Okay. Yes, it's compensable, no further action, right. Okay. Then 120.1 is a best estimate Mound case. I have, NIOSH agrees, will review boiler plate language. This must be on the --

MR. SIEBERT: Yes, this was in the dose reconstruction report.

CHAIR GRIFFON: Yes, in the report.

MR. SIEBERT: Midpoint of the distribution, BCS was reported as opposed to it was actually the full range was used in the Monte Carlo calculation.

CHAIR GRIFFON: Okay. And you=re not sure how to convey that in language that

people can understand, right?

MR. SIEBERT: Yes.

CHAIR GRIFFON: Yes.

MR. SIEBERT: I'm not even sure I understand what I just said.

MEMBER MUNN: I agree.

CHAIR GRIFFON: That came out pretty good, actually. But it's closed for this case. I think we can all agree that it=s closed for this case.

MR. SIEBERT: Yes.

CHAIR GRIFFON: 120.2. Okay. This -- I have this as a site profile issue being referred to the Site Profile Group to review the adequacy of the annual dose data. Is that what you have? So this is a transfer to site profile review.

MR. FARVER: Right.

CHAIR GRIFFON: I have to make them aware of that. Okay. 120.3 now, this is again the language, reviewed language. 120.4, see 120.2 --

MR. FARVER: The uncertainty.

CHAIR GRIFFON: -- claim. So 120.4 is also closed. Everybody agree with that?

MR. FARVER: Yes.

CHAIR GRIFFON: 120.5, I have NIOSH will provide IMBA run, and I think you might have done that already. Let me check. Maybe not. Well that's what I have. NIOSH provided IMBA run for this case and La Bone.

MEMBER MUNN: And my note says provided in September '07. But then they reviewed it.

MR. FARVER: Yes, I remember looking at it.

CHAIR GRIFFON: Okay. So you do have -- wait a second, 120.5 I see on the next page. Actually, I'm sorry, I have NIOSH agrees, and they reassessed the internal dose. Is that right?

MR. HINNEFELD: That was a fairly long response it seems.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Okay. NIOSH will review.

MR. HINNEFELD: They did.

MEMBER MUNN: So they did it, SC&A looked at it, and said it was okay.

MR. FARVER: All right.

MEMBER MUNN: What else do we need?

MR. HINNEFELD: It sounds like just what happened, the dose reconstructor did make a mistake.

MR. HINNEFELD: Right, that's what I'm saying, yes.

CHAIR GRIFFON: And I think the way -- why it took so long is that the dose reconstruction review proposed a particular what should be done instead, and our response was, well, we don't really think that should be done. We think this other thing should be done. And that was the nature of the discussion, and I think that's what they

agreed to.

MR. FARVER: Okay.

MEMBER MUNN: It's all good.

CHAIR GRIFFON: NIOSH agrees, reassessing term dose and SC&A was in agreement with the change. Right?

MR. HINNEFELD: I believe that reflects that.

MR. FARVER: Yes.

CHAIR GRIFFON: Okay. On 120.6, is this the last one? NIOSH agrees, no further action is what I have.

MR. FARVER: Okay.

MEMBER MUNN: On (b)(2)?

CHAIR GRIFFON: Yes.

MEMBER MUNN: NIOSH to provide input on the case. It=s been done, and it's closed, right?

CHAIR GRIFFON: I didn't have anything.

MR. HINNEFELD: If that was supposed to happen, it has happened, and it's

closed, I believe.

CHAIR GRIFFON: I have nothing about an IMBA run there, but I have that it=s closed, which NIOSH agrees, and no further action.

MR. FARVER: I think that happened a long time ago.

CHAIR GRIFFON: Yes. I believe that was quite a long time ago. Okay, and that does it. Yes, we did it. Just when I thought it was going to take a half hour. All right. Just to take a break from the matrices, I think after lunch maybe we can try the 100 case summary report first.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And then plunge into the seventh set. I sent out a new version.

MR. HINNEFELD: You sent it just very recently.

CHAIR GRIFFON: Very recently, yes.

MR. HINNEFELD: Yes, I did read it. I mean, I saw it. I don't know if I read it.

CHAIR GRIFFON: Ted, can we print out any copies of that, if possible, for use in here or not?

MR. KATZ: I think we could get something printed.

CHAIR GRIFFON: Really short, really short.

MR. KATZ: Give me something up here.

MR. HINNEFELD: Is it easier to resend it to everybody here?

CHAIR GRIFFON: Yes, I guess.

MR. HINNEFELD: I can resend to everybody here.

CHAIR GRIFFON: You got it?

MR. HINNEFELD: I believe I do.

CHAIR GRIFFON: Just resend it.

MR. HINNEFELD: I believe I do.

MEMBER MUNN: I have it.

CHAIR GRIFFON: Do you have it, Wanda?

MEMBER MUNN: Well, I have a hard copy and, therefore, I must have it. It's just a matter of finding mine to mail.

CHAIR GRIFFON: We can do that during lunch, and Kathy I know you have a copy of that letter, unless you went to lunch already.

MS. BEHLING: No, I'm here, and I do have a copy of it.

CHAIR GRIFFON: Okay.

MS. BEHLING: Should I forward to everyone?

CHAIR GRIFFON: I think we are going to break --

MR. HINNEFELD: No, I've got it. I've got it on my screen right now.

MS. BEHLING: Good. Somebody else can forward it. Good.

CHAIR GRIFFON: Let's break for lunch then for an hour, and we'll start off

with that item.

MR. KATZ: So a little bit past 1:00, we=ll start-up again.

CHAIR GRIFFON: All right. Thanks.

MR. FARVER: Thanks, Kathy.

(Whereupon, the above-entitled matter went off the record at 12:02 p.m. and resumed at 1:06 p.m.)

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

1:06 p.m.

CHAIR GRIFFON: So we're going to start on the next item. Everybody should have the summary report of the first 100 cases. The file name is First 100 Cases Summary Report, Rev 1. If you're looking for it. I think it's dated 12 -- it was just sent out recently. I left it in track changes, because I didn't change a lot, but I did -- well, and I still have to square away some of these numbers.

I asked Kathy, her mind is better than mine, I think we both realized that we're -- I'm going to have to go back and count through the first five matrices to resolve the medium/high/low. Kathy did, since the last meeting, send me some information on those unresolved items. So I have that.

And then I just have to go through and do another hard count, because when I was just trying to add those in, the numbers

weren't squaring up for me, but that's, you know, just a few numbers that are going to change slightly.

MS. BEHLING: And, Mark, excuse me. This is Kathy Behling, but I can certainly do that for you. I didn't offer initially, because I wasn't sure if I had the very last version of all of the older matrices, but I think I do. So if you want me to tally those up, I can do that.

CHAIR GRIFFON: Okay. That would be great, yes, if you can do that.

MS. BEHLING: Okay.

CHAIR GRIFFON: All right. And but again, that's, you know, just details in the body of the letter of the summary report. But I did try to -- at least I know there were some concerns about some of the tone in it. I'm not sure there is any real objection to any of the content necessarily, but some of the way things were laid out. So I did look at some areas for modifying some of the ways I

said things.

I think in a couple of instances I tried to drop out some of the howevers. I would write something and then say however, you know, and I think that gave it a certain tone. But other than that, it's not drastically changed from the last time.

I didn't receive any specific comments from other Subcommittee Members, so I didn't really have anything to go on from that standpoint, other than what was in the -- what was said in the meeting.

But this is the time now if you want to discuss, comment.

MEMBER MUNN: Yes, I had one or two small nits. Your note on Comment 4 with respect to procedural issues. I didn't look at the comment until after I had already read the paragraphs and my first reaction having read the paragraph is why are we still carrying this? This is now a moot point.

CHAIR GRIFFON: Number 4?

MEMBER MUNN: Procedural issues, number 3.

MR. FARVER: Three.

CHAIR GRIFFON: Number 3.

MEMBER MUNN: Does this one stay in some way in the report? In my view, no. I think it is --

CHAIR GRIFFON: Well, but --

MEMBER MUNN: It was appropriate to the original one.

CHAIR GRIFFON: Yes.

MEMBER MUNN: But not when we --

CHAIR GRIFFON: You don't see it as being a broad enough item to remain?

MEMBER MUNN: No.

CHAIR GRIFFON: I mean, we're doing this sort of in retrospect. You've got to think, you know, this is the first 100 cases, not where we are at today necessarily.

MEMBER MUNN: But there is -- if we are going to just repeat everything that they have heard before -- now this has been

said and it was applicable to earlier times. It isn't particularly pertinent now.

CHAIR GRIFFON: Right, right, right.

MEMBER MUNN: With an eye to as much brevity as possible. And I personally would remove that.

CHAIR GRIFFON: Okay, okay.

MEMBER MUNN: There was --

CHAIR GRIFFON: I'm going to put that I'll agree to at least compare it to the last report and either drop it or modify it, because I think you are right. It just focuses on TIB-8 and 10 and that there is a broader question about procedural issues, then maybe that, you know, for some issues maybe it remains, but if there is nothing else to be said, then I'll agree to drop this, yes. And I had that comment in there. Yes, okay.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I was just going to put in my comment now. Okay.

MEMBER MUNN: On the third page the second paragraph there, I think we need a comma, this is a big deal. The outcome of nearly all the cases reviewed will likely not be affected by the findings in this review, comma, concerns were identified for a broader impact.

CHAIR GRIFFON: That's after review then, comma?

MEMBER MUNN: Yes, don't you think?

CHAIR GRIFFON: Yes, I'll let you and Paul do that sort of thing.

MEMBER MUNN: Thank you. Paul wasn't here.

MEMBER CLAWSON: You know, every time I hear this, I think you guys really must enjoy my emails.

MEMBER MUNN: They're wonderful.

CHAIR GRIFFON: I am always thankful I didn't have Paul as a professor, because I think he would have marked up a lot

of my reports.

MEMBER MUNN: He's very punctual.

CHAIR GRIFFON: Minus ones all over the place, you know.

MEMBER MUNN: Yes, I know.

MR. HINNEFELD: I recall we didn=t have to write very many actual sentences. I remember columns and calculations.

CHAIR GRIFFON: Yeah, yeah, yeah, that would be okay, but, yeah.

MEMBER MUNN: I don't have Paul's eagle eye.

CHAIR GRIFFON: That's right.

MR. HINNEFELD: It was Paul's.

CHAIR GRIFFON: The dangling participles, you know.

MEMBER MUNN: I can find those. The fifth page, the top of the fifth page. I may not be reading that paragraph exactly right, but it confuses me every time I read it. And I think there is a tense error in there at "Several cases were identified for

which OTIB-04 was used, but was found to be inappropriate due to the type of site and potential exposures the case involved were not properly characterized." But --

CHAIR GRIFFON: Wait. Where are you? Where are you reading? I'm sorry.

MEMBER MUNN: At the top of the next to the last page.

CHAIR GRIFFON: Oh, next to last page?

DR. MAURO: Right above seven.

CHAIR GRIFFON: Number seven, item number seven?

DR. MAURO: Right above.

MEMBER MUNN: Right above.

CHAIR GRIFFON: Above item seven, okay. I was on item seven.

MEMBER MUNN: Read that through and tell me what I'm missing. It confuses me.

CHAIR GRIFFON: Yes, I see.

MEMBER MUNN: Every time I read that sentence I say, huh.

CHAIR GRIFFON: It's a little scrambly, yeah. The tense things is definitely --

MEMBER MUNN: I think I know what you are talking about.

CHAIR GRIFFON: -- tripping me up, yeah, yeah.

MEMBER MUNN: But I'm not at all sure how it goes exactly.

CHAIR GRIFFON: This is cases were identified for -- I'm thinking of Apollo, I think, or NUMEC. NUMEC was one of them.

MEMBER MUNN: But that's not the point. The point is --

CHAIR GRIFFON: The language, right? Yes.

MEMBER MUNN: Okay.

CHAIR GRIFFON: OTIB-4 was used, but it was found to be inappropriate for the type of work at that site.

MR. HINNEFELD: It was measured.

CHAIR GRIFFON: Right. I mean, it

needs to be reworded for sure.

MR. HINNEFELD: Yes, it is kind of like read clauses, but only two of them --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: -- either two of them would be work together, but they almost like the third one. You know, the first one has to be in some sense or the third one has to be.

CHAIR GRIFFON: I agree, yeah, yeah, yeah.

MEMBER MUNN: It's extraneous in there.

DR. MAURO: Also it seems like if you're not inside the process that we went through, we would not really understand the relevance of this comment. In other words, it's a very general statement that here we have a procedure that was being followed, but, in fact, it wasn't. I mean, it was self-centered. In effect what I see is that here is a procedure that was written for a

particular purpose, but it ended up being expanded and used for other purposes where it really shouldn't be used.

CHAIR GRIFFON: Yes.

DR. MAURO: And I think that's the -- what is trying to be said.

MEMBER MUNN: But I don't think that's what is being said.

I'm not sure at all what is being said. And being familiar with what we have done, I can't imagine that someone who is not intimately familiar with what we have done would not also be confused with that sentence.

CHAIR GRIFFON: I like the way John said it, too, actually. So I'll rephrase that. I took that note down. I think it is easier if I try to redraft this before we meet in Augusta, you know, send it out like a week before.

We'll have time to look at it again. But I will change that, because it's a mess. Yes, I agree.

MEMBER MUNN: A week before is tomorrow.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Holy cow, that's right. That's what it is, yes.

MEMBER MUNN: It really is.

CHAIR GRIFFON: Yes, that's right. I thought we had another week in there for some reason. I guess I was hoping.

MEMBER MUNN: I think those are my only nits. Of course, we still lack the numbers.

CHAIR GRIFFON: Yes. Well, and-- I mean, the more substantive change I try to make and Stu gave me the dates on page 1.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And I was pretty close in my guess, but that's more precise.

MEMBER MUNN: Right.

CHAIR GRIFFON: And then I tried to break up that next paragraph to reference the tables, but SC&A put together a little

more.

MEMBER MUNN: It reads much nicer.

CHAIR GRIFFON: Yes, so they can look at the -- it refers them to the attachments instead of just the one on the POC. It kind of refers them to all the attachments.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And I guess I -- I mean, the other thing I tried to take out of it was any judgment on those tables necessarily, just sort of statistics and here they are.

MEMBER MUNN: That was appreciated. And frankly, I did not spend a lot of time looking at the attachments. I'm just working on the assumption that --

CHAIR GRIFFON: These were the ones that B They are basically pie graphs most of them. Tables.

MEMBER MUNN: I mean, I didn't take any time to verify the accuracy --

CHAIR GRIFFON: Right.

MEMBER MUNN: -- of the tables. I'm assuming that that's been done.

CHAIR GRIFFON: Did I send those along?

MEMBER MUNN: Yes.

CHAIR GRIFFON: I think I sent them.

MEMBER MUNN: You did.

CHAIR GRIFFON: Okay. Just to make sure, yes. And those were ones that I think Kathy presented at a meeting for us and then gave to us as --

MEMBER MUNN: I just did not check their accuracy with the information.

CHAIR GRIFFON: Right, right, right. And if you look at them and think you want to --

MEMBER MUNN: No. The presentation was very easy for the reader to follow.

CHAIR GRIFFON: Right.

MEMBER MUNN: Am I the only person who is going to complain about any of this?

CHAIR GRIFFON: Well, that wasn't even a complaint, Wanda.

DR. MAURO: I think it's an important observation. I mean, just reading it down. I think it's an important graph, the first one.

Listen, our goal is to look at 2.5 percent and we really haven't. Now, is that a problem? I mean, even at 2.5 percent, I guess, was picked on some basis.

CHAIR GRIFFON: Well, it was based on the former.

MEMBER MUNN: It was fairly arbitrary. We knew what was statistically submitted, the numbers, and we went into that.

DR. MAURO: Right.

CHAIR GRIFFON: Well, it was sort of based on Till=s sampling of the Veteran's Program.

MEMBER MUNN: Right.

DR. MAURO: Took guidance from there, and the question is because we didn't do 2.5 percent, we did about half or less than half of that, is there anything that you think that as being mighty important that is being missed? I mean, I'm trying to think myself. I think about, you know, doing all this for five years and looking at all these different sites and all the different cases and the kinds of insights we are getting.

I can just pass on to you folks that we are noticing that every -- the next round, each next round of cases that we look at is becoming a repeat to a large extent. It's almost as if we -- I don't know. Certainly, Doug, do you feel as if that each next stage it's almost as if we are getting 1.50 percent?

Now, I think I've got a point with this. I would say that I know when I do the AWEs, I would say 70 percent of my findings are already found.

And maybe 30 percent are new ones now unique to this particular site now. And everything else is more or less a carry-over from similar -- so it's almost as if --

CHAIR GRIFFON: That are unresolved?

DR. MAURO: We are getting -- we are still catching --

CHAIR GRIFFON: It's just a repeat as well.

(Simultaneous speaking)

CHAIR GRIFFON: They may or may not be resolved.

DR. MAURO: So the idea that, you know -- I don't know, I'm just trying to think about what I have seen and the fact that we didn't hit 2.5 percent. I have to say my reaction to that and your judgment, of course, is it is not a fatal flaw.

In other words, the fact that we have been hit in the last five years --

CHAIR GRIFFON: Well, we didn't

expect to hit it.

DR. MAURO: Oh, okay. Okay.

CHAIR GRIFFON: This is the report on the first 100.

DR. MAURO: Oh, the first 100, right. But I mean, even the fact that -- you know, I don't know what percent we are at now, how many there actually are.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: I think we're pretty close actually.

CHAIR GRIFFON: There's 20,000 some aren't there? I don't know how many.

MR. HINNEFELD: I would say we have done -- yes, I think we have done a little over 20,000.

DR. MAURO: And so we have done 140, how many hundred? How many?

CHAIR GRIFFON: So 1 percent. Well, 1 percent is still about 200.

DR. MAURO: We're still short.

CHAIR GRIFFON: Right. I don't

know. I thought --

CHAIR GRIFFON: This is probably--

DR. MAURO: -- what's the significance of the fact we're basically operating at a pace, especially less, quite a bit less than what the original pace was. And are there consequences to that that we perceive? And right now, I have to say I don't know. You know, we're catching a lot of stuff.

CHAIR GRIFFON: I don't think there --

DR. MAURO: And we're missing a lot of stuff.

MEMBER MUNN: The key is that virtually all of the permutations of concerns that could arise. You have been permitted one way or another.

CHAIR GRIFFON: I disagree. I mean, you know, I think for me and I took some of the -- I tried to take some of the tone out of this, but I think the thing you can't miss

in this report is that we said from the beginning that we wanted to weight heavily on the 45 to 50. They just weren't available at this time. So we don't have any weight on that at all.

DR. MAURO: Exactly.

CHAIR GRIFFON: You've got -- you know, when you are talking 4 out of 100 cases --

DR. MAURO: I agree with that.

CHAIR GRIFFON: -- being that way, you know, it's no surprise to me that cases that come into us at 10 percent POC --

MEMBER MUNN: Right.

CHAIR GRIFFON: -- or 70 percent, you know, that we are not finding fatal flaws, as you say, you know.

MEMBER MUNN: I'm misinterpreting what I was saying.

CHAIR GRIFFON: Oh.

MEMBER MUNN: I meant I did not specifically with respect to the dose

reconstruction activities themselves, but in terms of the overall picture of the site and how we go about things.

CHAIR GRIFFON: Oh, okay.

MEMBER MUNN: We have pretty much identified where the major issues lie.

CHAIR GRIFFON: Oh, okay, okay. I misinterpreted you.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: Sorry.

CHAIR GRIFFON: No, that's all right.

DR. MAURO: Okay. So I read this once, an earlier version. I think that maybe the most important exhibit is Table 5.

CHAIR GRIFFON: Is that the one with the POC?

DR. MAURO: That's the pie chart with the POC.

CHAIR GRIFFON: Yes. And I --

DR. MAURO: Yes.

CHAIR GRIFFON: -- think I stated that pretty, you know. strongly. That's the one I saved for last.

DR. MAURO: Yes, see because, in effect, that was happening -- I -- what is happening is that I think that it's almost like two phases. The process we just came through has two phases. Remember we did realize. We transitioned. A transition phase where they were drawing it. And even though we didn't hit 2.5 percent on that, I don't think that's important, not very important, because of the recurring nature of the comments that are associated with the low hanging fruit.

Now, we have moved into a phase where we're always looking at the 45 to 40, you know, the realistic ones. And according to the pie chart, we're going with -- I have all the ones we looked at only 5 percent. But here is where things got a problem, findings have substantial import. And now, we are at

the place where, you know, the -- I guess, the robustness of the program in terms of all the procedures, all of the approaches, the quality assurance, every aspect of the program.

The site profiles to the procedures have become you've got to get it right. And so, in effect, the first -- in this first set, by their very nature, these first 100 B So I mean, there is -- so there is a transition leaving that. Now, I don't know when we really start to pick up the pace. For example, if we've got a pie chart right now --

MEMBER MUNN: We're on about the third set, I think.

