U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL

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NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

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SUBCOMMITTEE ON DOSE RECONSTRUCTION REVIEWS

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THURSDAY
SEPTEMBER 3, 2009

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The meeting convened at 10:00 a.m. in the Zurich Room of the Cincinnati Airport Marriott Hotel, Hebron, Kentucky, Mark Griffon, Chair, presiding.

PRESENT:

MARK GRIFFON, Chair
MICHAEL H. GIBSON, Member
WANDA I. MUNN, Member

ALSO PRESENT:

KATZ, TED, Designated Federal Official
ADAMS, NANCY, NIOSH Contractor*
AL-NABULSI, ISAF, DOE*
BEHLING, HANS, SC&A*
BEHLING, KATHY, SC&A*
BRACKETT, ELIZABETH, ORAU Team*
EAST, JAMES, SC&A*
ELLIOTT, LARRY, NIOSH OCAS
FARVER, DOUG, SC&A
HINNEFELD, STU, NIOSH OCAS
HOWELL, EMILY, HHS
SHARFI, MUTTY, ORAU TEAM*
STIVER, JOHN, SC&A*

*Participating via telephone

T-A-B-L-E O-F C-O-N-T-E-N-T-S

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

10:02 a.m.

MR. KATZ: Good morning, everyone on the phone.

This is Ted Katz, the Acting Designated Federal Official for the Advisory Board on Radiation and Worker Health, and this is the Subcommittee on Dose Reconstruction Reviews.

We are just convening. We will do roll call to begin with.

Board members first in the room?

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

MEMBER MUNN: Wanda Munn, Committee member.

MEMBER GIBSON: Mike Gibson, member of the Board.

MR. KATZ: And on the line, do we have anyone? Do we have John? John Poston?

(No response.)

Okay, any other Board members?

(No response.)

Okay. Then in the room, NIOSH ORAU team?

MR. ELLIOTT: Larry Elliott, Director of the Office of Compensation Analysis and Support.

MR. HINNEFELD: Stu Hinnefeld, Technical Program Manager.

MR. KATZ: NIOSH ORAU team on the line?

MR. SHARFI: Mutty Sharfi, ORAU team.

MR. KATZ: Hi, Mutty.

MR. SHARFI: Hi.

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

MR. FARVER: Doug Farver, SC&A.

MR. KATZ: And on the line?

MS. BEHLING: Kathy and Hans Behling, SC&A.

MR. KATZ: Welcome, Kathy and Hans.

MS. BEHLING: Hi.

MR. EAST: James East, SC&A.

MR. KATZ: James East, welcome.

Okay, and then do we have any federal officials in the room first?

MS. HOWELL: Emily Howell, HHS.

MR. KATZ: And any federal employees or contractor staff on the line?

MS. ADAMS: Nancy Adams, NIOSH contractor.

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

MR. KATZ: Welcome, Isaf, again, and Nancy.

MS. AL-NABULSI: Thank you.

MR. KATZ: Okay, and then any members of the public on the line?

(No response.)

Okay. I would just remind folks on the line to mute your phones except when you are talking to the group, please.

And it is all yours, Mark.

CHAIR GRIFFON: Today's meeting,

just to give a quick agenda, because it will be pretty easy to describe the agenda. Really, there are three primary things.

The most important, I guess, is probably the 12th set of cases. We want to select the cases. At the last Board meeting, the Board approved the Subcommittee to make the final decision and authorize SC&A to work on these cases. So that is our main goal to accomplish today. I think we will do that first off.

Then we are going to continue our work on the sixth, seventh, and eighth set. I think that is probably as far as we can expect to get. It may be a little bit of going back and figuring out our notes.

The sixth set and seventh set I believe only have a few outstanding items that we have to resolve, and then the eighth set is a little further to go. I don't think we have made it through that entire matrix one time yet.

Then the last item on the agenda comes from the Advisory Board meeting, the last Board meeting. I think at this meeting I would like to just kick off the discussion. I'm not sure we are going to get to a point where we can make a recommendation to the Board.

But if you remember at the last meeting, the Board tasked the Subcommittee to follow up on the summary findings in the First Hundred Case Report and just have a discussion of what impact on NIOSH's program do these findings have, if any, so to further, I guess, clarify what those summary findings mean and how they impact the NIOSH program.