DR. MAURO: Yes. But where I think that, you know, then it becomes a matter of okay, now we have transitioned into these more difficult cases, the ones that really it's important that we catch things that might, you know, have reversals. And it's at that point where the percent that you review

will have lots.

A review of these percents and you find 1 out of 100 are possible, potential reversibles. We don't say --

CHAIR GRIFFON: It's also hard, by their very nature as we found out, you know. I mean, the number available is often, you know, we just have the numbers, you know.

MR. HINNEFELD: For a focus like that, I think you should really think about your selection and maybe select review for every single one on 45 and 50, because I honestly don't believe the number is going to be in the 45 percent of the overall total --

CHAIR GRIFFON: Of the overall total.

MR. HINNEFELD: -- in that range.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Because you constantly look for them.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes.

MR. HINNEFELD: And/or, you know, at least lately and still you don't find all that many.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: So I think we may want to --

CHAIR GRIFFON: We might want to do it all.

MR. HINNEFELD: You may just want to think we're going to review every single one that is between 45 and 50.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And I think you will still be left with 2.5 percent.

CHAIR GRIFFON: Yes.

MEMBER MUNN: That's not true.

MR. HINNEFELD: And maybe if you want to do some additional looks as well, you can, you know, review some other criteria as well. But if that's really where you want to focus, you feel like that's where the worthwhile review is and there aren't going to

be that many --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- at least just check. I can -- it will take me a day or two for the query to run for how many there are.

CHAIR GRIFFON: Well, don't you usually pull out all the cases between 45 and 50? The last couple of times I thought you -- or were you pulling out best estimates?

MR. HINNEFELD: I have pulled all the ones that were best estimates.

CHAIR GRIFFON: Best estimates. We were thinking that that was --

MR. HINNEFELD: Now, this last model -- this last time -- well, they shouldn't be in this range of POCs if they are not pulled in --

CHAIR GRIFFON: Right, right, right. That was the --

MR. HINNEFELD: Yes. So they should all be on that list.

CHAIR GRIFFON: Right, right. And

we weren't getting that many.

MR. HINNEFELD: This most recent pull -- you know from looking through there, there are not that many in that range.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And in this most recent pull, I didn't go all the way back. I drew some arbitrary copies. I had to be finished by January 1, '07 or something.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So I didn't go all the way back. But those are the ones. Every single one and it's on this No. 11 selection wasn't, of course, handed down yet. But so you may just want -- I'm just suggesting in order to focus on those, choose every single one and then maybe if you have some ideas, some other things you want to look at, use the second set of criteria. I think you are going to need to select more than 2.5 percent objectives.

CHAIR GRIFFON: But even these, I

think, and now that I'm looking at that graphic, I might even ask SC&A to modify that, because I think it would be more telling to break up that 0 to 45 a little more. You know, give us a little more stratification in there, in your pie graph.

Because I think also, you know, if we are not finding many at all in 45 to 50, we might then look from 40 to 50 or whatever.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: And let's see how we -- our breakout rate now is in that regard. I don't know.

MEMBER MUNN: Well, we started out looking at decades when we were first looking at them.

CHAIR GRIFFON: Yes.

MEMBER MUNN: I don't mean --

CHAIR GRIFFON: I know what you mean.

MEMBER MUNN: -- temporal.

CHAIR GRIFFON: Right.

MEMBER MUNN: I mean, decades.

CHAIR GRIFFON: Right.

MEMBER MUNN: Categorically. And I think almost everybody agrees that anything below about 30 percent was really pointless to look again.

CHAIR GRIFFON: Right.

MEMBER MUNN: But it always -- I would think it would be helpful to the casual dealer to see.

CHAIR GRIFFON: See the breakout there.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I am going to ask you, John, as an action -- or, Kathy, are you on the phone?

MS. BEHLING: Yes, I'm here. I can break that down.

CHAIR GRIFFON: Okay.

MS. BEHLING: That's not a problem.

CHAIR GRIFFON: Thanks. But the

other graphics, the other testaments in here are important. And I'm thinking back to what was said at the last meeting. I mean, I just modified my one sentence here. I was sitting counting the number of sites and I think that is important to relate to the -- to our audience. But you know, we did 100 reviews and it covers 37 on that list. But I put parenthetically 37 different sites.

DR. MAURO: Yes.

CHAIR GRIFFON: So we are -- you know, in terms of who we sort of are -- you know, the community throughout the United States and all the claimants, you know, we're trying to cover.

MEMBER MUNN: In terms of --

CHAIR GRIFFON: We're trying to be broad about this and looking --

MEMBER MUNN: They are covered.

CHAIR GRIFFON: Yes.

DR. MAURO: And the cancer types, I mean.

CHAIR GRIFFON: Right.

DR. MAURO: I think the design.

CHAIR GRIFFON: Right.

DR. MAURO: The initial design was well conceived.

CHAIR GRIFFON: Was pretty well.

DR. MAURO: And it was implemented. The fact that we didn't do as many was -- the way I look at it, it's not as important as the fact that we did achieve the other objectives, namely the cross sections.

CHAIR GRIFFON: Yes, very good. We got a reasonable selection across decades.

DR. MAURO: But the outcome of that now as this program matures in terms of these kinds of data and what they tell us is driving the conversation we just had, which is important, which means that we are maturing in our thinking about how do we take our samples now.

CHAIR GRIFFON: Yes, we're next.

DR. MAURO: And we're next. I

think that's an important thing.

CHAIR GRIFFON: Yes.

MR. KATZ: I think it's good that you are having this conversation, because I think this is a natural one for the Augusta agenda to discuss.

CHAIR GRIFFON: Yes, and I was going to try to present this. If the Subcommittee agrees on this draft, I'm sure the Board Members will have opinions, too, so it might not be the final thing written out, but I can go through this, including all the attachments and have that discussion then. And also mention that we are queuing up an 11^{th} set, you know.

Mike or Brad, any comments on that?

MEMBER CLAWSON: Well, I would like and there should be a final choice.

CHAIR GRIFFON: Oh no, more grammar.

MEMBER CLAWSON: No, coming to me.

CHAIR GRIFFON: It's never my strength, you know.

MR. KATZ: Something to think about when you do that, you guys are thinking about it anyway, so they adjust the agenda, this very topic. So there is both the question of selection, how do you want to go forward.

CHAIR GRIFFON: Right.

MR. KATZ: In terms of selection. The other question that is a sort of natural one since we are going to be transitioning to a new contract for your support and so on is just numbers, too. How -- I mean, you raised the question earlier on with me about, you know, are we doing enough dose reconstruction reviews?

CHAIR GRIFFON: Right, right.

MR. KATZ: I think that's another one to raise with the whole Board.

CHAIR GRIFFON: Yes, just so everyone -- I mean, I raised the question of

the number of cases per contract cycle.

MR. KATZ: Yes.

CHAIR GRIFFON: And whether we need to ramp up to meet our goals of 2.5 percent.

DR. MAURO: We have been operating at 60 cases a year.

CHAIR GRIFFON: Yes.

DR. MAURO: And that was due to the fact that, I understand, the update -- you guys -- we don't know what --

CHAIR GRIFFON: Right, right.

DR. MAURO: It's something like that. Just from the point of capacity, there are two -- if we were operating at this -- under the same level of complexity that we have in the past year or so, which means, you know, we're moving heavily into the more realistic cases.

CHAIR GRIFFON: Right.

DR. MAURO: We could double our capacity. I mean, that's it, otherwise, we --

I think -- I don't think -- otherwise if the Board --

CHAIR GRIFFON: You could do up to 120 a year.

DR. MAURO: We could do that.

MR. HINNEFELD: There can be twice as many.

DR. MAURO: Well, you know, I have been trying to look at the big picture.

CHAIR GRIFFON: Yes.

DR. MAURO: And the resources we have, the work hours and our skilled resources have. And the reality is I realize that, the program and I feel confident, we can wrap up at twice that.

CHAIR GRIFFON: Right, if the Board wanted to do that.

DR. MAURO: But the only downside, the only place where I have reservations is that each case is taking a little longer to do.

CHAIR GRIFFON: We end up thinking

about the resolution process anyway. I'm not sure if you got that far ahead of us if it will be even worthwhile, you know.

DR. MAURO: We have to get to -- you know, we're doing a very good job on it. I mean, we're up to the seventh case.

CHAIR GRIFFON: Yes, we're up to the seventh. You're only on the 10th, right? So, yes, we're not lagging too far behind.

MR. HINNEFELD: And the rate limiting effect might be -- we might be the rate limiting factor, rather than --

CHAIR GRIFFON: Yes.

DR. MAURO: And remember as we move on to these cases, we're going to see the same stories over again, unless we get into these realistic cases where unique situations are --

CHAIR GRIFFON: Well, that's where I think you may not. You may not.

DR. MAURO: So it's complicated.

MR. FARVER: I think the number of

findings will decrease, because we have a lot of repetitive findings out of the way.

CHAIR GRIFFON: Right. But the difficulty of resolution --

MR. FARVER: We're actually in the range, right.

CHAIR GRIFFON: Yes, right, right. So anyway, any more comments on the draft? I'll try to -- I mean, you can send me stuff up to -- you know, I guess, I've got to cut it off. Like this Thursday, I've got to send it out to the Board Members, everybody else by Thursday, I would say. So if you have any other particulars you want to email me, that's fine. I'll try to do it during Wanda's meeting tomorrow or Wednesday more likely.

MEMBER MUNN: Thanks.

CHAIR GRIFFON: It sounds like an action-packed meeting tomorrow, so I probably won't have an opportunity tomorrow, but Wednesday, I'll finish it and send it out.

MEMBER MUNN: Well, thank you for

getting these drafts back early enough, so I can take a look at them.

CHAIR GRIFFON: All right. Let's move on to the seventh set then.

DR. MAURO: He says reluctantly.

CHAIR GRIFFON: This is where I fade with the early morning travel. All right. The seventh set. We did go through once already. I'm sure everybody remembers exactly every finding.

Let's see, I'm going to -- let me just pull it up and I want to see what my most recent version is. I have actions from June 10th meeting is the last electronic file I have. I have a matrix dated June 10, 2008 is the last electronic version I have. And then at the August 20th meeting, I think, is where I have some handwritten resolutions.

But the last electronic version I have, I think, that I sent out was -- is June 10, 2008. Wanda, do you have that one?

MEMBER MUNN: I'm trying to --

interestingly enough, that was not one of the policy forms.

CHAIR GRIFFON: Uh-oh.

MEMBER MUNN: I have numerous other numbers that I have.

CHAIR GRIFFON: Stu, do you have that? Could you read?

MR. HINNEFELD: I am looking for it.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Because to be honest with you, I believe I have an older one on my scandisk.

CHAIR GRIFFON: Oh, okay.

MEMBER MUNN: I have an August 20.

CHAIR GRIFFON: I'm not on the Internet.

MEMBER MUNN: I have --

DR. MAURO: I'm sorry, Mark, did you say the June 10th date was an action one or is that --

CHAIR GRIFFON: No.

DR. MAURO: The name of the file?

CHAIR GRIFFON: June 10th was in the name of the matrix, but also in the actions, yes. Seventh set actions from the June 10th meeting.

DR. MAURO: That's what we're looking at.

CHAIR GRIFFON: So there is an action list as well. And I think there is just a one-pager.

DR. MAURO: Yes.

CHAIR GRIFFON: Yes.

MR. FARVER: The other ones I have say June 6th in the title.

CHAIR GRIFFON: Is that the matrix or the action?

MR. FARVER: The matrix.

CHAIR GRIFFON: The matrix? It says June 2nd?

DR. MAURO: That's what I have, too.

CHAIR GRIFFON: In the title?

DR. MAURO: Yes.

CHAIR GRIFFON: Is there a header on your's? No? It just starts off right with the thing, right? Mine says June 10, 2008.

MR. FARVER: I've got one that says prepared by work group February 15, 2007. And then in the footer it says update May 30, 2008. That looks like one that was sent with NIOSH responses.

CHAIR GRIFFON: Oh, I see, yes, okay. 7/28, matrix really sent to Subcommittee June 2, '08. Is that what -- you have that file?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay. And then on the header on that it says prepared February 15, '07, right?

MR. FARVER: Correct.

CHAIR GRIFFON: Okay. I have a different one, but I think they are the same in terms of content.

MR. FARVER: I might have one that

you updated.

CHAIR GRIFFON: Yes. I have -- yes, I might have updated.

MR. FARVER: During the meeting.

CHAIR GRIFFON: But I said -- yes, okay.

DR. MAURO: Am I correct that this one that I'm looking at looks like it has been populated? All of them have been populated by NIOSH? That was the large --

CHAIR GRIFFON: Most of them, yes. Some --

DR. MAURO: Some not.

CHAIR GRIFFON: Well, let's just work from that one that says June 2nd, since most people have that. Wait a second.

MR. HINNEFELD: I think I have one.

CHAIR GRIFFON: No, I've got one.

MR. HINNEFELD: That would be the one with the August 20th meeting date on it.

CHAIR GRIFFON: Yes, this one that

I'm looking at has sent to Subcommittee June 10, '08.

MR. HINNEFELD: Okay.

CHAIR GRIFFON: And it does have some -- it has a lot of resolutions in here. It must be from the June 10th meeting maybe.

MR. HINNEFELD: It is probably. I don't know what the -- whether resolutions came June 10th or not. Scott just forwarded this one to me and it says sent -- it was really sent to the Subcommittee on June 2nd. He sent me that one.

DR. MAURO: What was the file date?

MR. HINNEFELD: No, that's an older one. No.

DR. MAURO: Okay. Now, the one I -- the latest one that I have is -- it says to Subcommittee for August 20th meeting, August 20, 2008 meeting.

CHAIR GRIFFON: Oh, okay.

DR. MAURO: I can send that one.

MR. HINNEFELD: And what's the --

CHAIR GRIFFON: All right. We might be working with a couple different versions. I have some -- in my matrix, I have some that have, for instance, 128.2. I have NIOSH has reviewed DR tool, compensable case, no further action. I have a lot of the resolutions typed in here. It doesn't include a couple of the things that Stu has in another version that he says was sent to the Subcommittee on -- for August 20th meeting.

MR. HINNEFELD: That's for the June 20th meeting.

CHAIR GRIFFON: August 20th I thought.

MR. HINNEFELD: August 20th.

CHAIR GRIFFON: Yes. So you might have to have that one open while I have this one open.

MR. HINNEFELD: I'm going to send what I got to everybody.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: We can look at it.

CHAIR GRIFFON: I'll merge this into one final document. You know, we will just go through them step by step. We'll just go through them step by step. It looks like I updated one version of the matrix and Stu updated and added some NIOSH responses in an older version. So we have got kind of two things going on here.

DR. MAURO: And we have sort of a third level, that is in response to Stu's material that was sent to us.

CHAIR GRIFFON: Yes.

DR. MAURO: Doug looked at as much of it as he could and he apparently has marked in our position regarding this.

CHAIR GRIFFON: Did you put it in the matrix?

DR. MAURO: Well, it's on here anyway.

CHAIR GRIFFON: Okay.

DR. MAURO: Have you seen it?

CHAIR GRIFFON: I haven't seen it.

MR. FARVER: No, you haven't, because that's the same thing I brought to the last meeting.

CHAIR GRIFFON: All right.

MR. FARVER: When I got through this, I go through all these new responses.

CHAIR GRIFFON: Right, right, right.

MR. FARVER: And come up with my response and that's what I tell you.

CHAIR GRIFFON: All right, all right. Well, let's go through them one by one and out of this meeting I will fix the sixth and seventh matrix, so we have one final copy of both, you know. One updated final copy. And then we will work to getting that database set up so we don't have, you know.

MEMBER MUNN: What we're going to need is that setup.

CHAIR GRIFFON: What's that?

MEMBER MUNN: The proofings.

Because I have all kinds of individual communications regarding the seventh set.

CHAIR GRIFFON: But you don't have a matrix?

MEMBER MUNN: I don't know where the matrix was.

CHAIR GRIFFON: Stu, can you supply her one?

MR. HINNEFELD: I just sent it.

CHAIR GRIFFON: Oh, he sent it.

MR. HINNEFELD: The one I have that said it was --

CHAIR GRIFFON: All right.

MR. HINNEFELD: -- it looks like I put this stuff on it for the August 20th meeting. So I don't know that I had the most recent.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Like you said, I mean, it should have been updated.

MEMBER MUNN: Thank you very much.

CHAIR GRIFFON: All right. So

let's try to work with these three or four matrices, whatever we have. All the findings are the same, so, you know. All right.

Let's start at the top. And this one, 121.1, I don't have a NIOSH response, but I think you have had, right? So, yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay. This is Aliquippa Forge case.

MR. HINNEFELD: I have not opened the finding itself in the report, so I have it in the summary, but I can tell you what is written here as a response. The available information in the case is that no additional remediation occurred after the initial decontamination efforts in 1950.

Based on the nature of the contamination observed in 1978, spotty low level surface contamination. Using an inflated maximum exposure rate as described below to represent the plan average is considered a claim of favorable.

So the finding must have related to what -- the data that were used in the --

DR. MAURO: It's a classic problem --

MR. HINNEFELD: Yes.

DR. MAURO: -- across all of the residual radioactivity period for AWEs very often, and this is -- I remember this --

MR. HINNEFELD: Yes.

DR. MAURO: -- 1978 data. 1978 is a date to remember, because that's when very often the flush out program begins. And that's when the characterization begins. And very often characterization data is collected before the flush out clean-up begins as characterized.

And one of the concerns, and we've come across this many times, is that that very same reading, whether it is microrem per hour reading or swipe samples, it is used to reconstruct the doses from residual rating where it could be following operations. That

may have been 20 years ago, 20 years before.

And I -- my recurring comment is you really want to use 1978 data to reconstruct doses to people in the 1950s and perhaps '60s. And sometimes the 19 -- the data you refer to, now, this one I can't say for sure, I would have to look at, is host-decontamination and sometimes it's pre-decontamination.

What I just heard from you is it was pre-decontamination data.

MR. HINNEFELD: That's the way it's presented here.

DR. MAURO: That is a positive.

CHAIR GRIFFON: Yes.

DR. MAURO: Still you've got a 20 year period between.

CHAIR GRIFFON: Still you've got a 20 year period of draft.

DR. MAURO: Well, the response goes on. The general area dose rate measured in 1978 indicated no difference than

background. With that background being defined as .03 or .05 millirem per out. The exposure matrix was based on the upper end of this background range and assumed that at that level, the gamma radiation was due to residual activity. So, essentially, you know, it wasn't background. It was residual. And this leads to a claimant favorable .

MR. HINNEFELD: Okay. Let me say -- I mean, I have been looking this way. Because you have OTIB-60 now -- TBD-6000 and OTIB-70, you have come up with a much more formalized way of dealing with this issue. Two important things.

In TBD-6001, you have data on residual radioactivity for a variety of different kinds of sites that -- and the data go back to, you know, earlier years. So you now have almost like a catalog of information that, in my mind, represents a much better starting point for doing dose reconstruction during residual periods, especially when you

are looking at very large time spans between the beginning of the residual period and your later data.

I have to say I have a real problem using 1978 date for 1958, '60 exposures. And you have the wherewithal now between OTIB-70 and TBD-6000 to do a better job there.

Now, with all that being said, that doesn't mean we're talking about significant doses.

DR. MAURO: Yes.

MR. HINNEFELD: Unless the exposure is only that. Usually what we run into when a person is exposed during operations and then for a long period of time post-operations and the during operations always swamps the exposure, so, therefore, these comments on residual become of scientific interest. But in terms of their significance to the dose reconstruction and possibility of perhaps a reversal, it rarely

plays a role.

Nevertheless, I think that you have now built an infrastructure between OTIB-70 and TBD-6000/6001 that should be used. You know, whether or not you can go back and revisit this from that perspective, you know, I think my comment still stands.

DR. MAURO: Right.

MR. HINNEFELD: You don't want this 1978 data for 1958 exposures or whatever the year was.

DR. MAURO: Okay. That sounds, you know, not only that you have a finding, but you have a recommended solution, so that's actually kind of a plus.

CHAIR GRIFFON: Oh, but we haven't reviewed TIB-70 completely, right?

DR. MAURO: We did review TIB-70.

CHAIR GRIFFON: Potentially.

DR. MAURO: The procedures are working with it.

CHAIR GRIFFON: Yes.

DR. MAURO: But I know what they are talking about.

CHAIR GRIFFON: I guess that's --

DR. MAURO: He made a very detailed review, very comprehensive and it has some limitations, but not with respect to this. In other words, TIB-70 has five, I believe, different strategies. And OTIB-6 -- TBD-6000 had an array of different settings, all of which, like I said, represent a catalog.

MR. HINNEFELD: Right.

DR. MAURO: Some -- we have comments on some of those and some of those we find fine. We'll get to those eventually. What I'm trying to say is that now that you have that, what's done here? I don't know.

MR. HINNEFELD: Right.

DR. MAURO: You know, what we want to do here, I don't know. In a real case where you didn't have that available to you --

MR. HINNEFELD: Right. It wasn't

available at the time.

DR. MAURO: At the time.

MR. HINNEFELD: It wasn't until the year --

DR. MAURO: Exactly.

MR. HINNEFELD: And I mean, I think we have to -- you would have to assess whether TIB-70 would even make a difference. If you applied that methodology, would it even make a difference in the case?

DR. MAURO: That's right. That's something you might be able to look at quickly if it's a real low POC, you know what I mean? You don't have to go do the whole calculation. You can probably say, you know, there is no way.

MR. HINNEFELD: Okay. I think that maybe -- well, we have not done that. I mean, our response also goes on to compare doses like the Y-12 plan went, which was an operating uranium plant and two of the doses that this model assigned for the residual

period of the plant that periodically rolled uranium and they are fairly equivalent.

DR. MAURO: Right. But as you pointed out, you are looking at background.

MR. HINNEFELD: Yes.

DR. MAURO: In other words, you're saying by the time we got to 1970 it was background.

MR. HINNEFELD: It was background.

CHAIR GRIFFON: Right.

DR. MAURO: So you're right. Actually, you make a very good point and I think it would be worth our while to go take a look at that and see if we can't get away from the practice of -- since the '78 survey is all we have, we'll try to pull something out of that.

MR. HINNEFELD: I think that's the reason you built.

DR. MAURO: I'm pretty sure that's what we did it.

MR. HINNEFELD: Yes.

DR. MAURO: Yes.

CHAIR GRIFFON: So you are going to -- what's the action here? I just want to capture it correctly.

MR. HINNEFELD: Okay. NIOSH will evaluate the use of OTIB-70 and TBD-6000 for-- in place of the technique that was used.

CHAIR GRIFFON: All right. Yes, that's it.

DR. MAURO: As a general rule in every AWE, we do have some very -- in some cases, we do have some very significant findings for operations which are unique to that operation. Have to be dealt with on a case by case basis. However, once you get to the residual period, you generally find -- I see myself saying over and over again what I said just now.

CHAIR GRIFFON: Yes, all right. And does that apply for -- well, one and two seem to overlap a little bit, don't they? The data and the model is kind of what you are

saying?

MEMBER MUNN: Inappropriate?

CHAIR GRIFFON: Yes. Are they the same, John? Is it the same action, those two?

MEMBER MUNN: Inappropriate method. Measure inappropriate data --

DR. MAURO: Based on the rationale, same thing.

CHAIR GRIFFON: Yes. It is the same. Okay. I just wanted to make sure, since I only have the little snippet and you get the whole thing.

DR. MAURO: Yes.

CHAIR GRIFFON: And then 121.3, I think, is the inhalation side, inhalation and ingestion side of this same equation, right?

DR. MAURO: OTIB-9.

CHAIR GRIFFON: Use the '78 data again to --

DR. MAURO: I'm not sure.

CHAIR GRIFFON: I'm asking what I'm assuming, I guess.

MR. HINNEFELD: Actually, that one appears to have used -- here is what the August 20th response was. I'll show that one.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Contamination measurements summarized in a July 28, 1949 memo indicate contamination levels which are very consistent with the survey conducted in 1992, with the exception of two areas all contamination levels were less than 10,000 dpm. All contamination levels on the hearth protection plates and guide plates were 15,000 and 25,000 and 20,000, respectively.

The company narrative and subsequent correspondence, August 23, 1949 memo directed that these areas undergo additional decontamination. The survey data is consistent with the measurements of 1992, which would indicate that not only were the levels in '49 similar to those of 1992, but also that the material was not readily dispersable as indicated by the fact that

levels did not decrease in the 43 years since the survey.

MEMBER MUNN: Yes.

MR. HINNEFELD: NIOSH is not aware of the clean-up levels that were used at the time of, you know, standards at the time of the initial decontamination. However, based on the July 28, 1949 survey records and subsequent correspondence, it would appear that the value used in technical basis document, which is 11,500 dpm per 100 square centimeters, is spastic. So that was the response.

DR. MAURO: Okay. So your answer is -- your response is that you did the '49.

MR. HINNEFELD: In this case.

DR. MAURO: In this case you --

(Simultaneous speaking)

CHAIR GRIFFON: When was the operational period for this, do you know?

MR. HINNEFELD: Well, if I could find it. Oh, so this isn't a TIB-70 issue.

This is really a specific --

DR. MAURO: They have data. You have '49 data.

MR. HINNEFELD: It sounds like the data we have is from when they were shutting down, because they said --

CHAIR GRIFFON: At the end of the operation period.

MR. HINNEFELD: At the end of the operation.

DR. MAURO: Or what effectively you have done. It's implemented in '70 the most favorable way you could.

MR. SIEBERT: Operationally 47 to 50.

CHAIR GRIFFON: Okay. Okay. So but all I would ask is that -- I don't know if SC&A has seen those. So can I ask?

DR. MAURO: May have sent it earlier, but I don't know.

MR. HINNEFELD: Well, the memos would be in the SRDB. The August 29th memo

would be in the SRDB database. And I don't know who all I sent this to.

DR. MAURO: You may have sent it to --

MR. HINNEFELD: I sent it to you. I just did.

DR. MAURO: They came in.

MR. HINNEFELD: I just -- since we started talking about it.

DR. MAURO: Oh, okay.

(Simultaneous speaking)

DR. MAURO: I can take a look at it.

MR. HINNEFELD: And respond.

CHAIR GRIFFON: Yes, I'm going to put an action in.

DR. MAURO: In principle, that answer sounds pretty good.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes, the matrix that I'm reading from, I just emailed to everybody here in the room.

MS. BEHLING: Can you include me on the email, Kathy Behling?

MR. HINNEFELD: Oh, Kathy, you weren't in the room, so I didn't, but I will right now.

CHAIR GRIFFON: Her voice is.

MS. BEHLING: See what happens.

MR. HINNEFELD: That's what you get for attending by phone.

MS. BEHLING: Thank you.

CHAIR GRIFFON: Now, 121.4 and .5 and .6, I have as a global issue, right? Then 121.7, Doug or John, do you have a response? I see we have -- this response has been in there a while, May 30th.

MR. FARVER: Yes, I thought we--

CHAIR GRIFFON: Or it's NIOSH.

MR. FARVER: Yes, it's NIOSH's response.

CHAIR GRIFFON: Yes. And then do you have for 121.7?

MR. FARVER: I thought we

concurred with that one.

CHAIR GRIFFON: You did concur with that one?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: Okay.

CHAIR GRIFFON: 121.8.

MEMBER MUNN: We concurred.

CHAIR GRIFFON: That was like a summary you sent.

MEMBER MUNN: Can we close 7?

CHAIR GRIFFON: Yes, 7 is closed.

MR. FARVER: 8, I guess, you just close that. I don't know that there is --

CHAIR GRIFFON: Yes, it is kind of overlapping.

MR. FARVER: It shouldn't even be there.

CHAIR GRIFFON: So it should just be deleted, right?

MR. FARVER: Yes.

DR. MAURO: Delete it.

CHAIR GRIFFON: Yes. No finding. It's a summary. Okay. Then so we are off Aliquippa Forge, I guess.

DR. MAURO: Simonds Saw.

CHAIR GRIFFON: 122.1 and this is Simonds Saw, yes. I think we usually have the AWEs at the front end of these matrices.

DR. MAURO: I usually do, yes.

CHAIR GRIFFON: Yes.

DR. MAURO: Let's first find it. Ah, yes. I remember this. The -- Simonds Saw. The way in which external doses from activity on surfaces emerging were obtained in Simonds Saw were by hanging 20 film badges.

MEMBER MUNN: Yes.

DR. MAURO: Suspended from the room.

MEMBER MUNN: Yes.

DR. MAURO: When you read it, it sounds good. And as far as I'm concerned, that is the way to do it.

MEMBER MUNN: Yes.

DR. MAURO: However, this guy was a furnace operator. Now, we have information that the guy that worked with the furnace was involved in an area where there was residue and the contamination had a much greater potential for exposure. And I think, I believe -- did you -- I would have said rather than using the median for the full distribution, which I believe is what was used, for this guy I would have used a 94 percent out.

Because you know, you think of this room, this big complex and you've got all these film badge measurements and you look at the distribution of the film badge measurements, which are probably a very good characterization of what the distribution exposure might have been in that building, but there are going to be places where it's nasty.

CHAIR GRIFFON: Yes.

DR. MAURO: At the upper end.

Now --

CHAIR GRIFFON: Or beyond the upper end. But you figure it out there all the time.

DR. MAURO: But if there are places where there is a high end and if it's plausible that there are people that could have worked there for extended periods of time at the higher end, using the geometric means really nothing.

My observation was we're talking about a guy who worked as the furnace operator and we have plenty of data on furnace operators, that's the nasty place. So not knowing -- having better information, in this case, I think using the upper end of the distribution of the film badge ratings, but probably would have been more appropriate to this particular worker.

CHAIR GRIFFON: Well, this is a question where I would question whether the upper end is even bounding for this person, because of the way you described the, you

know, exposure measurements from the ceiling. You are going to get the workers that are around the areas, but if he is inside and --

DR. MAURO: Well, I mean, this experiment --

CHAIR GRIFFON: You need exposure environment.

DR. MAURO: Yes. Well, I mean, I understand what you're saying.

CHAIR GRIFFON: Yes.

DR. MAURO: To me, I mean, it's every time you reach a certain point in these kinds of reconstruction you say, okay, you know, what do you do? You know, and yes, it might be even higher, but, to me, picking off the upper end where you have a distribution of values and if there is reason to believe that the particular person you're dealing with probably experienced something closer to the higher end of the distribution than the median, there's reason to believe that, which I think there is in this case, I just go -- I

just say why don't you use a higher end value?

CHAIR GRIFFON: But you are not answering my question. What's your reason to believe that it's not higher than that?

DR. MAURO: I don't have a reason to believe that.

MEMBER MUNN: Well, sure you do.

CHAIR GRIFFON: Because I don't know what the external exposure rates would be in that furnace operation compared to the general --

DR. MAURO: Well, we want --

CHAIR GRIFFON: You take the general area external rates, basically, is what you are getting with this.

DR. MAURO: Well, you know --

CHAIR GRIFFON: Those hanging samples.

DR. MAURO: -- in general, the -- I think it's bounded. You know that the dose from an infinite slab --

CHAIR GRIFFON: Right. You can

certainly bound that.

DR. MAURO: -- is 2 mr per hour, at one foot. Okay. Now, so, I mean, you want to go to the extremes, you can just assume 2 mr per hour at one foot as being the external exposure, maximum external exposure that a person possibly could experience in the uranium facility. Penetrating radiation 2 mr per hour at one foot, you can't get more than that.

MEMBER MUNN: Right, no.

DR. MAURO: And I don't know where that -- the 90 percentile --

CHAIR GRIFFON: Which I don't know what the number is.

DR. MAURO: Yes, well, right.

CHAIR GRIFFON: You know, yes. That's the only reason I'm raising the question then for that number.

DR. MAURO: Now, I mean, if you want to get into it, we'll see what number, you know, what digit you use. Do we have a

dose rate that they used? What was the -- was it .26 mr? There it was. I think you used .26 mr per hour at the geometric -- no, I'm sorry. For penetrating rates, geometric -- okay.

I believe, according to the write-up, you used .26 mr per hour as the geometric lead. Okay. Now, in my opinion, if you went with the upper end, what would the upper end come to? Did I give the number here?

CHAIR GRIFFON: I don't believe you did.

DR. MAURO: Okay. Well, anyway, in theory, it could have been 10 times higher. In other words, if you wanted to -- say what's the off the charts highest it could have been? It could have been 10 times higher for this guy, you know, if he was 1 foot away from the infinite slab of uranium.

I didn't say that is what you should use. I just said that --

CHAIR GRIFFON: I think Scott has

got the numbers.

DR. MAURO: Yes, he may have it there.

MR. SIEBERT: Actually, I was looking at something else.

CHAIR GRIFFON: Oh, you were looking at something else. Okay.

MR. SIEBERT: To see if we signed that as a consent or --

DR. MAURO: We got the geometric standard that was -- the geometric standard -- okay. If I have a geometric mean of 2.6 mr --

CHAIR GRIFFON: .26.

DR. MAURO: .26 mr per hour and the geometric standard deviation of 1.2, are there any statisticians in the room? What would that give you for the 95^{th} percentile?

MR. HINNEFELD: I don't do that. I don't juggle.

CHAIR GRIFFON: Close.

MR. HINNEFELD: What is the GSD?

DR. MAURO: The little equation.

MR. HINNEFELD: GSD was what, 1.?

DR. MAURO: 1.2.

MR. HINNEFELD: Yes.

DR. MAURO: Multiply by 3.

MR. HINNEFELD: You take that, you take 1.2 to the 3rd power and multiply that number times the geometric.

DR. MAURO: Yes. So instead of being .26 --

MR. HINNEFELD: .6/.7.

DR. MAURO: .6/.7. So I would have come in at .7. You would have come in at something maybe as high as 2.

MR. HINNEFELD: Well, no.

DR. MAURO: I mean, that would be off the charts. Well, as far as I'm concerned, here is the place where you have to make a judgment call.

MR. HINNEFELD: Yes.

DR. MAURO: You know, if you would have went with the upper -- say the 94 percentile or the 84 percent, in other words,

an upper end number as opposed to the median number. It probably would have been better for this guy, because has a furnace operator.

If he were like a supervisor that roamed the floor, you know, he was just sort of like everywhere, then I would say yes, go with the geometric mean.

MR. HINNEFELD: Okay. I understand your point. I understand certainly the 95th percentile as you describe it. In fact, Jim and I have had a recent discussion about 94 percentiles. And in this instance where you have a series of measurements and there is a measurement that you would expect to relate to the, quote, worst area in the plant and there is a reasonable likelihood that people's job put them in that location.

DR. MAURO: Right.

MR. HINNEFELD: Not worst, but highest measure.

DR. MAURO: All right.

MR. HINNEFELD: The highest

measure value.

CHAIR GRIFFON: That was my question.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Is does it represent that? I'm not sure that it does.

MR. HINNEFELD: And so there is a chance our person were assigned to work in something like that, I mean, weren't assigned, not everybody was assigned to work throughout, then at that -- that's the kind of thought process where you can say okay --

DR. MAURO: That's just common sense.

MR. HINNEFELD: -- NIOSH distribution with the 95th. Okay. So I understand that.

CHAIR GRIFFON: So is .7 good?

MR. HINNEFELD: When we deal with these though, let's go context. We're talking now about the immersion and contamination dose. Not from standing close to uranium.

We're talking about immersion and contamination in a contaminated -- in a uranium contaminated environment. That's the component we are talking about.

And I think when you start to look at the value and what, you know, value did we arrive at, I think you can be informed by what were the doses that were assigned overall, because there is also a component in this dose reconstruction of the dose that the person got, because they were standing next to the uranium.

DR. MAURO: Okay.

MR. HINNEFELD: Okay. So that's an additional component that is added in. And so you take that total external dose --

DR. MAURO: Yes, I get you.

MR. HINNEFELD: -- where this model is assigned, I don't even know what it is, but you take the total external dose model assigned and compare it to what you know about measured doses in uranium handling facilities.

And I think that could be important.

DR. MAURO: I really remember doing this one. The real dose is going to come -- see that's going to be a small contributor of the dose.

MR. HINNEFELD: Right.

DR. MAURO: The real dose is that he was -- he basically worked at -- the fault exposure matrix in this facility had a person standing next to what they call these little rods, billets, billets and rods. In other words, he was a furnace operator. So his dose has got -- his real external dose is not going to come from some residue on the floor.

MR. HINNEFELD: Right.

DR. MAURO: Although, if you go to .7 mR per hour it might. That's pushing it.

MR. HINNEFELD: Yes, but we'll get back to my point that I made.

DR. MAURO: We'll just have to -- but now, the important point is -- though is the proximity to the rods and billets is where

you get your external exposure at this facility. Not so much from residual radioactivity.

MR. HINNEFELD: Right.

DR. MAURO: Even though our during operations would -- we're talking during operations. You can picture during operations, you've got airborne dust, which is not really going to contribute very much at all externally. You've got this little dust on the ground, that's not going to contribute that much.

But then you have billets and rods and swags --

MR. HINNEFELD: And materials.

DR. MAURO: -- and the guys up close in person. Now, in this case, I remember my concern was there is a default assumption regarding how much time you spend next to a rod and how much time you spend next to a billet.

MR. HINNEFELD: Right.

DR. MAURO: And each one is a pretty -- there is a difference in the dose rate of about a factor of 2, because of the geometry. Now, stuff comes back to you. He is a furnace operator. He is only going to operate -- he is not going to spend too much time -- I think he has spent most of his time with the material that has to be heated before you roll it out.

So it starts with the billet. So his external exposure is going to get up close and personal to billets and not rods.

MR. HINNEFELD: Okay.

DR. MAURO: All right. Because he is a -- he is heating the stuff up, yes. And the billets, if I recall, have a higher exposure rate. Billets have, here it is, an exposure rate that is about twice the rods. So the bottom line is I think that if you were to tailor the dose, in other words, you just went through the standard approach and the exposure matrix.

MR. HINNEFELD: One size fits all.

DR. MAURO: One size fits all. I would argue that in this case, as a matter of fact when I -- the write-up says here is a guy that we have some more information on. He was a furnace operator. And on that basis, for two reasons, maybe we could have done a better job in doing these external exposures.

One, the more important one is he probably spent most of his time next to billets and not rods where the dose rate is about twice as high.

And second, he probably was in the area where the residual radioactivity might have been a little higher for the same reasons, because, you know, there's a lot of spark in that junk and they shovel, they use the furnace also to shovel the residue in.

CHAIR GRIFFON: Okay. So, John, you are under 122.3 really.

DR. MAURO: Okay. Well, but yes. I expect you to --

CHAIR GRIFFON: So 122.1, I think, that is right. I was thinking wrong. I was thinking it was during the residual period.

DR. MAURO: This is during operations.

CHAIR GRIFFON: Yes.

DR. MAURO: This is during operations.

CHAIR GRIFFON: I see that's only from the submersion. I thought it was your entire area.

DR. MAURO: Yes, this is during operations.

CHAIR GRIFFON: Yes.

DR. MAURO: 49 was during operations, right?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: 49 was during operations.

DR. MAURO: So in the end now, what we are talking about from an external point of view, I guess, mainly because of this

billet versus rod business, we might have underestimated dose by a factor of 2 external. How important that is for this guy's cancer, you know? I'm not sure. But I think you might have been low by about half.

CHAIR GRIFFON: Yes.

DR. MAURO: You can easily see a person saying if I wanted to tailor --

CHAIR GRIFFON: You are saying billets versus rods, in fact, are two different -- but what is the actual number for those?

DR. MAURO: You would have to go to the summary table. Where is the external summary table? Somewhere are the doses. It's right in the beginning.

CHAIR GRIFFON: I mean, it's more significant than the submersion issue?

DR. MAURO: And internal could be the whole -- here it is. Internal is an old dried up newspaper. I need the summary table. Okay. Here. Okay. You just left it. What

happened? You know each one of these dose reconstructions we make like a little summary table of the contribution from during operations external, residual versus the source, you know.

MEMBER MUNN: Right.

DR. MAURO: And the summary table is what we're trying to zero-in on and for some reason it won't stay.

CHAIR GRIFFON: It won't stay on the screen. All right.

DR. MAURO: Use the arrow.

CHAIR GRIFFON: I'm trying.

DR. MAURO: The important point now when you go through the summary table, if external exposure is a drive-up, in this case, and it might be, it may not be, you have to take a look at the table, but I didn't do it that way, I swear.

MS. BEHLING: The external is the driver here.

DR. MAURO: So the external is the

driver. So if you double the external, you're going to have a significant effect on the dose. What's the POC? Do you know, Kathy, off hand?

MS. BEHLING: 28 percent.

CHAIR GRIFFON: 28, yes.

DR. MAURO: It may not reverse it.

CHAIR GRIFFON: Right, right.

DR. MAURO: You have to look at it. I don't know. 28. In other words, it's not linear.

MS. BEHLING: No.

MR. HINNEFELD: It's not linear.

CHAIR GRIFFON: So let's go back to 122.1 though, the submersion dose. Now, that you realize that -- I mean, it seems like the heavier weight of the dose is from the external. The billets -- the rods and the billets.

DR. MAURO: Yes, if you look at--

CHAIR GRIFFON: For 122.3 my resolution right now --

DR. MAURO: Right. The residual --

CHAIR GRIFFON: -- there is no resolution. The SC&A feels that it may not be bounding for this particular worker. That's for 122.3. But 122.1 I'm going back to the --

DR. MAURO: Residual.