I guess the bottom-line question that NIOSH has been asking us is, did we meet, did NIOSH meet the standards set out in the statute. Was it scientifically accurate and all that?

We did skirt around that definitive answer a little bit in our Hundred

Case Report. So we have been asked to sort of reassess that. I think we want to at least have some dialogue today and maybe think about what we can say and what we can't say about those summary findings, and we will bring that back to the Board in the future.

So that is what is on the agenda, as far as I can remember. Are there any other items? I think that is it.

Then for those of you who are on the phone, this is the trench work, so to speak. We will go through the case selection, but then we are going to go through finding-by-finding. So it can be a little slow at times, especially after lunch, but we've got to work through these things. This is the details.

MR. KATZ: Do you want to confirm with John the number of cases that are needed?

CHAIR GRIFFON: John's not on the line.

MR. KATZ: Oh, John is not on it,

but maybe Kathy or Hans could tell us.

CHAIR GRIFFON: Or Doug.

MR. KATZ: Or Doug.

MR. FARVER: It was, like you said, 42 or 46.

MR. KATZ: Forty-two to 46?

MR. FARVER: Yes.

MR. KATZ: Something in that ballpark is the number of cases that SC&A needs, is that correct?

MS. BEHLING: I believe that is correct. I can check on that number.

CHAIR GRIFFON: All right. While we're doing it, maybe if you could check on that, Kathy, that would be great.

MS. BEHLING: Okay, very good.

MR. KATZ: Thanks, Kathy.

CHAIR GRIFFON: Okay. Alright. So I guess the best way to proceed is just everybody has the spreadsheet of the 12th set of cases. We have 82 from our last sort of triaged approach. NIOSH narrowed it down or

we narrowed it down to 82, and then Stu filled in these other fields that we have asked to be better described.

So if we want to just run down, I went down and highlighted sort of the ones that I was interested in. I like to work from a hard copy on this, but we will do the best we can here.

MEMBER MUNN: Mark, do you have any specific criteria you want for us or you would like us to prioritize as we are looking at this set?

CHAIR GRIFFON: Well, I don't know, other than what we used in our first cut on this, I think, still applies, you know.

MEMBER MUNN: All right. I just wanted to make sure that hadn't changed.

CHAIR GRIFFON: No. I mean, I noted the only criteria I was looking at as I went through here is in that external dose method and internal dose method I did look for best estimate although Stu cautioned us on how

that field was completed by people. But I did to some extent use that.

Then, as you remember, some of the cases we picked the first round through on this, we picked because it was a new site. So that is another thing I was looking for.

MR. ELLIOTT: Did you get copies, hard copies? We have a hard copy.

CHAIR GRIFFON: Yes, if you don't mind, that might be helpful.

MR. ELLIOTT: Which ones? Do you want all of these?

CHAIR GRIFFON: Stu, is that what you emailed around or is that the first version of it?

MR. HINNEFELD: This is the pre-selection.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: These are the pre-selected ones.

MR. ELLIOTT: Oh, so it's not going to be that helpful.

CHAIR GRIFFON: That's okay. We will go with this.

MR. HINNEFELD: It's not the ones that were -- that was the original list that they pre-selected from at the Board meeting.

CHAIR GRIFFON: Okay. So, going down, the first one I have is 211 and 212.

MEMBER MUNN: 211 and 212?

CHAIR GRIFFON: Maybe if anybody has anything before that, just let me know. These are not -- oh, they are in numerical order. There's just some numbers skipped because they've been screened out.

So 211 and 212, looking at Column A and the last three numbers I am referencing here.

So I have 211, 212, 218, 219 -- oh, I mean 220. I'm sorry. I will stop there. If people agree with those or have any before that that I didn't name?

MEMBER MUNN: 211, 212, 218 and 220?

CHAIR GRIFFON: Yes.

MEMBER MUNN: Those are all the same site.

CHAIR GRIFFON: Are they all Savannah River?

MEMBER MUNN: Yes.

CHAIR GRIFFON: Keep an eye on that for later ones then.

MEMBER MUNN: And all the same decade.