CHAIR GRIFFON: -- submersion stuff.

DR. MAURO: Yes. In other words, right now, I'm looking at the summary table. They assigned 3 rem to the precision radioactivity period. External drm, that's residual.

CHAIR GRIFFON: No.

DR. MAURO: Okay. I'm sorry. Anyway, the dose from operations, when he is operating, when he is next to the billets and rods and he is also submersed, that's most of the dose. It's 8 rem. That -- my guess is that could easily go into 16 then, if you were to be able to, you know, use the approach I

described.

And you know, to me, that sounds like in this case it might be -- it will certainly drive up the POC, whether it will be submersed or not. We didn't have this -- I mean, we never get this kind of detail --

CHAIR GRIFFON: Right.

DR. MAURO: -- in these meetings, but now that we are, you know, I think that's my problem.

MS. BEHLING: This is Kathy. I guess the question is when -- my question is NIOSH considered this an overestimate. This person was a furnace operator. At what point would NIOSH have considered the 95th percentile as opposed to the 50th? Just to me, it seems like one of those cases you should have considered the 95th.

I guess, I just -- it's a question of not necessarily for this case, but what's the philosophy? At what point -- and at what -- who -- what worker would you use 95th

percentile?

MR. HINNEFELD: Well, Kathy, as a general rule, when we write a site profile dose model for a AWE, we try to write it sufficiently that it will bound any of the workers and do a one size fits all dose reconstruction, because that's just logistically easier to do that, to make sure you cover everybody.

DR. MAURO: In defense, I mean, of your position in the write-up, they assume that the worker -- one size fits all. I think you spend four hours a day at about 1 foot from a billet.

CHAIR GRIFFON: Three and a half.

DR. MAURO: Three and a half.

MR. HINNEFELD: Three and a half. You've got it there.

CHAIR GRIFFON: Right.

DR. MAURO: And now, so from that perspective, the reality is this guy probably spent most of his time pretty close to the

billet. Now, whether he spent 6 hours --

CHAIR GRIFFON: Right.

DR. MAURO: No. Probably --

CHAIR GRIFFON: Probably not. It's pretty hot.

DR. MAURO: So what I'm getting at is we're in a situation where I would think you step back and look at what you did. Even though -- you know, within the context of a model you have built, I think the fundamental context is favorable. The fact that you would make an assumption that for all workers, we're going to assume that 50 percent of the time is 1 foot from a billet, 50 percent of the time he is 1 foot from a rod.

That alone, putting your guy that close, is itself a conservative assumption. Now, given that that's your base, that that's how you are coming at the problem, you know, then you say to yourself well, now that we have a guy who we know probably spent most of his time next to billets and maybe operating

in an area that had a little bit more radioactivity because it was a furnace, you know, does that conservatism -- is that sort of overarching conservatism built into the matrix?

It is enough to account for the fact that you really haven't tailor to him, you know? So you get --

MR. HINNEFELD: So that's exactly the question.

DR. MAURO: That's the question.

MR. HINNEFELD: And so you said -- now, you said in your summary that the dose during operations was something like 8 rem.

DR. MAURO: Yes.

MR. HINNEFELD: That's the dose. Do we know how many --

DR. MAURO: Oh, the time period? It's in there. We would have to look at it.

MR. HINNEFELD: Okay.

DR. MAURO: Right.

MR. HINNEFELD: Because of --

recall now, this was an AWE and as I understand this -- this is just what she was saying?

DR. MAURO: It's usually five years or whatever.

MR. HINNEFELD: This is Simonds Saw.

CHAIR GRIFFON: 48 to 57.

DR. MAURO: 48 to 56, good guess. All right, 46 years.

MR. HINNEFELD: So for 48 to 57. That was for operational period or was that dose?

MR. FARVER: That was the operations.

DR. MAURO: This time here.

MS. BEHLING: 44 to 69.

DR. MAURO: Okay. So we use different --

MR. HINNEFELD: For the 8 year period there, you've got about a 1 year.

DR. MAURO: Right.

MR. HINNEFELD: Okay. So you've got about a rem a year.

DR. MAURO: A rem a year or 2 rem a year.

MR. HINNEFELD: Or 2.

DR. MAURO: Then you have --

MR. HINNEFELD: Now, this is what -- at Simonds Saw Steel, which, I believe, mainly gives steel during those eight years.

DR. MAURO: That's right. Oh, yes.

MR. HINNEFELD: And it is in the uranium periodically.

DR. MAURO: That's right. That's right.

MR. HINNEFELD: Okay. Now, you compare those numbers to say the annual doses that Fernald received, workers at Fernald that machine, end rolls, and heated --

DR. MAURO: Everything.

MR. HINNEFELD: -- every day all day long and they are about a rem a year. I

mean, the highest they saw at the end of -- you know, well, actually once the ore was gone and they weren't dealing with the ore any more, they were about a rem a year was the highest photon exposure you ever saw at Fernald.

So given those facts and the fact that you have a site that is intermittently using uranium and likely in close proximity and not with a lot of controls, but give those facts, we felt like a rem a year probably would bound even the more highly exposed people from this intermittent uranium job.

And so we felt pretty comfortable with a rem a year.

DR. MAURO: I am completely sympathetic to your situation. But put yourself in our situation. We --

MR. HINNEFELD: Sure.

DR. MAURO: -- are getting exposure matrix. Okay. If you look at the exposure matrix, and we say this is generally

the reason, I'll be the first to say assuming three hours or two and a half, whatever, three and a half hours per day 1 foot away from the billet and 1 foot -- that's pretty good. She is bounded. All right.

And there is my frame of reference now. Within that frame of reference, which is what you are going to apply to everybody that works there, okay. Now, then I asked myself so if I were doing a bunch of people and along comes a guy that I know did something a little different which would put him -- you know, in the end, I would say yes, you're probably right. No one really got more than that.

But at the same time, given the matrix that we have designed and that were within that, I have no choice but to say well, how does -- you know, I have to fact -- if you're going to use it after everybody, there will be some people that within that matrix probably are going to be more toward the higher end than a couple.

And so in a way, it's almost like a Catch-22. I agree that your fundamental nature is claiming favorable. And within that context, which is a one size fits all, I do find that well, in this particular person's situation, I could find some fault where I could easily say no, maybe we should have doubled it.

But then you counter your argument the other way and no ones gets through it every year. I said yes, I have a hard time arguing with that, but I'm not reviewing it within that context. I'm reviewing it on its own merits as an exposure matrix that I'm going to see whether and how well it applies to the person that we are reconstructing the doses for. And so I come up with my findings.

MR. HINNEFELD: Well, I certainly understand why you always did, you know, that's not the issue here. I think in terms of an action to follow after this and what our position would be is that we in all these

instances, when you are trying to reconstruct a dose from less than -- from less information than you would like to have, when you come up with a number, you want to have some sort of feel good that well, this seems to be like in the ballpark and we seem like we're not going to give anybody the short end of the stick by using this, you know, at the back end.

And so when you set up a model, you know, as you said, you know, we set up this really favorable time limit there and then maybe we were not as favorable in everybody's case as we could be in terms of what dose reconstruction.

But we would recognize that as well, you know, we are trying to set these things up appropriately. But having arrived at a number then on the back end, then you look and see well, how does this compare with, you know, what we would expect the experience to be at sort of this kind of site?

In this instance, simply placed at

uranium all day long every day, got doses up around a rem, we wouldn't expect these guys to get a rem of exposure. But since we gave them a rem, let's leave it there and we will bound them to this one size fits all. So that's how we complete these things. That's how we say okay.

CHAIR GRIFFON: Although that was earlier, so you could say --

DR. MAURO: But no wait, let me finish. There's more to the story.

CHAIR GRIFFON: They didn't run all the time.

DR. MAURO: No, there's more to the story.

CHAIR GRIFFON: Yes.

DR. MAURO: Bethlehem Steel that was in exactly the same situation just there on weekends. They assigned 2 mR per hour. The worst possible situation. In that case, they assumed the guy was 2 -- got 2 mR per hour which is -- and you can't get worse than

that.

CHAIR GRIFFON: Right.

DR. MAURO: To an infinite slab. Now, so what do we do? And this is important.

CHAIR GRIFFON: Back to the issues there.

DR. MAURO: Now, we have parity issues here, you know.

CHAIR GRIFFON: Yes.

DR. MAURO: I don't know where we go with this, to tell you the truth. It's a very difficult situation.

MR. HINNEFELD: Well, I mean, I can take it back and get other people and me talking about it and maybe get a better position out of the office, but, you know, right now, this is me sitting here talking.

DR. MAURO: Yes.

MR. HINNEFELD: But again, I think you need -- that's not bad. I mean, that is an issue to concern yourself with.

DR. MAURO: Yes.

MR. HINNEFELD: But I think site to site parity becomes really difficult.

DR. MAURO: Yes.

MR. HINNEFELD: You know, really difficult. And yes, we would like to -- and temporal, you know, parity temporally over the lifetime of this program becomes very difficult.

DR. MAURO: And I agree.

MR. HINNEFELD: So I think that, you know, from our standpoint, we feel like we have a dose model there, whether you want to argue with the dose rate versus time of exposure kind of trade off that was selected and say it should have been a combination of those things, we feel like the end point where we ended up is bounding when we work intermittently.

DR. MAURO: You know, I have to -- maybe it's a packaging problem.

MR. HINNEFELD: Right.

DR. MAURO: You know, when I

review an AWE, I look at the construct. And then I look at whether the fundamental construct is sound. And then I say okay, now let me apply that construct to this case and I'll see if, in fact, you are being a claimant -- site that was claiming failure to this particular worker.

Here is a case, one of the unusual cases where I found the construct valid, because, you know, in a lot of cases I don't, but in this case I found the construct valid, but as it applied to this case it wasn't.

Now, in theory, you could come up with a construct here that was -- I mean, for the same reason Bethlehem Steel. Listen, we're just going to assign everybody to an mR per hour. That is a valid circumstance. 1 foot away in infinite slab, that's the end of story, but you didn't. You decide to refine the construct a little bit.

You know, I guess, if you were to say if this report was listed, we are just

going to assume that everyone at this place got one rem marker. You got one rem per year. Okay. And here is the reason. And you explore all these different strategies that you could review. You could go with the Bethlehem Steel report. Take a look at all the data.

Almost like a concert you go to with TBD-6000 and say in the end, we're not going to try to make it too mechanistic, because once we start getting mechanistic, it sounds like we are trying to be realistic and we are trying to really represent what really happened at this facility.

And once you go down that road, you leave us with no choice but to evaluate it against that construct and its realism and how you apply it. So it's a Catch-22, you now.

CHAIR GRIFFON: Yes.

DR. MAURO: So now, I don't know if you all are following this, but the -- I would say that you have adopted a philosophy

for each site to the best of your ability, you're going to create an exposure matrix. And I think that's the right strategy. You do the best you can to come up with an exposure matrix for that site. That will be one size fits all more or less and apply to all workers.

But then I would -- and I think that's the right strategy to take and not back off and just universally apply 2 mR per hour to everybody. I don't think that's right. I think that you do come up with a construct. But at the same -- well, once you go down that road, which is a scientifically sound road, I think that trying to tailor it to the particular worker is just simply tweaking the construct a little bit, which gives it greater credibility and acceptability to all those concerned.

So in this case, I would -- you know, even though you could make cogent arguments Y-2R per year probably doesn't

really make sense because of the experience, etcetera, etcetera, and for all the reasons we are talking about.

But I think once you build a construct that is your fundamental structure, I think you have got a limiting index. You build that house and you've got to live in it now. And sort of -- and then you have to apply it. And then you have to apply the work there as best you can.

And I think that's the philosophy of how you come out these AWEs. So as far as I'm concerned, I think you are on the right track. I think by building these facility-specific one size fits all is the right way to start. But then once you start the application, I think, if I were doing it, I would say okay, let me think a little bit about this particular guy and whether that -- how that construct plays out for him.

And not back away and say wait a minute, we don't like the construct in the

first place. You see, that's what you just did. You said hey, you know what, really the --

MR. HINNEFELD: But really the construct is a big deal, right.

DR. MAURO: It is. If you build a contract -- if you build a house --

CHAIR GRIFFON: Right.

DR. MAURO: -- you live in it.

MR. HINNEFELD: Yes, that's a good point.

MEMBER MUNN: Is the action item here though fairly straightforward? Is it not just simply requiring a response from --

CHAIR GRIFFON: Yes.

MEMBER MUNN: -- an appropriate -- so basically, we --

CHAIR GRIFFON: The validity of this model for the work.

MEMBER MUNN: -- are discussing here and even if we go the route of saying in this particular case we had better information

about the work conditions of this worker.

CHAIR GRIFFON: Well, I think there is --

MEMBER MUNN: And we will therefore recalculate it and give it a new number.

MR. HINNEFELD: Well, I kind of like John's suggestion. If we can describe, what are the possible avenues here? What do we know? What's the compendium information we now know about the sites that work with this kind of material? And what kind of options does that leave us with here? And what else do we know? And based on that, what are we going to do?

Rather than build a model with maybe a questionable -- and then maybe, you know, based on how we build the model doesn't fit the highly exposed person, and say yes, at the end, well, it still does anyway.

DR. MAURO: Yes, you know, it is so --

MR. HINNEFELD: I would love to do that. You probably don't want me to.

DR. MAURO: Well, no, I mean, I can -- I hear the argument, but then what did you go to the classroom for?

MR. HINNEFELD: Yes, all right.

CHAIR GRIFFON: That covers 122.1 and 3, I think, for both, you know. NIOSH is going to go back and check on that. 122.4 and 5 are those global issues again. And 122.6 is I have transferred to the uranium TIB. Is that TIB-53? I keep forgetting the number on that.

DR. MAURO: That is 53.

CHAIR GRIFFON: Yes. The question now, I'm not even sure that is a TIB-53 issue though, because your response is fairly specific in this one. And I don't know if SC&A had a chance to follow-up on this, but you're basically saying what you were saying before, that this stuff came from Fernald and Hanford and the numbers are consistent with

the tech-based documents from those sites. And therefore that's --

MR. HINNEFELD: And again, here was the additional research that was being done in order to --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- compare the OTIB --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- may, in fact, reveal additional information that may be random or it may not.

CHAIR GRIFFON: Right.

MEMBER MUNN: So NIOSH intends to revisit this.

MR. HINNEFELD: Well, yes. OTIB-53 is an active. It's not well --

CHAIR GRIFFON: All right, well --

MR. HINNEFELD: -- it=s an active issue with us right now.

CHAIR GRIFFON: I guess we will leave it at TIB-53. We understand that. But

it may end up being a --

MEMBER MUNN: So it will have bearing on this.

CHAIR GRIFFON: Yes, it will have bearing on it. It may end up being a site profile question though.

MR. HINNEFELD: Maybe a site profile question.

CHAIR GRIFFON: Right. Rather than a --

MR. HINNEFELD: I mean --

CHAIR GRIFFON: -- resolution.

MR. HINNEFELD: The resolution would be in the Simonds Saw profile.

CHAIR GRIFFON: Right. Okay.

MR. HINNEFELD: I believe there is one of those.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes, I think so.

CHAIR GRIFFON: All right. 122.7 starts the thorium questions, I think. And I don't have -- you might have added a response.

I don't have a NIOSH response.

MEMBER MUNN: No, none there.

CHAIR GRIFFON: I don't have it in this matrix. I guess that might be an action. That might be one you overlooked or whatever.

MR. HINNEFELD: I believe it is -- well, it may be out there for us to provide something. It may be something that I've got in a note from the meeting. I, unfortunately, forgot to bring my notes from our previous meetings and so I don't have anything. I don't know if we did anything on that or not.

CHAIR GRIFFON: I don't have anything written nor in my updated matrix.

MR. HINNEFELD: There were a number of things from the August 20th meeting that I wrote on those notes. I needed to get additional information.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: To get back to the Subcommittee. Some of those got done and not all of them, I don't think.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: So this may be -- I'll have to reconstruct it.

CHAIR GRIFFON: All right. All right. Then 122.8 and .9 are again the standard issues, right, inhalation of and the resuspended residual --

DR. MAURO: One is the resuspend the --

CHAIR GRIFFON: Yes. And ingestion. 122.10, I have no further action, additional cancer was added in March 2008. So I have that item as being closed. Is that --

MR. HINNEFELD: What number was that again?

CHAIR GRIFFON: 122.10. Interview information is not consistent with data used in the DR. And I don't know if you have the whole finding there, John, but I think --

DR. MAURO: I was looking for it, yes.

CHAIR GRIFFON: Yes, I think there

must have been another cancer.

MR. HINNEFELD: There must have been another cancer.

CHAIR GRIFFON: Yes, and it was the other day. So that does close it.

MEMBER MUNN: So we are waiting for something for -- data from DOL as to whether or not this --

MR. HINNEFELD: If the claimant -- I mean, when a claimant brings this stuff to us, we always tell them we can't change that. We will tell DOL that you told us that, but you need to provide your evidence to DOL. And I mean we call it a secondary cancer, if they know what the primary is, is non-reconstructive. And so someone says well, you know, I also had cancer of the stomach or liver. And people already have that information and actually metastasized from the primary, that would not change for those reconstructions.

CHAIR GRIFFON: So as I understand

this, if you after this finding came to your attention, maybe you alerted DOL or --

MR. HINNEFELD: I don't know --

CHAIR GRIFFON: I'm not sure of what happens.

MR. HINNEFELD: -- if we did or not.

CHAIR GRIFFON: Here is what happened. I guess it does raise the question of if something comes out in an interview, even though it's up to the claimant to bring that to DOL really wouldn't NIOSH also need to tell DOL?

MR. HINNEFELD: Okay. We do. We tell DOL that --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- the claimant said they have a condition.

CHAIR GRIFFON: Right. And --

MR. HINNEFELD: We tell the claimant we can't change that, you need to provide your evidence to the Department of

Labor.

CHAIR GRIFFON: Yes, right.

MR. HINNEFELD: Now, once we do those things, then we can consider ourselves done.

CHAIR GRIFFON: Right, right, right.

MR. HINNEFELD: Presumably, if it is verified, it will show back up. DOL will reopen the case and send it back to us to rework.

CHAIR GRIFFON: Okay.

MEMBER MUNN: So our only action here would be that NIOSH confirm that they have --

MR. HINNEFELD: Well, see this is --

MEMBER MUNN: -- a record of notifying DOL.

MR. HINNEFELD: We are long after this. I don't know. I'll have to see. I don't know what kind of a record we would

have. We would have -- you know, they have said this during -- they would have said it during close out interview. We may or may not have indicated at the time in the phone log that we told them.

CHAIR GRIFFON: Right.

MR. HINNEFELD: I don't know what we indicate in the phone log. And that would be the only record we would have had.

MEMBER MUNN: Oh, I mean, notification of DOL, not of the claimant.

MR. HINNEFELD: Oh, I don't know. Well, again, years ago.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Well, this -- yes, the petition might have been later, but I don't know. I don't know.

DR. MAURO: It's in the -- yes.

CHAIR GRIFFON: It would be worth looking at the correspondences to see who said what to whom and when, you know.

MEMBER MUNN: Just to verify that

DOL was notified.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: Well --

MEMBER MUNN: Then this finding goes away.

MR. HINNEFELD: I'm just saying I'm not 100 percent confident that there was a communication, because that would be an email from our PHA to claims persons at the DOL office. And I don't know that that necessarily gets into the claimant's claim box. It would be if the claimant raised this in -- raised this in interview, just in case you hadn't heard it before.

And, you know, in case you didn't -- you know, we have told them that they need to try that. And that was probably the extent of it and we might not hear anything more.

MEMBER MUNN: It should be on DOL's records, right?

MR. HINNEFELD: I can't vouch, I can't speak for their records. I believe our

records are generally better than their's. So I don't know. I think I'm just saying --

CHAIR GRIFFON: Well, it seems like an original important thing.

MR. HINNEFELD: I'm saying that that will be a -- well, years after the fact, that's going to be a very difficult thing to verify.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: And I think if today if you said can I find some examples of us doing that, I think it wouldn't be very long and I would probably be able to get the interviewers to identify some cases that was done. Like even ask the interviewers, if that happens to you today, do you record that in the telephone logs that they raised this during the close-out interview and you told them -- use that to necessarily basically report it in the close-out interview. I don't know if it will be or not.

So what I'm -- all I'm telling us

is if this much later trying to document that that communication happened, would be very difficult. I don't know that we can verify that that communication happened.

CHAIR GRIFFON: Well, I had originally had no further action on this, but I -- it would be --

MR. HINNEFELD: I mean, of course --

CHAIR GRIFFON: Let's take it to the Subcommittee.

MR. HINNEFELD: I'll find out what I can find out. But I'm just telling you, I don't have a lot of expectations that there is going to be this nice crisp trail --

CHAIR GRIFFON: Right, right, right.

MR. HINNEFELD: -- of communication.

DR. MAURO: If it helps at all, when I review these cases and let's say, in this case, there is the entire DOL file and

the entire DOE file.

CHAIR GRIFFON: Yes.

DR. MAURO: It is all there.

CHAIR GRIFFON: And the correspondence.

DR. MAURO: And all the correspondence and medical, all the medical history is there, too.

CHAIR GRIFFON: Yes.

DR. MAURO: All the diagnoses, when the doctor diagnosed what. It's all there. And now, the fact that the interviewee was apparently, I guess, the survivor, I would have to check, but, said no, there was also a coma. It may turn out that might have been in the past disease.

CHAIR GRIFFON: Right.

DR. MAURO: And therefore, it was disregarded and not -- because it was a brain cancer he said.

CHAIR GRIFFON: But it should -- the point is, it should at least be followed-

up on.

DR. MAURO: Yes.

CHAIR GRIFFON: I mean, I think it's important enough to make sure that that system is working for the claimant's behalf.

DR. MAURO: Oh, yes.

CHAIR GRIFFON: You know, they are working with a slew of paperwork and may not know that they had to resubmit something to DOL to make sure that -- you know, just get their report being rejected. They won't, you know --

DR. MAURO: Yes.

CHAIR GRIFFON: That's the worst case, I guess, you know.

MR. KATZ: But to interact, so that's a lot, too, so sort of separate from that, there are a lot of cases I have seen over the past two years with our ombudsman, Denise, where she has identified with them perhaps even ones that is in the adjudication phase with DOL, they will come to Denise and

say -- and Denise laughs and questions and finds out that, in fact, there was another cancer that just never got raised and so on. And she will send them back to DOL.

CHAIR GRIFFON: I think --

MR. KATZ: And she will get the case reopened.

CHAIR GRIFFON: And I think they got all the medical records. They've got everything, you know, and they might not have got everything or whatever.

MR. KATZ: And DOL doesn't always interpret the medical files correctly as well. I mean, it happens.

CHAIR GRIFFON: Yes.

MR. KATZ: In many different ways.

CHAIR GRIFFON: Right.

MR. KATZ: Well, I think it's worth following up on.

MR. HINNEFELD: We have -- we actually do have a note in the telephone log for this case.

CHAIR GRIFFON: Okay. The system works.

MR. HINNEFELD: But it's not completely definitive. It identifies that the claimant's concern was that her father also had colon cancer and the interviewer advised her that we do not have a pathology report on that and DOL cannot accept it. Because DOL requires medical evidence, they require evidence of the medical condition.

And she said that she understands that, but she knows he had it. So it doesn't even say for sure, you know, well, I have that. I submitted it or she may -- it doesn't say for sure that I can't get the medical files, because it was too long ago, which we hear on occasion.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And so then the interviewer says I advised her that she can call the Cleveland DOL on this. So at least the claimant was advised to go to the

Department of Labor. Now, whether we made a communication to the Department of Labor, that I don't know that I can -- that's what happened. I don't know.

CHAIR GRIFFON: Well, then given the response here though, it's kind of interesting, because it says additional cancer was added. So that must have been correct.

MR. HINNEFELD: Well, that must be in something that I don't have.

CHAIR GRIFFON: Unless it was another type of cancer, it wasn't the colon, but --

MR. HINNEFELD: No, it did come back to us.

CHAIR GRIFFON: So the colon did-- she might have gone back to her physician.

MR. HINNEFELD: Well, we will know.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: If it came back, we will know what it came back for.

MEMBER MUNN: Well, wait. I just -- what you just said doesn't -- perhaps my note is incorrect. You said it says here there was an added cancer and my note says NIOSH did not have the authority to add cancer diagnoses.

MR. HINNEFELD: We are working from different matrices.

MEMBER MUNN: Okay.

MR. HINNEFELD: See you're working from the one that I sent.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes.

MR. HINNEFELD: Mark is working from his.

CHAIR GRIFFON: No, this -- mine says that what you are saying, Wanda, but in the resolution it says an additional cancer was added. Now, it doesn't say -- maybe I should specify by DOL in March 2000, you know, just to be clear.

MR. HINNEFELD: Yes.

MR. HINNEFELD: But again, Scott has got the referral here. They had it no carcinoma of the ilium and large bowel.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: So DOL did get the evidence, did add it and then so the case came back to us.

DR. MAURO: And it has --

MR. HINNEFELD: Well, we can tell you. We will tell you. We cannot tell you whether it is finally adjudicated, but we can tell you whether we sent another dose reconstruction by DOL. Sitting here, I don't think we can tell you whether it is finally adjudicated.

MEMBER MUNN: It should be the end of this.

DR. MAURO: Of this, on this, yes. I agree. Our final with DOL.

CHAIR GRIFFON: Right. No further action.

MEMBER MUNN: Yes.

DR. MAURO: October of this year.

MR. HINNEFELD: Yes. So there was a recommended decision, it may or may not be finally adjudicated.

DR. MAURO: That closes this.

CHAIR GRIFFON: All right. And on that note, I think it's time for a break.

MEMBER MUNN: Absolutely.

(Whereupon, the above-entitled matter went off the record at 2:40 p.m. and resumed at 2:50 p.m.)

CHAIR GRIFFON: Okay. All right. Let's just start on 123.1. This is a --

MR. HINNEFELD: Fission product.

CHAIR GRIFFON: Yes, this is a Hanford case, yes.

MR. HINNEFELD: Apparently.

CHAIR GRIFFON: This was the fission product one. We have -- I have a referral to NIOSH, TIB-54. NIOSH looking at TIB-54 as it applies to whole body counting is my specific comment or resolution.

MR. HINNEFELD: Okay. I think that's true.

MR. SIEBERT: Tate and Liz and I have talked about it.

CHAIR GRIFFON: So should that be part, should that be referred to the Procedure's Group or not necessarily? Does that stay here? Wanda wants it. She's saying -- for those on the phone and can't see Wanda. She is motioning that yes, bring it on.

MEMBER MUNN: I think you have misinterpreted my intent.

MR. HINNEFELD: Well, I think that it sounds like we have -- you know, if what we have provided here now, I don't know, we actually provided this before. Yes, we provided it on May 30th. So if that's not sufficiently clear, has there been something else, you know, further elucidated on that, so we know what else to provide?

MR. FARVER: This is --

CHAIR GRIFFON: I wish I

remembered right now.

MR. HINNEFELD: It is. That's my guess. It is. It's all pre TIB-54.

CHAIR GRIFFON: Oh, okay.

DR. MAURO: That was my guess.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes.

MEMBER MUNN: But nevertheless, pretty comprehensive.

MR. FARVER: I believe the question always comes into account where does the radionuclide chooser that is used, you know, that accounts for, in worst case, radionuclide we will say, but it doesn't account for the other nuclides not considered.

CHAIR GRIFFON: I see it.

DR. MAURO: In other words, you've got gross gamma in the urine. You've got a --

MR. FARVER: You've talking in vivo, right?

DR. MAURO: The whole body count, okay. They only look at the one radionuclide?

MR. FARVER: They look at the one with the, let's see, the highest MDA.

MR. SIEBERT: Take the MDA into account and that determines which would give the largest dose to the organ.

DR. MAURO: The organ.

MR. SIEBERT: Right. So they assign that one across the board.

MR. HINNEFELD: So is this a case where B

CHAIR GRIFFON: Okay. So it's all less than detectable, right?

MR. SIEBERT: Yes, right. Misdosed.

CHAIR GRIFFON: Misdosed, oh, okay.

MEMBER MUNN: But again, this goes back to the question which keeps arising in all our fora which is, in this particular case that we are looking at right here, would any other approach be more informative with respect to the dose to the claimant or would

any other dose added from any other known or unknown or imaginary sources significantly affect the outcome for the claimant?

That's really the bottom line question. Is this sufficient? Unless there is reason to believe that there were extraordinary exposures to other less active radionuclides, those would be very difficult to take a position that there would be a major impact on dose.

CHAIR GRIFFON: I mean, Doug, you should look at the explanation. I mean, I'm sure you did, but I guess this is -- yes, it's kind of your theory is that if you are selecting the one with the highest MDA --

MR. FARVER: Oh, okay.

CHAIR GRIFFON: If you selected one of the ones -- if you did it equally in other parts, you know, you would have seen one of those at a lower level, so your Ce-144 goes down as well. And the MDs are so far apart that you got it. You bounded it, right?

MR. SIEBERT: That's what -- if I remember correctly, we looked at this.

CHAIR GRIFFON: Yes.

MR. SIEBERT: And said yes, if we projected out other radionuclides from that Ce-144 --

CHAIR GRIFFON: Right.

MR. SIEBERT: -- it would have been shining out and you would have seen it.

CHAIR GRIFFON: Right.

MR. SIEBERT: Anything that we did other than that, would have reduced the dose.

CHAIR GRIFFON: Right.

MR. SIEBERT: And took those into account.

MEMBER MUNN: I think Tammy has something that counts.

MR. FARVER: Does OTIB-54 support this?

MR. SIEBERT: I believe that's where we -- I don't know off the top of my head.

CHAIR GRIFFON: That's the question.

MR. SIEBERT: I think yes.

CHAIR GRIFFON: That's where we ended up the last time, I think, right?

MR. SIEBERT: Right, yes. And that's -- I think that's something we are looking at with the support.

CHAIR GRIFFON: Like we wanted to see the background to this and we said yes, it's probably going to be in the TIB-54 discussion.

MR. FARVER: Because it's going to come up in -- on TIB-58 again.

MEMBER MUNN: Yes, and again.

MR. SIEBERT: I keep putting question marks, that's why I want to read it.

CHAIR GRIFFON: Well, I'm going to leave that resolution the same. And if it's not covered in TIB-54, we will have to make sure we bring it back here independently. But I'm assuming it will come up in that dialogue,

right? So NIOSH looking at TIB-54 as opposed to whole body counting.

MEMBER MUNN: For reasonableness.

CHAIR GRIFFON: Does that mean transfer to the Procedure's Work Group then?

MEMBER MUNN: No.

CHAIR GRIFFON: Wanda, does it?

MR. SIEBERT: Yes, it does.

CHAIR GRIFFON: Transfer to Procedure's Work Group. 124.1, wow, only one finding on that one. That's good.

MR. SIEBERT: We just pick one, the worst case.

CHAIR GRIFFON: This is another.

DR. MAURO: Well, before we -- I'm sorry.

CHAIR GRIFFON: Go ahead, go ahead. Yes.

DR. MAURO: I just want to get it clear in my head. You take a whole body count and chest count --

CHAIR GRIFFON: Yes.

DR. MAURO: -- spectrum. One of the spikes in there maybe won't --

CHAIR GRIFFON: You don't get a spectrum.

DR. MAURO: You get it a less than, there we go.

(Simultaneous speaking)

CHAIR GRIFFON: That's the point.

DR. MAURO: Okay. So therefore, you are given the less than and let's say it turns out that there is a whole bunch of radionuclides there, but they are all less than. Okay. All right. Okay. So therefore, it's -- you know, you get your background spike with this Cerium-144, but you really can't pick out any spike for any one particular fission product. And there may be a lot of fission products, such as --

CHAIR GRIFFON: Yes, right.

DR. MAURO: -- OTIB-54. Now, what I'm understanding here is that, okay, what we are going to do is assume that there is some

radionuclides there and that they are with any 106 and Cerium-134. Was that what they are assuming?

MR. HINNEFELD: Cerium-144.

DR. MAURO: Cerium-144 dose. And so you say, okay, let's assume that yes, he does have some body burden.

CHAIR GRIFFON: At the MD.

DR. MAURO: At the MD and for those two radionuclides. So therefore, you are assigning the highest possible dose this guy possibly could have based on the whole body count for those two radionuclides for one reason.

But now, is it possible that there may be a number of other radionuclides that are there that are also below the limits of protection? I think this is the issue here.

MR. HINNEFELD: I believe our response --

DR. MAURO: And that would --

MR. HINNEFELD: -- is based on

some understanding of the relative portion of the radionuclides process.

DR. MAURO: Okay. So --

MR. HINNEFELD: So if, in fact, the one we chose was just at the MDA and the others were there in their proportion --

DR. MAURO: You can't --

MR. HINNEFELD: -- they would be easily detectable on the in vivo.

DR. MAURO: Oh, you would see them. There would be all --

MR. HINNEFELD: They have lower -- the lower, the more sensitive. I believe that's the basis here.

MR. SIEBERT: It ties a lot of things together. It's the MDAs, it's the abundances in the area.

DR. MAURO: Right.

MR. HINNEFELD: And it's the dose delivered.

CHAIR GRIFFON: Several factors going on all at once.

DR. MAURO: And that's why I get confused.

MR. SIEBERT: Yes, okay. I got it.

MR. FARVER: Which is okay. And should that be documented somewhere?

(Simultaneous speaking)

MR. HINNEFELD: The research from TIB-54, we hope will define that.

DR. MAURO: Oh, 54 should show up, because you have a spectrum.

MR. HINNEFELD: We'll see.

CHAIR GRIFFON: 124.1, this is also a Hanford Case. I have SC&A will review the new DR tool, was my last. Now, you don't -- you guys don't have this in the matrix, but this is in -- from the August 20th is what I had.

MR. FARVER: Yes, I have that.

CHAIR GRIFFON: Yes, and that's in -- yes. And then on your separate sheet, I see finding response action closed you say.

So you must have reviewed the tool.

MR. FARVER: Yes.

CHAIR GRIFFON: And that one page that you were --

MR. FARVER: Now, I can look for the email for that.

CHAIR GRIFFON: Yes, here is Doug's response while he is looking for it says "Reviewed the Hanford Workbook 2.31 and verified the tool. Appropriate count as zeros for misdose determination." I've got one page here.

MR. FARVER: Yes, I did do that.

CHAIR GRIFFON: Dated June 18, 2008. I think the file said June 10th, but all right.

MR. FARVER: Okay.

CHAIR GRIFFON: Do you have that? I don't want to put words in your mouth. I think this is your document.

MR. FARVER: I'm sure it is.

MS. BEHLING: Yes, that's correct.

CHAIR GRIFFON: Everybody has got Doug's document, but Doug.

MS. BEHLING: Yes.

CHAIR GRIFFON: I know how you feel.

MEMBER MUNN: As long as it says closed.

MR. FARVER: Well, maybe we should reopen it. I know I looked at it. And if I sent an email, someone has that email, then I'm sure I --

CHAIR GRIFFON: Well, you had the document before open, so --

MR. FARVER: I had the actions.

CHAIR GRIFFON: Yes, the actions, that's what they are the actions.

MR. FARVER: Yes.

CHAIR GRIFFON: The top action 124.1.

MR. FARVER: Oh, reviewed the workbook.

CHAIR GRIFFON: Yes.

MR. FARVER: Verified the tool. Oh, I did do that.

CHAIR GRIFFON: Yes.

MR. FARVER: Closed.

CHAIR GRIFFON: Yes, closed. All right. That's the one, yes. So I'm going to put SC&A reviewed and agrees. Okay. 124.2, I also have it's the same thing, that you reviewed the tool.

MR. FARVER: Yes.

CHAIR GRIFFON: And for .3, the same thing.

MR. FARVER: Correct.

CHAIR GRIFFON: So these all carry through.

MR. SIEBERT: Actually, .3 is the fission product.

CHAIR GRIFFON: Oh, is it? Maybe I got carried -- all fission products. Oh, yes, I was getting carried away with the committee. Okay. So yes, 124.3 is the fission product question back to 124.1.

MR. FARVER: 123.1.

CHAIR GRIFFON: I'm sorry, 123.1. Is that fission products, is it a whole body counting issue though or is it --

MR. SIEBERT: Yes.

CHAIR GRIFFON: -- different? It's still whole body counting?

MR. SIEBERT: Right. If the whole use of the sheets are methodology.

CHAIR GRIFFON: Okay. All right. Let me just catch up, so I have this.

MR. SIEBERT: Using the single most common tables.

CHAIR GRIFFON: So that's being sent to your group, Wanda. All right. 124.4, NIOSH & SC&A agrees no further action is what I have.

MR. FARVER: Correct.

MEMBER MUNN: 123.1, yes, the OTIB-54.

CHAIR GRIFFON: Yes, OTIB-54.

MEMBER MUNN: Right. That's

Procedure's.

CHAIR GRIFFON: Right.

MEMBER MUNN: Thank you so much.

CHAIR GRIFFON: 125.1, we're rolling right along here. We're on a roll.

CHAIR GRIFFON: Now, I have SC&A cannot find the 1984 dose. NIOSH will follow-up on this in the summation doses.

MEMBER MUNN: Okay.

CHAIR GRIFFON: Again, I didn't forward this matrix around.

MR. HINNEFELD: I am having to reopen mine.

CHAIR GRIFFON: Nothing after that?

MR. HINNEFELD: Nothing after the matrix.

MEMBER MUNN: Well, that's not a response.

MR. FARVER: It is acceptable. Do you want to look up to 1984 dose in the IREP file? There is none for 1984.

CHAIR GRIFFON: Right. That's --

MR. FARVER: In fact, that was what it came down to.

MEMBER MUNN: So that's the real point.

CHAIR GRIFFON: And then I have that NIOSH will follow-up on this and the summation of the doses.

MR. HINNEFELD: Well, right now, I'm having trouble finding that one.

CHAIR GRIFFON: So that's okay.

MEMBER MUNN: This again is the summation. Was it an 84 event? I mean, I guess, my question is the event is the same year that you are missing the report? Is that the point of this?

MR. FARVER: I'm not sure which one you are looking at, Wanda.

MEMBER MUNN: 124.4.

CHAIR GRIFFON: No, we're on 125.1.

MR. FARVER: 125.

MEMBER MUNN: Thank you.

CHAIR GRIFFON: There is no instrument, no, okay. I was going to say -- sorry.

MEMBER MUNN: Thank you.

CHAIR GRIFFON: But 124.4 was closed. We're on 125.1. And I have NIOSH to follow-up and, you know, we can just carry it forward.

MR. HINNEFELD: The number we're on again is?

CHAIR GRIFFON: 125.1.

MR. HINNEFELD: 125.1.

MR. FARVER: If there is an IREP file, it starts off with like SE something something and then the Social Security Number?

CHAIR GRIFFON: Yes, yes.

MR. FARVER: And in that file, there did not appear to be a 1984 dose.

CHAIR GRIFFON: Okay. I don't know if we have to get an answer real-time either, you know.

MR. HINNEFELD: Okay. We -- what was the number of this finding?

CHAIR GRIFFON: 125.1. It sounds like a pretty simply one to follow-up on, so, you know.

MR. FARVER: I know sometimes they will cut and paste the IREP files together.

CHAIR GRIFFON: Yes, it could have been.

MR. FARVER: And sometimes --

CHAIR GRIFFON: Yes.

MR. FARVER: Entries and sometimes there is omissions.

MR. SIEBERT: Well, it is referring to the 121 in there, which is actually listed. In the RFP it's 1948 instead of 1984.

MR. FARVER: Oh.

MR. SIEBERT: And I think the dose reconstruction was seeing that as being the 1984, but I'll check on that.

MR. FARVER: Okay.

CHAIR GRIFFON: Okay. 125.2 I have NIOSH and SC&A agree.

MR. FARVER: Yes, we do that occasionally.

CHAIR GRIFFON: So the NIOSH response is fine on that. Okay. 125.3, SC&A to provide IMBA runs for the clarification of concern

MR. SIEBERT: That's on the seventh set action sheet as well.

CHAIR GRIFFON: Yes, and SC&A concurs with NIOSH response is what I see.

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MR. FARVER: Original start IMBA file was corrupt. The SC&A IMBA file, the support finding was created to agree with and verify method use in the error report crank intake using half of the MDA.

CHAIR GRIFFON: Okay. So you relooked at that on the -- well, anyway.

MR. FARVER: We basically --

CHAIR GRIFFON: You looked at those and you --

MR. FARVER: We can't agree with them without really saying to agree.

CHAIR GRIFFON: Yes. Okay. I'm trying to figure out why we didn't agree the last time. Well, that's all right. I'll just take it. The finding is closed. All right. 125.4, NIOSH will provide follow-up information on why this dose is not included, even though small -- even though it was a small dose. Yes, so these are pretty small doses we are talking about, but the question is they were probably above the threshold that should have been included, I guess, is what SC&A is contending.

MR. FARVER: Yes.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: About a millirem.

CHAIR GRIFFON: Yes. Again, I think I'm getting -- I'm capturing a good update on this matrix, so I'll make sure I

forward the whole updated matrix out to you soon, that way, Stu, if you can add this to your notes, that's probably one to follow-up on.

MR. HINNEFELD: Which one?

CHAIR GRIFFON: 125.4. And the very small doses were not included. 125.5, NIOSH has developed TIB-54, sounds familiar.