CHAIR GRIFFON: They all started early in the -- yes, a lot of years have worked, yes. So they were there multiple decades.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I mean is that still okay, Wanda?

MEMBER MUNN: Sure.

CHAIR GRIFFON: Yes.

MEMBER MUNN: We can always change anything we want with them.

CHAIR GRIFFON: Yes, yes. Then I

have 246, which is actually over 50 percent, but it is Albuquerque Operations Office. It is kind of a unique multiple-site thing.

MEMBER MUNN: Yes. Interesting.

CHAIR GRIFFON: Then I had 249.

MEMBER MUNN: Yes, agreed.

CHAIR GRIFFON: Which is the Hanford. Again, over 50 percent, but full.

MEMBER MUNN: It's still interesting.

CHAIR GRIFFON: It looks like a lot of best estimates. Yes, yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Then 266 also and 275. And 283 and 284. So right in a row there.

And 285 I have. Over 50 percent, but multiple Oak Ridge sites, including the thermal diffusion. This goes back early.

MEMBER MUNN: Yes.

CHAIR GRIFFON: So I don't think we really talked about S-50 very much.

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

CHAIR GRIFFON: Then I have 347. This is just for the oddity reason.

MEMBER MUNN: Yes.

CHAIR GRIFFON: It's very low work time and over 50 percent.

MEMBER MUNN: Yes, it is strange.

CHAIR GRIFFON: Yes. Then 356.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And keep in mind, some of these we may lose once Labor looks at them, right?

MR. HINNEFELD: Yes, Labor will look at them.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Do what they call post-closure.

CHAIR GRIFFON: Right, right. So I am already up to 13. So if we go a little high, we are probably going to lose some.

MR. HINNEFELD: High is better.

CHAIR GRIFFON: Yes, yes.

The next one I have is 364. Please, if I skip some that you want, let me know.

MEMBER MUNN: Why did you skip 358?

CHAIR GRIFFON: 358?

MEMBER MUNN: Even though it's over 50.

CHAIR GRIFFON: Yes, I know.

MEMBER MUNN: Nevertheless, it's -- so we had that --

CHAIR GRIFFON: Yes, I'm probably okay. It's best estimate internal, anyway.

MEMBER MUNN: Yes.

CHAIR GRIFFON: It's a little over 50. But I know there were some other Fernald ones that were below 50, but that's fine; 358 is okay with me.

MEMBER MUNN: Then you went to 64?

CHAIR GRIFFON: Three sixty-four, yes. That was because of, again, that is over

50 percent, but it was like multiple labs, actually.

MEMBER MUNN: Right.

CHAIR GRIFFON: It looks like the person went --

MEMBER MUNN: New in town.

CHAIR GRIFFON: Right.

Then I had 377, although I am not sure -- well, yes, 377. I had a question on SEC for me on that one, but I forget -- that might be after the -- no, that's in the time period. I don't know. So we might lose some of these, you know.

MEMBER MUNN: And you skipped 369?

CHAIR GRIFFON: No, I didn't. I just forgot to say it.

MEMBER MUNN: Oh, okay.

CHAIR GRIFFON: Three sixty-nine. Then I have 381, 390, and 392. 392 is really, this one is for Paul. It's a Bethlehem Steel. It is a Bethlehem model, but Paul, I think, picked this the first round through because

49.57, his question about the round off.

MEMBER MUNN: Right.

CHAIR GRIFFON: It is pretty close to 50.

MEMBER MUNN: Sure.

CHAIR GRIFFON: Let's see, I'm on down to 403 now. General Steel. Honestly, I couldn't remember if we did any -- Doug, do you remember if we did General Steel at all?

MR. FARVER: Any cases?

CHAIR GRIFFON: Yes.

MR. FARVER: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: We have done?

MR. FARVER: Yes.

MEMBER MUNN: Yes, we have.

MR. FARVER: And that was one of John's questions. If you run across any of these AWEs that you would like to have a site profile, a mini site profile review, like we have done before.

CHAIR GRIFFON: Yes. I think once

we get back from Stu the final list that we are allowed to do, then we can make that decision.

MR. FARVER: Sure. He just wanted me to bring that up, so you were aware of it.