MR. FARVER: Yes, but this was also a second issue where the DR states it is Type S, when it is actually an intake of Type F.

CHAIR GRIFFON: Yes.

MEMBER MUNN: F or S?

CHAIR GRIFFON: Yes.

MR. FARVER: The DR states that it's an S, but it's -- the actual calculations are F.

CHAIR GRIFFON: Right.

MEMBER MUNN: Oh.

MR. SIEBERT: It states in the dose reconstruction report.

MR. FARVER: It's an S.

MR. SIEBERT: Okay. So it just may be a typo.

MR. FARVER: It may be a typo.

CHAIR GRIFFON: Right. Okay. Well, I think I have down here, maybe we might want to double check this, but I have down here that SC&A and NIOSH agree that there was a quality control problem that should have probably been captured in the peer review process. I think that's what you are talking about. The S versus F, but I don't see any -- I think we should clarify that. I think it was -- it might have been a typo, not --

MR. FARVER: Oh, not a calculation.

CHAIR GRIFFON: -- a calculation.

MR. FARVER: No, no, no, it's not that it's a calculation.

CHAIR GRIFFON: Okay. Right, right.

MR. FARVER: It was different.

CHAIR GRIFFON: Right.

MR. FARVER: Pointed out as being different.

CHAIR GRIFFON: I think we have got that.

MR. FARVER: Right.

CHAIR GRIFFON: And NIOSH agreed with that.

MR. FARVER: Okay.

CHAIR GRIFFON: And there is no further action on it. It's just a typo, yes.

MR. FARVER: Right. Because I also have after it, you know, key weight concern and that's one you have discussed.

CHAIR GRIFFON: Okay. So I'm just trying to keep current. 125.6, this case will require rework under PER review and NIOSH will reexamine the fission product during the rework. So that's -- this is one of those again that it is the whole 125 case.

MR. FARVER: Yes, there is some other fission --

CHAIR GRIFFON: We might have to deal with how to -- yes. There's other things in here?

MR. FARVER: Yes, it has to do with his work location and certain areas.

CHAIR GRIFFON: Okay. Okay. So it's beyond just the fission product stuff or it is --

MR. FARVER: The fission products.

CHAIR GRIFFON: Oh.

MR. FARVER: It also has to do with where he worked.

CHAIR GRIFFON: Okay. But it might be beyond the --

MR. FARVER: Some are monitored dose involved.

CHAIR GRIFFON: I mean, if it's a where he worked question and things like that, you are also talking not TBD, right, in that case? Because I'm assuming you might have to use different proportions of --

MR. FARVER: Yes.

CHAIR GRIFFON: -- radionuclides depending on locations.

MR. FARVER: On the 54?

CHAIR GRIFFON: 54 is -- erase all mistakes potentially.

DR. MAURO: I think it's based on the kind of reactor.

CHAIR GRIFFON: Yes.

DR. MAURO: But it doesn't change where you are in the building.

MR. SIEBERT: No, I think --

CHAIR GRIFFON: No, right.

MR. SIEBERT: -- when you are close to the material after removal from the reactor.

DR. MAURO: Okay.

CHAIR GRIFFON: Right, right, right.

DR. MAURO: Okay. Got it.

MR. SIEBERT: But there were situations in 54.

DR. MAURO: Okay.

MR. SIEBERT: And there were also different kinds of reactors, too, if I remember.

DR. MAURO: Yes, but they all --

MR. SIEBERT: A couple dimensions it was.

DR. MAURO: Different types of facilities.

MR. SIEBERT: Facilities and also where in the fuel cycle you are.

DR. MAURO: Right..

MR. SIEBERT: Okay.

MEMBER MUNN: 125.6 we're doing, right?

CHAIR GRIFFON: Yes.

MEMBER MUNN: Correct?

MR. SIEBERT: Yes.

DR. MAURO: Yes.

MEMBER MUNN: The issue was unmonitored internal dose.

CHAIR GRIFFON: Yes, including fission product dose, I guess. I guess my

question was, was it a TIB-54 question or is it a --

MR. FARVER: No, this is not.

MEMBER MUNN: No.

CHAIR GRIFFON: Right.

MEMBER MUNN: No.

CHAIR GRIFFON: I didn't think so, that's why I was -- but it says this case will require rework under the PER review. NIOSH will reexamine the fission product dose during the rework. Oh, it's requiring rework probably for Super S, right?

MR. FARVER: Right, yes.

MR. SIEBERT: And there was a change in the TBD B

CHAIR GRIFFON: Yes, okay.

MR. SIEBERT: -- when this was done.

CHAIR GRIFFON: Right.

MR. SIEBERT: So now, if we would apply it, it would probably go way up.

CHAIR GRIFFON: So that's what

that -- that's what my --

MR. SIEBERT: That's just saying that we are --

CHAIR GRIFFON: -- notation means, yes.

MR. SIEBERT: Yes.

MR. FARVER: I mean, our concern was there was no unmonitored fission product dose for 47 to 48 or any unmonitored dose from 64 to 84.

CHAIR GRIFFON: Yes. And my -- and this response is saying they are going to pick that up when they do the PER review.

MR. FARVER: Okay.

CHAIR GRIFFON: Yes.

MR. FARVER: The high fired.

CHAIR GRIFFON: I guess the question would be, you know, the age old question here is, is it likely to affect the case or can we close the finding out or, you know? And I don't know if we can change this one.

MR. HINNEFELD: Well, based on what I thought beforehand, you could close the finding, but you would still want to track this case.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Just in case it's going to be in the report. Because the issue here, I believe, was corrected by the change in the site profile. The dose and the guidance, isn't that what this says, that it was done in accordance to the guidance at the time? The guidance is now different.

CHAIR GRIFFON: Right. I think so, yes.

MR. HINNEFELD: And so we have corrected the evolution of findings. Now, of course, on the other hand --

CHAIR GRIFFON: Although I'm not sure --

MR. HINNEFELD: -- whether or not the correction we -- what we changed really, you know, settles your uneasiness about what

is done in this case is the issue.

CHAIR GRIFFON: Yes.

DR. MAURO: A couple of -- I mean, from what I read here, there are a couple of aspects where it's misdosed, I guess, where it should have been zeros.

MR. FARVER: There was a little confusion about what the basis was for the assumptions used in the DR. Were they working in a reactor area, a separations area.

CHAIR GRIFFON: Yes. Just the tool.

MR. FARVER: It wasn't very clear.

CHAIR GRIFFON: And the overlap of that, yes.

MR. FARVER: So that was part of it.

CHAIR GRIFFON: Okay.

MEMBER MUNN: Well, is it the fact that the assumption made was that he was in the 100 area all the time? Isn't that pretty much -- well, why?

MR. FARVER: It must be.

MEMBER MUNN: I'm conflicted on that.

MR. HINNEFELD: I think what the issue here is -- I think the issue is going to be whatever change was made to the site profile, does that resolve this issue?

CHAIR GRIFFON: Right, yes.

MR. HINNEFELD: It sounds like maybe not.

CHAIR GRIFFON: Right.

MR. HINNEFELD: I don't know where we go from here.

CHAIR GRIFFON: I know. I'm not sure we -- I think it's going to be one of those that is flagged once we --

MR. HINNEFELD: Do you want me to look at this again?

CHAIR GRIFFON: It sounds like a winner.

MR. FARVER: Yes, you might want to sharpen the pencil.

MR. HINNEFELD: When you are doing that, Doug, maybe look at since our response talked about well, it was done in accordance with the guidance and this time it's now different, you might check and see whether the current change in the guidance, like I said, settles your uneasiness about how this was done or it still remains.

You know, I mean, something is now done differently, but that's not really fully explained on why the way we do it now is the right way to do it.

MR. FARVER: Yes, because the first line of our review says, "We are unable to determine the exact basis for the intakes that were assigned."

MR. HINNEFELD: Yes. And there is a bit on our response.

MR. FARVER: Right.

CHAIR GRIFFON: So I've got SC&A will review their finding compared to the currently available TBD. Is that --

MR. FARVER: Yes, and I will relook at their response and all that. I'll just review the whole finding.

CHAIR GRIFFON: Okay.

MR. FARVER: It's been so long ago, I don't actually remember it all.

CHAIR GRIFFON: 125.7, NIOSH and SC&A agree.

MR. FARVER: We agreed.

CHAIR GRIFFON: 125.8, NIOSH agrees, case is being reworked under the PER review. So this is another one that they agree on the finding and somehow we'll work it out, so the case gets tracked, every finding. I have more on this, but it says "Records will be obtained and considered prior to this evaluation."

DOL did apparently research to determine employment at NTS, so there must be some NTS records now available or something.

MR. HINNEFELD: It sounds like it, yes.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: In fact, our response even says that.

CHAIR GRIFFON: Yes, yes, I see that.

MR. HINNEFELD: We have that NTS report.

CHAIR GRIFFON: It was not included.

MR. HINNEFELD: It didn't verify the employment record.

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: So it may be what we have was the report from Hanford from MPR, that Hanford sent over was the Hanford case.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes. So I mean, on occasion that's what will happen. There's always the exposure record, you know, includes their record. So they may have it. You know, they may, in fact, provide us with an NTS report. But once we have dose reconstruction

where NTS is part of verifying the -- we would request NTS for exposure. That sounds like what happened. I don't know. I can't figure out why else we would have had that, I mean, that we didn't include.

CHAIR GRIFFON: Then 125.9, I think we can move on to that, at this point.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: On this one, I also have NIOSH to address was all the data obtained? Why wasn't this notice in peer review? Is chronic bounding? That's what I have from the last meeting.

MR. FARVER: Correct.

MR. HINNEFELD: I have that here. I guess I need to check and see.

MR. FARVER: Yes, yes, yes, I think that's --

CHAIR GRIFFON: Yes. I don't want to guess at that one.

MEMBER MUNN: 125.9?

CHAIR GRIFFON: It's a remaining

action.

MR. HINNEFELD: We're going to go back and -- you know, where we are.

CHAIR GRIFFON: Yes.

MR. FARVER: Right. And another part of that was that about incidents. Family of the employee was involved in maybe four incidents. It looks like some airborne, elevated airborne, positive nasal smears and then a high dose rate and all these bioassay says bioassay requested.

CHAIR GRIFFON: All right. And the last, yes, thing NIOSH's response says therefore, any plutonium intakes resulting, in other words, from any of the four incidents would have been less than those assigned, based on the bioassay results. And I think that was a question is the chronic assumption bounding? I guess, okay. It's one of those ones that we commonly do, right?

MR. HINNEFELD: Right.

CHAIR GRIFFON: You want to test

whether the incidents are bounded by that.

MR. FARVER: And the other question is three of those incidents were in 1957 and each of those says that bioassay was requested.

CHAIR GRIFFON: Yes, yes.

MR. FARVER: There's only one sample listed in the results for 1957.

CHAIR GRIFFON: Right, right. And that's why we have that question, do you have all the results.

MR. FARVER: Correct.

CHAIR GRIFFON: Yes. Okay. 126.1, a Hanford and INEL case. SC&A agrees with NIOSH response, no further action.

MR. FARVER: Correct.

CHAIR GRIFFON: 126.2, no further action for this case, further discussion needed on -- well, I said no further action. Then I say further discussion is needed on TIB-2. And its appropriateness and certainly that it is bounding. I'm not sure why that is

in there. Maybe it was no further action for this case, but that's the general. Did we review TIB-2?

DR. MAURO: Yes, the only problem we have with TIB-2 is that -- that's just the fall upper end intake.

CHAIR GRIFFON: Right, right, right.

DR. MAURO: It would have a certain set.

CHAIR GRIFFON: Oh, yes, where the TIB-2 is bounding of this certain set.

DR. MAURO: Now, the only time you found that there might be a problem with TIB-2 being bounding had to do with when we were dealing with raffinates, like raffinates at Fernald. And I have to say that in my conversations with Hans and Kathy, well, Kathy is still on-line, and RJ, we found TIB-2 to be extremely bounding for the purpose of denial when you don't have internal use.

Except when you are dealing with

thorium raffinates that, we found that it is very possible that you could actually have exposures greater than those associated with the default TIB-2. That's my recollection of TIB-2.

CHAIR GRIFFON: Yes.

DR. MAURO: In this case, we are applying it to worker at Hanford.

CHAIR GRIFFON: At INEL.

DR. MAURO: At INEL. I have to say I don't have any recollection of circumstance at INEL that we -- that would somehow defeat the use of TIB-2. INEL I think is mainly reactor problems, same kind of problems you would have in some unusual circumstance.

CHAIR GRIFFON: I think I asked this question of whether this individual was at CPP.

DR. MAURO: Oh, yes, you did.

CHAIR GRIFFON: That would be my only concern.

DR. MAURO: That's your question.

CHAIR GRIFFON: Yes.

DR. MAURO: And CPP --

CHAIR GRIFFON: That would be the only place where it was possible even, you know.

DR. MAURO: Had the --

CHAIR GRIFFON: And NIOSH does note that they were never even sampled for uranium and if they were in that area, you know. It seems unlikely that they wouldn't have cut sample for uranium, you know, if they were in the CPP area.

MEMBER MUNN: That was the work records of the current --

CHAIR GRIFFON: Yes, and I thought we looked at that. I thought we did see that. It did say that --

DR. MAURO: CPP was a problem, mainly if you had, I think, iodine. I mean, I remember the processing spectrum and the big releases that were the iodine releases.

MEMBER MUNN: Yes.

DR. MAURO: I mean, that was when you say is there some aberrant situation where even TDB, even TIB-2 would not do the trick.

MEMBER MUNN: Yes.

DR. MAURO: See the reason we came up with this critique of TIB-2 was the unique situations associated with raffinates.

MEMBER MUNN: Yes, yes.

DR. MAURO: Whether or not it would extend to the chem plant, I would say even -- I would say unlikely, except for the iodine problem. That occurs when you have the raw elements.

CHAIR GRIFFON: Right.

MEMBER MUNN: Which would -- in any case, this was the badge worker.

DR. MAURO: Yes.

MEMBER MUNN: This was the badge worker, right?

CHAIR GRIFFON: Yes, I think that's where I got raised.

DR. MAURO: Yes.

CHAIR GRIFFON: You know, just to make sure. It's likely that it was bounding, but a unique work history, I think, is why we put that comment in there, you know.

DR. MAURO: In the '50s and the chem plant sure was a unique work history.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes, but they certainly would have been badged, too.

DR. MAURO: Oh, yes, but I guess we're talking internal.

MEMBER MUNN: Well, yes.

CHAIR GRIFFON: NIOSH is another story.

MR. FARVER: The original finding had to do with the selection of non-uranium sites/reactor sites.

CHAIR GRIFFON: Right.

MR. FARVER: We thought that it should have been a uranium site/reactor site. You know, this is the OTIB-2 deal. And

that's why NIOSH explains why it --

CHAIR GRIFFON: Oh, okay.

MR. FARVER: -- why they chose what they chose.

CHAIR GRIFFON: Right. Okay.

MR. FARVER: Which is okay.

DR. MAURO: Which is different than what we are talking.

MR. FARVER: Yes.

DR. MAURO: We're just saying it's not so much a matter of whether OTIB-2 applies. What I suspect --

MR. HINNEFELD: The TIB source.

MR. FARVER: Which button you click.

MEMBER MUNN: But we still agree.

CHAIR GRIFFON: But then beyond that, we have went in -- we did add that is it bounding for certain? You know, that was the question of the work history.

MR. HINNEFELD: Well, you may have also asked, because there is apparently a

sampling record on this person, because he was never sampled for uranium, so --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- in the sampling record, why did you use TIB-2?

CHAIR GRIFFON: Right, right, right.

MR. HINNEFELD: I mean, that may have been what they were talking about.

CHAIR GRIFFON: It could have been, yes, I know. We have to look back at the transcript.

DR. MAURO: Sure. Well, it was denied. In TIB-2 we probably -- you know, if there was a sampling record, we could probably quickly determine whether or not it could still be off the charts bounding to the guy.

CHAIR GRIFFON: Yes.

DR. MAURO: And if it was, end of story.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: So this is not

closed then?

CHAIR GRIFFON: I guess --

MEMBER MUNN: We still have an outstanding question which is being kicked around the table here.

CHAIR GRIFFON: Yes, I guess we have an outstanding question. I mean, I did have no further action on this case, but then I have contradictory statements in here really. I thought we still had an outstanding question about it. I think we should at least look into that question. Is the TIB-2 bounding for the circumstances or the likely circumstances?

DR. MAURO: And you have a lot of information. Apparently, there was --

CHAIR GRIFFON: Does anybody have the work history of this guy? You're looking ahead or something? 126, right. What he did at INEL.

MEMBER MUNN: 126.

MR. SIEBERT: The employment

history says the INEL has kept radiation records.

CHAIR GRIFFON: Maybe the CATI says that. I forget where -- I thought I saw something. It should say had urine samples from INEL that were analyzed for gross beta and gross gamma. That's per your resolution or your response. But nothing for uranium, is there?

MR. SIEBERT: There is no internal information received from INEL.

CHAIR GRIFFON: Oh. Yes, while at INEL --

MR. SIEBERT: Yes, while at INEL the energy employee received a urine sample and analyzed for gross beta and gross gamma.

CHAIR GRIFFON: I think we need to pump in some oxygen into these rooms. Let's wrap this up and then take five.

DR. MAURO: We can only go so far.

CHAIR GRIFFON: Everybody can take five and then we will try to get as far as we

can get. There was no supplemental. We've got the original Idaho that said no reported external, so we thought there was no monitoring.

MR. SIEBERT: Yes, there was no internal dose assigned.

CHAIR GRIFFON: Assigned, yes.

MR. SIEBERT: It was the original response.

CHAIR GRIFFON: Okay.

MR. SIEBERT: And yes, the second that we have for the actual data, we have the individual dose has --

CHAIR GRIFFON: Gross beta.

MR. SIEBERT: -- urinalysis.

CHAIR GRIFFON: Yes.

MR. SIEBERT: Beta and gamma.

CHAIR GRIFFON: Yes. Does it show work locations on those things or anything like that?

MR. HINNEFELD: Let's see. CEA or CFA?

MEMBER CLAWSON: CFA, Central Facilities.

MR. HINNEFELD: Central Facilities.

MR. HINNEFELD: And then the last entry is for 8 -- yes, they are all -- I think they are all CFA, except for the last one there. There are five total. This is from 83 through 85.

CHAIR GRIFFON: Oh, 83 through to 85.

MR. HINNEFELD: 53, I'm sorry. 53 to 55. The first four in CFA. The last one is 83, which is still in that -- either in the same area of downtown, I guess.

DR. MAURO: The Central Facilities Area? What were they doing there?

CHAIR GRIFFON: Yes, it looks like it, but they could have been sent out to.

MR. HINNEFELD: Yes, they could have been sent out.

MEMBER CLAWSON: See that's where

area is based on central leasing. And then went out to all the different sites.

CHAIR GRIFFON: Yes, but it doesn't say CPP.

MR. HINNEFELD: It doesn't say CPP.

DR. MAURO: It could have been.

MR. HINNEFELD: CFA.

CHAIR GRIFFON: It looks likely, I think, you know.

MR. HINNEFELD: And only bioassay for fission products.

DR. MAURO: And --

MR. HINNEFELD: Beta gamma.

DR. MAURO: -- we still don't know whether or not two of -- OTIB-2 would be bounding even for a chem plant. I mean, I only brought that up --

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Yes.

DR. MAURO: It may still be bounding because of the radionuclides.

CHAIR GRIFFON: Well, let's leave that question on the table, I think, for this one, whether that is bounding in this case.

DR. MAURO: There is -- well, there is 12 radionuclides all of which are relatively long-lived and it's a big first day of work or something like that.

MR. HINNEFELD: There is 28.

DR. MAURO: 28. That's a big list, yes.

MR. HINNEFELD: There is 28 on fission products.

DR. MAURO: Okay. And that was assigned the first day at work.

MR. HINNEFELD: Yes. And it is like 110 MPC years.

DR. MAURO: Oh, yes.

MR. HINNEFELD: You know, all aggregated together. It's like 110 MPC years.

MEMBER MUNN: Okay. So what are we going to say about 126.2?

MR. HINNEFELD: The note I have is

that there is still a question of NIOSH to demonstrate that OTIB-2 is bounding, based on the employee=s work history.

CHAIR GRIFFON: Based on the work history, yes. It seems less likely now. If he was really getting higher exposures, I think he would have been assigned the CPP. Isn't that usually the case or not necessarily?

MR. FARVER: No.

MR. HINNEFELD: Could be a maintenance guy.

MEMBER CLAWSON: And earlier, in the earlier years --

MR. HINNEFELD: Earlier days, yes.

MEMBER CLAWSON: -- the only people that were in tech are CPP or TRA, but everybody else would be pulled in from the Central Facilities.

MR. SIEBERT: Okay. What does our external look like for that area?

MEMBER CLAWSON: The external for

chem plant?

MR. SIEBERT: Yes. I mean, because the guy has no external.

MR. HINNEFELD: No recorded external.

MR. SIEBERT: Zero.

DR. MAURO: Oh, is that right?

CHAIR GRIFFON: Yes, I would think if he was going to be internally, he would have also got --

MEMBER CLAWSON: He walked --

MR. HINNEFELD: It's very significant.

MEMBER CLAWSON: -- through the gate at CPP. He got dose.

CHAIR GRIFFON: So it's less likely, but you know.

MEMBER CLAWSON: I mean, yes, we're pushing it.

CHAIR GRIFFON: But I know something triggered this. Maybe check the CATI, too, to see what they -- where they said

they were.

MR. HINNEFELD: Okay. I'll check the case.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: It doesn't have a job description or anything.

CHAIR GRIFFON: All right. I'm going to --

MR. HINNEFELD: We have not pulled it up yet.

CHAIR GRIFFON: Can we take a very short break just to stretch our legs? Yes, a five minute break. And then we will try to -- we will go until basically 5:00 or a little before 5:00, if that's okay with everybody.

(Whereupon, the above-entitled matter went off the record at 3:38 p.m. and resumed at 3:46 p.m.)

CHAIR GRIFFON: We are back on. 127.1, and this is another Hanford case. And I don't have a NIOSH response on this one, unless it was added in.

MEMBER MUNN: Not even the May 30th?

CHAIR GRIFFON: No. There is no May 30th one.

MEMBER MUNN: Oh, well --

MR. HINNEFELD: Oh, this was -- was that the additional information we sent?

CHAIR GRIFFON: Oh, was it in the newer version? Okay.

MR. HINNEFELD: Yes, there was -- this is one where after one of these meetings there was a series of things we probably provided additional information on. And I did submit it on the matrix. I'll go back. I'm doing that all the time, but I submitted it another way. I submitted it on a different piece of paper.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: And I can't find it now, but --

CHAIR GRIFFON: So it's not in the August 20th matrix?

MR. HINNEFELD: No.

CHAIR GRIFFON: It's somewhere else?

MR. HINNEFELD: No, it's somewhere else.

CHAIR GRIFFON: All right.

MR. HINNEFELD: Sometimes I print those off and save them in the file. Oh, okay. Hey, I'm starting to remember this now. Yes, we, I believe, sent additional information somewhere around June. And I believe what -- this has to do with, I think whether neutron doses should be included.

MR. FARVER: Well, it also relates to 127.3, 127.5, shallow doses, neutron doses. I believe that's all. I believe you sent the information.

MR. HINNEFELD: Yes.

MR. FARVER: Oh, I don't know. That's one level. The response is contingent upon the EU's work location.

MR. HINNEFELD: Yes, and their

work location was in -- I mean, they were in the 100 area at Hanford, which is the reactor general area. But they actually worked in Building 108F, the biology laboratory.

MEMBER MUNN: Is that the reactor?

MR. HINNEFELD: Okay. So that is a reactor.

MEMBER MUNN: Yes, well, it's adjacent. It's on the same pad. It's not near the reactor itself.

MR. HINNEFELD: Okay. Because 105F is the reactor building or 108, the F Building?

MEMBER MUNN: No.

MR. HINNEFELD: See according to this --

MEMBER MUNN: 105B is the reactor building.

MR. HINNEFELD: Okay. According to this, 108F was where the person worked. And while that's in the 100 area, it's not immediately next to the reactor building.

MEMBER MUNN: No, it's not in the reactor building.

MR. HINNEFELD: And so because of that, even though he worked in the 100 area, we felt that the neutron dose wouldn't be included. Okay.

DR. MAURO: So we have a person here with film badge reading, but no -- the question is whether it's neutron or --

MR. HINNEFELD: I believe that was the nature of it.

DR. MAURO: As a common comment.

MR. HINNEFELD: Yes.

DR. MAURO: Right.

MR. HINNEFELD: Well, apparently, this is complicated, because there were two of them already. It was like a rework dose reconstruction, the one that was reviewed. Does that sound familiar to you?

MR. FARVER: Yes.

DR. MAURO: Yes.

MR. HINNEFELD: And there has been

some significant changes between the first version of the dose reconstruction and the second.

MR. SIEBERT: Efficiency methods versus having to do --

MR. HINNEFELD: Yes, the first version used efficiency methods, which included a lot of stuff, and real conservative -- I mean, a favorable selection of work location. They are in the 100 area. We will put them in the reactor. The reworked version left that out, because it got up to the -- within the 45 to 50 percent number and so we don't have these -- we don't want to do an overestimating efficiency method in that range.

So let's find out where they did work and it turns out while they were in the 100 area they were actually not in the reactor area. So the neutrons dropped out of the dose range. And I think some other things probably did, too.

CHAIR GRIFFON: So you determined that by what? By their --

MR. SIEBERT: On job title lab technician work location.

CHAIR GRIFFON: Okay.

MR. SIEBERT: In Building 108, the biology lab.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: So yes, but in terms of the record, we pulled that off.

CHAIR GRIFFON: It wasn't like a maintenance person that could have been -- right, right, right.

MR. HINNEFELD: But it was a lab technician.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: He worked in files laboratory.

CHAIR GRIFFON: Right.

MR. HINNEFELD: So I don't know, right, from reading what I have here, which record we pulled that off of. I think the --

gosh, I'm not that familiar with the Hanford dosimetry records. A lot of sites= dosimetry records are pretty good about -- or are pretty specific about work location or area that a person is assigned to. But not all of them. So I don't remember Hanford that well.

MR. FARVER: Yes, the concern was that you assume the 300 area for the entire time period when we was working on the 300 area. Now --

CHAIR GRIFFON: And it wasn't only neutrons, did you understand it was for --

MR. FARVER: Well, this goes on about neutrons, because even in the DR it says the EU was exposed to photon radiation.

MR. HINNEFELD: Okay. There are some more of our responses. So the dose reconstruction does, in fact, use the 300 area to select the photon energy distribution. And so for that reason they said we'll just assume they worked in the 300 area, because that has the 100 percent, 30 to 250 keV. And 108F if

you -- if you would use the specific energy distribution of that, you would have 25 percent, greater than 250 and 75 percent greater than 250. So the more -- the higher DCF the more favorable the outcome is 100 percent, 30 to 250, so that was selected in that range.

MR. FARVER: Okay. And part of the confusion was, like you said, there was a previous --

MR. HINNEFELD: Yes.

MR. FARVER: -- dose reconstruction performed.

MR. HINNEFELD: Yes. And so --

MR. FARVER: With different assumptions.

MR. HINNEFELD: -- while they worked at 100 and 300, if someone -- the 100 area and that's all you know and you generally think some neutrons should be included. In this case, we knew some additional information about where they worked and they weren't

around the reactor. So that's why.

CHAIR GRIFFON: I thought Doug said also something about shallow doses.

MR. FARVER: It goes on to another finding about shallow dose.

CHAIR GRIFFON: Yes. Separate from this? Because this says -- this seems like the overarching one, 127.1.

MR. FARVER: Yes, it is.

CHAIR GRIFFON: Okay.

MEMBER MUNN: I will have to assert if this was chemical lead technician and he worked in the 100 area and the 300 area, he would have been in all cases strictly during laboratory tech work. It would be highly unlikely he would be in the reactor area.

MR. FARVER: Okay. So the 300 area would be the more appropriate.

MEMBER MUNN: The 300 area is clearly where most of the chemical labs are located.

MR. FARVER: Okay.

MEMBER MUNN: I shouldn't say where most of them are. Where a large number of them are.

DR. MAURO: But in any case, the neutron exposure would be anticipated for working in any of these labs.

MEMBER MUNN: I would not anticipate given the information I have heard here, which was the location.

MR. FARVER: Well, actually, some of these findings hinged on the work location.

MEMBER MUNN: Yes.

MR. FARVER: So once we get that squared away, that will take care of a couple of these others.

CHAIR GRIFFON: Well, I put SC&A will review NIOSH's response, because we really haven't seen it, so we will get those in.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: It sounds like it

is going to get in.

MR. HINNEFELD: I'll resend the latest.

CHAIR GRIFFON: It sounds like a laboratory and you've got it pretty well-documented that it was a laboratory individual and not likely to have neutrons. And then we'll move on to these other findings and see where we stand.

MR. HINNEFELD: Scott found that the record of those workers was on the medical record, on their x-ray record. It has the Building 108.

CHAIR GRIFFON: Well, let's just go through these. 127.2, I have SC&A agrees that the approach is acceptable for this situation.

MR. FARVER: Yes.

CHAIR GRIFFON: Okay. So SC&A agreement on that one. 127.3, SC&A will review further. And you've got a comment on your sheet.

MR. FARVER: Right. And basically, this has to do with the shallow dose calculation whether you use greater than 15 keV or you use less than 30 keV photons. Photons or electrons. Having to do with whether you work around plutonium or not, which goes back to work location, which is what we just went through.

So based on the work location, the fact that the organ of interest is the breast, which is handled a little differently, you know, tech 17. You went back -- I went back and looked at it and as long as we agree with the work location, which is 127.1, then 127.3 is fine.

CHAIR GRIFFON: Okay.

MR. FARVER: In other words --

MR. HINNEFELD: And we will provide you that. And so we'll send --

MR. FARVER: In other words, they calculated the shallow dose in breast based on not working around plutonium.

CHAIR GRIFFON: Right.

MR. FARVER: Which is correct if he did actually work in the, you know, 300 area in the correct location.

CHAIR GRIFFON: Well, but this other lab, I don't know what he did in the labs. He or she.

MR. FARVER: Right.

CHAIR GRIFFON: So okay. So we will just leave it at that then. Check it contingent upon work location, right?

MR. FARVER: Right.

CHAIR GRIFFON: So we'll include the record of the work location when we send our 127.1 talking about the list. Okay. Okay. 127.4, SC&A agrees, no further action.

MR. FARVER: Yes, that's good.

CHAIR GRIFFON: 127.5, fails to find missed neutrons. This goes back to 127.1, doesn't it?

MR. FARVER: Yes, yes, correct.

CHAIR GRIFFON: Okay. All right.

127.6, SC&A agrees.

MR. FARVER: Correct.

CHAIR GRIFFON: 127.7, agrees, no further action. 127.8, I didn't have a NIOSH response on this. This is the internal --

MR. FARVER: Fission product?

CHAIR GRIFFON: Yes.

MR. FARVER: Does this relate to this work then?

CHAIR GRIFFON: Yes, in some fashion.

MR. SIEBERT: Where are we?

CHAIR GRIFFON: 127.8.

MR. HINNEFELD: I've got the -- I originally --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Okay. So we've got that. Well, we have a response here. It will be on the additional -- the latest version of the additional information. I'll send that back out. Same file, except for 127.1 includes this, our additional

information on 127.8, which is actually our initial response. There's no initial response on the matrix. And in fact 127.9, I guess is on that same.

MR. SIEBERT: Yes.

MR. HINNEFELD: Is on that same piece.

MR. SIEBERT: And 10.

MR. HINNEFELD: And 10.

CHAIR GRIFFON: You know what, I went over 127.5 a little quickly there, because it is the work location question, but it is also this Sodium-24 question. Do we close that out on the activation? I think NIOSH makes a compelling argument, you know, that the exposure levels needed to yield this sort of neutron influx that would activate enough sodium just aren't available in those buildings where the person worked. But I still have that note that NIOSH is saying we're going to follow-up on that.

MR. FARVER: I don't know. This

is the --

CHAIR GRIFFON: Okay.

MR. FARVER: -- ending solution. 44 activation question.

CHAIR GRIFFON: Yes, okay.

MR. FARVER: And I don't know if that's ever been discussed, resolved.

CHAIR GRIFFON: Well, it is discussed right there in their response.

MR. FARVER: Right.

CHAIR GRIFFON: Yes. So we will just leave it and you can look further at that or go ahead.

DR. MAURO: Yes. Well, it wasn't resolved at the Hanford issue resolution.

CHAIR GRIFFON: Oh, it hasn't been?

DR. MAURO: No. There is still some discussion/debate regarding it. However the Sodium-24 that you observed that people was due to drinking water versus a neutron exposure --

CHAIR GRIFFON: Right.

DR. MAURO: -- I think there has been a back and forth on that.

CHAIR GRIFFON: Yes.

DR. MAURO: We haven't closed it out.

MR. FARVER: Because this came up during one of our one on one calls recently on another case we were reviewing. So I don't know that it has ever been closed out.

CHAIR GRIFFON: Okay. I'm also going to put a reference into the site profile review.

DR. MAURO: Yes, still active.

CHAIR GRIFFON: Right, right, so we know to cross-reference that. Okay. I'm sorry, now, we were ahead to 127.8, 9 and 10, there's additional information or our initial response is actually on that additional information page that I'll resend.

DR. MAURO: Oh, okay.

CHAIR GRIFFON: Okay.

MR. FARVER: And in this case, the internal dose in products that we were talking about, I don't know if fission products is the right term. It has to do with the radon generator that was used in the 1008F and Carbon-14 for animal studies and other nuclides.

CHAIR GRIFFON: Which one are you on now?

MR. FARVER: I believe that was the one.

MR. HINNEFELD: 10.

CHAIR GRIFFON: 10.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Oh, 10, okay.

MR. FARVER: Oh, okay, that's right. That's not 8.

CHAIR GRIFFON: And you are going to -- you've got a response to that, right? Stu, you're going to research that?

MR. HINNEFELD: Yes, yes.

CHAIR GRIFFON: All right. We are

just going to pass over those for now until we get NIOSH's response.

MR. HINNEFELD: Sure.

CHAIR GRIFFON: We probably already have it somewhere, but -- all right. 127.9, is that the same status? There is a response there. I see, see 127.5 is my note, NIOSH will follow-up. Are they linked to 127.5?

MR. SIEBERT: It is a neutron.

CHAIR GRIFFON: Okay. It's a neutron, yes. It's the Sodium-24 neutron.

MR. SIEBERT: Ingestion from drinking water.

CHAIR GRIFFON: Right. It's a question of whether it was neutron activation, right. What, Wanda, I can't hear you.

MEMBER MUNN: Oh, I'm muttering to myself.

CHAIR GRIFFON: Oh, okay.

MEMBER MUNN: What 127.9 actually is about and Scott just said drinking water.

CHAIR GRIFFON: Well, I think they assigned it as an ingestion dose. And there is a question of whether it is neutron activation caused the Sodium-24.

DR. MAURO: The last time this was discussed, I remember Jim saying that depending on the location in the plant, I guess, if you are down gradient, like where the discharges were, the Columbia River and other groundwater is being -- the water is being supplied, it was Sodium-24. And then there is lots of evidence that the body burden observed of Sodium-24 is from that water.

And at the same time, we were very much involved in a debate regarding neutron to photon ratios associated with the reactor=s exposure. And I remember one of our arguments were we do have -- that was located at a place that would have been up gradient of that. And he has a new Sodium-24 burden.

So at least in that case, the -- you know, there was no reason to believe that

he got his water, you know.

CHAIR GRIFFON: Right.

DR. MAURO: But since then, okay, since the subsequent -- about a month ago, NIOSH issued comprehensive reports on neutron to photon ratios as measured throughout the Hanford. And we reviewed it. And we walked away. I can tell you, of course, the subject of the procedure -- well, wherever we review, whether it's the Hanford -- I guess it would be part.

CHAIR GRIFFON: Yes, yes.

DR. MAURO: It would be part of the Hanford. It's unique to Hanford. Sorry.

MEMBER MUNN: Yes, yes.

DR. MAURO: But I do recall reading the report. And the report showed lots and lots of data where neutron spectra, the right instrumentation was used to get the full neutron energy spectra and simultaneously photon information.

CHAIR GRIFFON: Right.

DR. MAURO: So very good -- it appeared to us that you had lots and lots of good data on neutron to photon ratios, except in the end reactor, I think it was. That was the only place that had a hole. And which brings us to a place which says that well, now that we are in a position to judge what the true neutron exposures were or the true neutron to photon ratios were, it sort of -- and if we have photon film badge readings and we have location, we're probably in a really good position to predict what the neutron exposures are, which makes the Sodium-24 issue moot.

CHAIR GRIFFON: Well, except --

DR. MAURO: Because --

CHAIR GRIFFON: -- if you can't explain that person up gradient. Why they would have that, you know.

MR. FARVER: Well, they were up gradient, but still in the 100 area.

DR. MAURO: Well, good question.

I don't know.

CHAIR GRIFFON: Maybe not moot, but I see what you're saying.

DR. MAURO: I'm saying that we are have advanced --

CHAIR GRIFFON: Right.

DR. MAURO: -- the state of knowledge greatly because of this special study that -- I guess, these records that you retrieved on this very subject.

CHAIR GRIFFON: Yes, yes.

DR. MAURO: I think it's -- and I recall that being one of the big ticket items related to the SEC issue. Can you reconstruct neutron doses?

CHAIR GRIFFON: Yes.

DR. MAURO: And I think a big subject is going to be, when the day comes, that we meet on Hanford, it's going to come to that. So now, whether or not that is going to resolve this, I don't know.

MR. HINNEFELD: Sodium and zinc in

drinking water, I mean, Hanford included that. You know, it was -- it showed up on in vivo counts with some regularity.

MEMBER MUNN: Yes.

DR. MAURO: And there's no doubt it's true.

MEMBER MUNN: And it was reported to the employees.

DR. MAURO: Yes.

MEMBER MUNN: You know, everybody knew that it was in the water.

MR. HINNEFELD: Well, I remember specifically, because you know, our, you know, position was they got that, you know, for our program. That dose is because they worked at the plant and so it was part of the dose. And so we -- they ingested it and so it's an ingestion.

DR. MAURO: You know, absolutely.

MR. HINNEFELD: But Hanford had that. You know, Hanford concluded that there was -- those radionuclides were in the

drinking water and they saw it in vivo.

DR. MAURO: And we don't dispute that.

CHAIR GRIFFON: But that kind of example that raises the question though if there is an up gradient, they wouldn't have got that.

MR. HINNEFELD: But when you say up gradient --

CHAIR GRIFFON: I know, I know.

MR. HINNEFELD: In other words --

CHAIR GRIFFON: I'm not sure.

MR. HINNEFELD: -- the drinking -- I remember during the --

DR. MAURO: I remember the meeting very clearly and first of all, it's very important to point out the only the reason Sodium-24 issue came up in the first place was we were offering that up as indirect evidence that maybe your neutron to photon ratios aren't trustworthy.

CHAIR GRIFFON: Right.

DR. MAURO: But it wasn't -- so now that you have, you know, the data --

CHAIR GRIFFON: Right.

DR. MAURO: -- to justify your neutron dose, which by the way it did go up on a factor of two, so in other words it was good that the data came in.

CHAIR GRIFFON: Yes.

DR. MAURO: It showed that the neutron to photon ratio was more than what you were originally using.

CHAIR GRIFFON: Yes.

DR. MAURO: Now, as far as the Sodium-24, remember the only reason Sodium-24 was put on the table in the first place was that indirect evidence made by -- from the first spreadsheet. And all we have to say in defense of our position was, you know, at least for that particular person, there was reason to believe that his particular Sodium-24 body burden may not have been due to drinking water, but due to neutron to photon.

Now, that's my --

CHAIR GRIFFON: Are you sure of that?

DR. MAURO: My recollection now as it applies to this particular case, I'm not too sure, you know, where it takes us.

CHAIR GRIFFON: All right. We will leave this one there for now. I mean, you know, we have the two other responses, 8 and 10, are coming from Stu and 9 is referred back to 127.5 for now. I don't think we can take it any further right now here.

DR. MAURO: Could I? Let me just say that so, I mean, just as a -- maybe there is a way to bring closure. This is the fellow with the location, right?

CHAIR GRIFFON: Yes.

DR. MAURO: Now, if it is confirmed that he was not in a location that -- where the potential for neutron exposure would exist, then the Sodium-24 ratio, if it has been met and measured, then it's just

certainly a drinking water problem. And you would reconstruct it the way you normally do reconstruct Sodium-24.

So -- and now, was that what was done here? The dose was reconstructed, based on assuming he was -- he ingested Sodium-24?

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: Yes, that's what was done, yes.

DR. MAURO: Okay. Well, I mean, that may put -- that may be --

MR. HINNEFELD: This was the guy where we got his 100 work location as the biology lab.

DR. MAURO: Right.

MR. HINNEFELD: We saw his medical.

DR. MAURO: Yes, once we take the neutrons out of the equation, if that's possible, then all of a sudden it becomes a straightforward dose reconstruction.

MEMBER MUNN: Well, there are

maps, you know.

MR. HINNEFELD: For that matter, you know, when you talk about the up gradient and down, I thought, you know, the 100 area is water.

DR. MAURO: General, yes. Well, that --

MR. HINNEFELD: That's what I thought.

DR. MAURO: Yes, I remember that being said after meeting --

MR. HINNEFELD: Because theoretically, I don't know how many well fields or what the well situation was at Hanford.

DR. MAURO: Right.

MR. HINNEFELD: I mean, I would expect you would have a lot of well fields. But when you distribute, I mean, when you have 100 water supply or just --

MEMBER MUNN: Virtually all of the drinking water.

DR. MAURO: There's no escaping. They're the same.

MEMBER MUNN: For the reactor, the water all came out of Columbia. And the uranium content of the water there was still relatively high, because it came across the uranium bed up in Canada.

DR. MAURO: Right.

MEMBER MUNN: But most of the drinking water for the reactor site, unless this person was somewhere other than that --

DR. MAURO: That was not --

MEMBER MUNN: -- reactor site.

DR. MAURO: I do clearly remember the argument that you made. This particular person was not at a location where you would expect his drinking water contained Sodium-24. I remember that was --

MR. HINNEFELD: I do remember that argument and I just remember that --

DR. MAURO: Whether it is true or not, I don't know.

MR. HINNEFELD: I think programmatically, we adopted this based on Hanford's conclusion that the drinking water is some part of the --

DR. MAURO: And we don't dispute that.

MR. HINNEFELD: -- was -- had this radionuclides in it.

MEMBER MUNN: Yes.

MR. HINNEFELD: And based on that conclusion and it's showing up -- because it showed up regularly in in vivo counts, that's how we determined it. That's how we interpret that result.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I mean, it's certainly a thread -- string that has got to be pulled, but you are doing that in the site profile review, I think.

DR. MAURO: That has got -- yes. Now, when we -- yes, that one -- when we get back to the site profile, let's say we close

that out.

CHAIR GRIFFON: That's all right.

DR. MAURO: We can close out -- let's say we close out the neutron/photon issue.

CHAIR GRIFFON: Yes.

DR. MAURO: And that really will need direct -- I mean, close it out good. What really is at play here is to make sure this fellow wasn't exposed to neutrons where his location was. And that makes this all moot. It doesn't apply to him. Obviously, if we've got Sodium-24, it has to be due to the drinking water.

MR. HINNEFELD: Right. Okay.

CHAIR GRIFFON: All right. 127.11, two more findings in this case. Breath sample monitoring reported in CATI. I have NIOSH will follow-up on whether radon breath testing occurred in the 300 area. Well, 300 area. I guess, he was in the 300 and the 100 area, right? But anyway, and what

potential radium source term existed? Modify response.

MR. HINNEFELD: I've got nothing new out for that one.

CHAIR GRIFFON: So they -- I guess the person claimed in their CATI that they have radon breath samples?

MR. HINNEFELD: Sounds like it.

DR. MAURO: Yes.

CHAIR GRIFFON: Maybe they were --

MR. HINNEFELD: No, they said they were -- they gave breath samples.

CHAIR GRIFFON: Oh, breath samples.

MR. HINNEFELD: It doesn't say radon specifically.

DR. MAURO: Correct.

CHAIR GRIFFON: Yes. So that's just a follow-up on that. You'll still treat that as an action, yes.

MEMBER MUNN: NIOSH will follow up, right?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I think my thought of that is when you ask someone if they left a breath sample, they may be thinking of a spirometry test.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: That's normally, because I mean, breath samples were not very common, yes.

MEMBER MUNN: Oh, that's right.

CHAIR GRIFFON: NIOSH failed to -- 127.12, I'm sorry, NIOSH failed to properly address incident report in two CATI reports. Why are there two CATI reports?

MR. HINNEFELD: Two survivors.

CHAIR GRIFFON: Two survivors, okay. And you had a follow-up action on this.

MEMBER MUNN: That kind of contamination event ought to be in the work record.

CHAIR GRIFFON: This was a contamination event?

MEMBER MUNN: Yes, they were pretty good about that. At least your response seems to make it sound so. Contamination event investigation.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Can you pull up the CATI and see what kind of -- what they are talking about?

MEMBER MUNN: Give me a second.

CHAIR GRIFFON: And you're saying nothing of this type was mentioned. You know, here is one of my standard sub-20 questions. Did you interview coworkers?

MR. HINNEFELD: Yes, but you know, this -- when did this happen?

CHAIR GRIFFON: This was early on.

MR. HINNEFELD: This was pretty early, right?

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: You're asking people to remember an awful lot.

CHAIR GRIFFON: I know, I know. It would have to be a very memorable --

MR. HINNEFELD: Memorable. I mean, a really serious event.

MEMBER MUNN: Yes, right.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: Especially if the incident were just a minor incident.

MR. HINNEFELD: Yes, most of us.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I don't think remember contamination events.

MEMBER MUNN: Contamination to that area of the body is highly unusual.

CHAIR GRIFFON: Well, then you should retract that statement in the middle of your response, too, because you say no incident of this type was reported by any other telephone interviews. Well, they are not likely to.

MR. FARVER: Apparently, in the January report there is an incident identified

in the 300 area. There was a leak in the 300 area when he was working in the lab. It turned his hair orange for a while. It's uncertain if the employee was directly involved in the incident. This occurred in the '80s. So that's one statement in the CATI.

MEMBER MUNN: And they don't know what kind of leak? In a 300 area lab, but not reported.

MR. FARVER: Now, on the second one, another survivor, apparently, there was three CATI reports, three survivors. Another one reported something was found in a wall and everyone was sent home. The EE's hair turned orange the one day at work and remained that way for some time. So there is two separate survivors.

MEMBER MUNN: I can assure you that the finding in the wall, which was well-publicized in the '80s, was not a toxic substance nor was it radioactive. And so the

--

CHAIR GRIFFON: What was the finding in the wall?

MEMBER MUNN: Oh, it was some minor thing. Somebody had just set something there and it was -- they plastered -- it was nothing of that, but they got all -- it was well --

CHAIR GRIFFON: Okay.

MEMBER MUNN: The --

MR. FARVER: Hair turned orange.

MEMBER MUNN: The hair turned orange.

CHAIR GRIFFON: Yes, I want to hear more about that.

MEMBER MUNN: It would not have been related to that particular incident.

CHAIR GRIFFON: Okay.

MEMBER MUNN: Although it was mentioned.

CHAIR GRIFFON: No radiation?

MEMBER MUNN: It would not have

been.

MR. HINNEFELD: It would have to be some chemical or something.

MR. FARVER: Oh, no doubt.

MR. HINNEFELD: Yes.

MR. FARVER: A chemical. The point was these things are identified in the CATI reports.

CHAIR GRIFFON: Right.

MR. FARVER: And no action was taken.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Well, we will agree that everything in the CATI should be addressed with dose reconstruction.

CHAIR GRIFFON: And what I just heard Wanda say this was a well-publicized incident in 1980, so it can be tracked back.

MR. HINNEFELD: Yes. You know, maybe it's like she said, it's non-radiological, non-toxic, whatever, you know. Maybe they are tying two things together that

don't go together, you know.

MEMBER MUNN: Yes, that's my thought.

CHAIR GRIFFON: But I mean, at least you can pursue that, I guess.

MR. FARVER: And even if it is just something to say we have reviewed these two things.

CHAIR GRIFFON: Yes.

MR. FARVER: And most likely it may have been a chemical reaction.

MR. HINNEFELD: If we were doing this dose reconstruction thing, we would -- the dose reconstruction we are talking about both these things, and it would say something -- it would probably say that the orange hair was probably due to an interaction with some chemical, but not really to exposure, and the item found in the wall and the building evacuation for that purpose would not have caused an official dose. The person was monitored after all. The person worked on

badge.

CHAIR GRIFFON: But you wouldn't investigate any further?

MR. HINNEFELD: No.

CHAIR GRIFFON: You would just change the wording?

MR. HINNEFELD: We would. Yes. I'll tell you what --

CHAIR GRIFFON: But I mean --

MR. HINNEFELD: -- Mark, we will not chase something like this down. Because you can say it's well-publicized and he has had five on one hand, that doesn't mean you can do it in a 10 or 15 minute phone call.

CHAIR GRIFFON: No, I know.

MR. HINNEFELD: There's a lot of work involved.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And we would not choose to invest that work to chase something down that we are confident isn't going to change the dose reconstruction, because

there's sufficient conservatism in the dose reconstruction to say it is good enough.

CHAIR GRIFFON: Oh. And that goes back to my general question, which you guys have on the record several times, which is when will you chase one down? You know, I think a handful is the answer I've gotten. That you will actually call coworkers or something to verify something.

You know, you can't always assume that these -- remembering incidences are bounded by chronic intake film. You know, that doesn't always answer the question.

MR. HINNEFELD: It could very well be.

CHAIR GRIFFON: You know, I --

MR. HINNEFELD: That could very well be.

CHAIR GRIFFON: -- am agreeing that, you know, this one, the way it sounds doesn't sound to me like there is probably anything there, you know.

MR. HINNEFELD: I can tell you one example when we called a coworker. There was a guy who said he was involved in an event, in a reactor at Savannah River. And that reactor, I forget which one it was, but it was damaged and shutdown for a while. And so I said let's call these coworkers.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Nobody remembered.

CHAIR GRIFFON: Okay. Right, right.

MR. HINNEFELD: Okay.

CHAIR GRIFFON: Yes.

MR. FARVER: Yes, but the point is you called and you followed-up.

CHAIR GRIFFON: Right, right.

MR. FARVER: You couldn't confirm it, so you just -- you don't --

MR. HINNEFELD: Yes.

MR. FARVER: You can ignore it then, because you didn=t do follow-up.

MR. HINNEFELD: Again though, we

invested days.

MR. FARVER: Yes.

MR. HINNEFELD: And to say that -- now that one struck me.

CHAIR GRIFFON: It's a judgment call really.

MR. HINNEFELD: Yes, yes. That one struck me, well, the reactor is damaged.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: There was collaboration.

MR. FARVER: There is enough evidence.

MR. HINNEFELD: There was a collaborating circumstance that gave credibility to a serious event.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Okay.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And those circumstances, I think, is where we would call.

CHAIR GRIFFON: And that was all for 127. So where do we stand with that one then?

MR. FARVER: On that one?

CHAIR GRIFFON: Yes.

MR. FARVER: I don't believe that we --

CHAIR GRIFFON: I mean, I have it NIOSH will follow-up for more information, but I'm not sure that --

MR. HINNEFELD: I believe what I thought our resolution was is we agree that we should have written the dose reconstruction better.

MR. FARVER: And the second part that I have here was, you know, how did that make it through QA? You know, the CATI --

MR. HINNEFELD: Well --

MR. FARVER: -- should have been reviewed.

MR. HINNEFELD: -- at the time that this was done, we didn't have our full

standing order to signify --

MR. FARVER: Okay. Yes.

MR. HINNEFELD: -- that's how it would have been done through QA.

MR. FARVER: Okay.

CHAIR GRIFFON: Right.

MR. FARVER: A lot of times the reason we bring this up is because when the survivors get the report back and it says there were no incidents identified --

MR. HINNEFELD: Yes.

MR. FARVER: -- and they say well, we told you about it.

MR. HINNEFELD: Yes.

MR. FARVER: It takes away credibility from the program.

MR. HINNEFELD: That's exactly right.

MR. FARVER: Right.

MR. HINNEFELD: That is exactly right. And that's why we changed it. Well, just because it would be a better -- well I

was going to say better person, actually a better person, to do this job better is why we changed it.

CHAIR GRIFFON: Let's see, I guess we can go a little farther.

MR. HINNEFELD: If this group goes to 140 again --

CHAIR GRIFFON: I know, I know. This might be the -- let's just call this the last one. We're not going to get through the whole matrix, so, you know, let's try to get through 128 and call it a day.

MR. FARVER: Okay. You heard him. He said he was going to call it a day after this one.

CHAIR GRIFFON: Yes, it's on the record. You can play it back. All right. 128.1, NIOSH has revised their tool, compensable case. Oh, this one is no further action. 128.2, oh, you looked ahead, huh, John?

DR. MAURO: Yes. Smiling from ear

to ear.

CHAIR GRIFFON: No further action is on 128.2, the same thing. 128.3, NIOSH agrees, NIOSH reassessed and had no effect on the case. That's for 128.3. 128.4, boy, I'm letting you guys off too easy, NIOSH agrees, NIOSH reassessed and had no effect on the case. That was a quickie.

I see no reason to plunge on forward. We're not going to finish the matrix. So we will still stick to that. Yes, let's stop here. We will stop here, so I can save everything.

All right. So we have some actions, right. What I'll do is -- and I apologize for not having current versions of the sixth and seventh matrix, but I've got like two things to consolidate for the sixth matrix and pull them together into a final form electronic version. And it should be a little easier on the seventh matrix for me to pull it together, because I've got -- I was

making my updates on the computer. And once I get a few things from Stu on the other NIOSH responses --

MR. HINNEFELD: Yes, the missing initial responses. Do you want me to put those in the matrix, in a matrix and send them to you or just give you -- you know, maybe those pieces of the matrix?

CHAIR GRIFFON: Why don't you give me the pieces, yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Because otherwise I'll have to cut and paste anyway.

MR. HINNEFELD: Okay. I'll just give you those pieces.

CHAIR GRIFFON: That would be great, yes. And final item maybe if we can look at calendars for January? I don't know what exists on the calendar now to get a sense of --

MR. KATZ: In January, there is a work group meeting, Pinellas, on the 8th.

CHAIR GRIFFON: 8th.

MR. KATZ: That's the only thing scheduled so far.

CHAIR GRIFFON: I think we want to go beyond there anyway, at least I do. We don't want to be before that.

MR. KATZ: No. It's a nightmare before that.

CHAIR GRIFFON: Yes.

MR. KATZ: Because of Christmas and New Years.

CHAIR GRIFFON: Right, right.

MR. KATZ: Then you're right there.

CHAIR GRIFFON: All right. Let's see.

MR. HINNEFELD: Has the Board called a conference on January 13th?

MR. KATZ: That's canceled.

MR. HINNEFELD: Is it canceled?

MEMBER MUNN: Yes.

MR. KATZ: Yes, I think that issue

was sent out, I think, today.

MR. HINNEFELD: Or if she did send something, I haven't opened it.

MEMBER MUNN: Does the Board have the 19th off?

MS. HOWELL: The 19th and 20th.

CHAIR GRIFFON: What? Huh?

MS. HOWELL: If you are in D.C., the 20th is a holiday.

MR. HINNEFELD: Oh, Inauguration Day.

MS. HOWELL: Because you can't get anywhere.

CHAIR GRIFFON: How about the 15th? Thursday the 15th or is that too soon? I mean, we've got a meeting coming up and then we got the holidays. Is it just too -- yes, let's do it towards the end of the month then. How about Thursday the 29th? I like Thursdays.

MEMBER MUNN: Why?

CHAIR GRIFFON: I don't know, but

it's --

MEMBER MUNN: Well, shoot.

MR. KATZ: Thursday the 29th?

CHAIR GRIFFON: Yes.

MR. KATZ: That looks okay to me.

CHAIR GRIFFON: That works so far? It's good to get it on the calendar now, before the meeting comes up next week and we'll be throwing it up, I'm sure.

MEMBER MUNN: Now, let me ask a question. Why do you not like Fridays?

CHAIR GRIFFON: Nobody likes Fridays.

MS. HOWELL: Traveling on Fridays.

CHAIR GRIFFON: Yes, traveling on Fridays is very unpleasant.

MEMBER MUNN: Well, yes, but how many of you have to travel on Friday?

CHAIR GRIFFON: You have to travel.

CHAIR GRIFFON: Okay. I got it anyway. Cincinnati, 9:30, standard.

MR. KATZ: Is that good?

CHAIR GRIFFON: All right. January 29th. Okay.

MS. HOWELL: Is that going to give you enough time to get stuff together for the February Board meeting?

CHAIR GRIFFON: The February Board meeting is pretty much -- is the week of President's Day.

MS. HOWELL: Will that be enough time?

CHAIR GRIFFON: Yes, that's three weeks later.

MEMBER MUNN: No, just two weeks really.

CHAIR GRIFFON: The 20th then.

MR. KATZ: Isn't it the 18th and 19th, something like that?

MEMBER MUNN: Yes, two weeks out.

CHAIR GRIFFON: Yes, 17th through the 19th.

MR. KATZ: Okay. In between 2:00

and 3:00.

CHAIR GRIFFON: I better put that up on my calendar. It wasn't even on here.

MR. KATZ: That's in Albuquerque.

CHAIR GRIFFON: Yes.

MEMBER MUNN: 17th.

CHAIR GRIFFON: Oh, Albuquerque. You're making me travel, too.

MEMBER CLAWSON: Oh, wait a minute. Let me break it to you. Let me break out of here.

MEMBER MUNN: Yes, I'm all for that.

MR. KATZ: So are you going to try, Mark, to do the beta testing or whatever?

CHAIR GRIFFON: Yes.

MR. KATZ: Prior to that?

CHAIR GRIFFON: Yes, I'll work with Kathy. And I might tap into Wanda's experience from the Procedure's Work Group, you know, if --

MEMBER MUNN: Thanks a lot.

MR. KATZ: I'll just put it on my calendar now and block out that date.

CHAIR GRIFFON: Yes, she will have to run through.

DR. MAURO: Data loading is difficult. In other words, what are you going to load? I don't know how far back you can go.

CHAIR GRIFFON: Yes.

DR. MAURO: Unless you just want to start with this, you know.

CHAIR GRIFFON: Well, yes. I'll talk to Kathy and Steve about that, right?

DR. MAURO: Yes, Steve -- Kathy and Steve.

CHAIR GRIFFON: Why is data -- well, anyway, I'll talk --

DR. MAURO: Well pulling, you know, the information that is on the current spreadsheets, and all the different spreadsheets that are out there.

CHAIR GRIFFON: Yes.

DR. MAURO: See remember --

CHAIR GRIFFON: Oh, yes, yes. You want to get your iterations or responses, yes, yes.

DR. MAURO: What I ended up doing anyway with the procedures --

CHAIR GRIFFON: I mean, the --

DR. MAURO: -- there were early procedure meetings. I didn't try to capture them.

CHAIR GRIFFON: Right.

DR. MAURO: What was in that one. So I picked it up and I said, you know, we're picking it up from here.

CHAIR GRIFFON: Oh, no, no. I think we'll do the same thing. I think what I would like to do --

DR. MAURO: -- actually the one before.

CHAIR GRIFFON: Well, my goal would be for Kathy and the database going forward would be the first five have them as,

basically, final products done.

DR. MAURO: They're done, delivered.

CHAIR GRIFFON: Put them in the database, but don't put all the --

DR. MAURO: Yes, and --

CHAIR GRIFFON: -- iterative stuff.

DR. MAURO: No, don't put any.

CHAIR GRIFFON: Then going forward do the --

DR. MAURO: Pick it up from the sixth on, because we've got it.

CHAIR GRIFFON: Yes, yes.

DR. MAURO: Yes.

CHAIR GRIFFON: Right.

DR. MAURO: Which is still a big job.

CHAIR GRIFFON: That's still a big job, but the first five should be no problem.

DR. MAURO: Well, in theory, it's closed out with the delivery.

CHAIR GRIFFON: Right.

DR. MAURO: Well, the only problem is the only record -- the record you have of the first five --

CHAIR GRIFFON: Yes.

DR. MAURO: -- is the transcripts. I mean, that's really what you have as a complete record of what --

CHAIR GRIFFON: Yes.

DR. MAURO: -- how you got to the first five.

CHAIR GRIFFON: But you don't -- yes, but we don't -- I don't expect you to go back further for that.

DR. MAURO: No, no.

CHAIR GRIFFON: No.

MS. BEHLING: Perhaps we can just pull information off the matrix.

CHAIR GRIFFON: Well, we do, yes. You can basically import it. The problem, I think, is going to be the last column. We will have to probably go in and edit that to

be consistent with the procedures. You know, closed, in abeyance, whatever the terminology that we need there. So that we B- they can track or whatever, yes.

MS. BEHLING: Okay.

CHAIR GRIFFON: All right. We will work on that in between these meetings.

MEMBER MUNN: Okay. Don't be surprised if I try to schedule a decision meeting on the 28th.

CHAIR GRIFFON: You're going to double team it again?

MEMBER MUNN: If I'm going to come across it, I might just as well.

CHAIR GRIFFON: Is that a Friday or the Wednesday?

MEMBER MUNN: That would be Wednesday.

CHAIR GRIFFON: Oh, that would work, I think, for me. I hear you, okay.

MEMBER MUNN: We will know that tomorrow.

CHAIR GRIFFON: I think that's it.

MR. HINNEFELD: Thanks, Mark.

MS. BEHLING: All right. Thank you.

CHAIR GRIFFON: Good work. Meeting adjourned.

(Whereupon, the above-entitled matter went off the record at 4:34 p.m.)