CHAIR GRIFFON: Yes, yes. Because some of these were clearly selected for that reason --

MR. FARVER: Right.

CHAIR GRIFFON: -- that they were sites we hadn't seen before.

Well, if we have done General Steel before, I'm up to -- what am I up to?

MEMBER MUNN: You are up to 403 or something, but I am wondering --

CHAIR GRIFFON: I'm up to 20 in terms of cases.

MEMBER MUNN: Oh, number. I see what you mean.

MR. KATZ: Can I ask you something, Mark --

CHAIR GRIFFON: Yes.

MR. KATZ: -- that is substantive about the Beth Steel one?

CHAIR GRIFFON: Yes.

MR. KATZ: I mean, since it is a model and it is just cranked out based on the exact parameters and latency and all that --

CHAIR GRIFFON: I know, it's more of a policy.

MR. KATZ: What do you really do with that?

CHAIR GRIFFON: I know, it's more of --

MR. KATZ: And in that case, does it really make sense to task SC&A with that or -

CHAIR GRIFFON: Right, right, right.

MR. KATZ: -- does it make more sense for the Board to have a discussion about a case like that?

CHAIR GRIFFON: Yes, I think that is more of a policy question, actually. The

only reason I kept it on was because --

MR. KATZ: No, I understand. I remember it was all --

CHAIR GRIFFON: -- our Chair wanted it.

(Laughter.)

MR. KATZ: But, still, it seems to me like there's not much of a review --

CHAIR GRIFFON: I know, I know.

MR. KATZ: -- to be done with this.

CHAIR GRIFFON: Right, you're correct, yes. Because we have done other Bethlehem cases, yes.

I would just as soon drop that one, yes.

MR. KATZ: Do you have any other thoughts on that?

MR. HINNEFELD: Well, my thought on that is it is a lung cancer with nine years of employment. In order to not be compensated from the Bethlehem Steel model, it must have

been diagnosed pretty close to the start of employment.

MR. KATZ: Right. That's right. Exactly.

MR. HINNEFELD: Because otherwise I am almost positive at nine years of employment at Bethlehem Steel would compensate a lung cancer.

MR. KATZ: Right.

MR. ELLIOTT: It's a latency issue.

MR. KATZ: There's not much for SC&A to put their teeth into in this.

MR. HINNEFELD: Right, because they have reviewed the model.

MR. ELLIOTT: Other than the statistical approach we use for those between 45 and 52, but that is all computer-driven.

MR. KATZ: That is routine, too.

CHAIR GRIFFON: You are right, Ted, that might be more of a policy --

MR. HINNEFELD: Drop 392 off then?

CHAIR GRIFFON: Yes, let's drop 92, if that's okay with you.

Thank you, Ted.

MR. ELLIOTT: I think it would be good to have a policy discussion about it because, you know, there's one there, but there are others that are close.

CHAIR GRIFFON: Right.

MR. ELLIOTT: Unfortunately, unless they get another cancer, and I don't know if this guy is deceased or not, that's not going to happen.

CHAIR GRIFFON: Right.

MR. KATZ: Mark, on the teleconference next week you can talk about this case, since we have just gone through this --

CHAIR GRIFFON: Yes, we can do that, yes.

MR. KATZ: -- as part of your Dose Reconstruction Subcommittee.

CHAIR GRIFFON: I can mention this

as I report out, yes. Okay.

All right, how about 403 then, General Steel? This is a site model also. So if we have done one, we have done them all, basically, I believe, although there might be some differences in that. I'm not sure.

MR. HINNEFELD: Boy, I can't remember General Steel now, whether we apportioned to different types of -- whether the radiographers get a different dose reconstruction than other people or not.

CHAIR GRIFFON: That is what I was just wondering, yes.

MR. HINNEFELD: I don't remember. I don't remember.

MR. KATZ: I have that same recollection that there are some different colors to it.

CHAIR GRIFFON: All right, let's leave that one on there, yes.

MEMBER MUNN: It is probably a good idea to.

CHAIR GRIFFON: Yes, but then the job title is unstated. So we don't know much more.

MEMBER MUNN: What about -- before we get away from that fact, what about 397? That is one of those who have given job title and type of cancer. There's been so much interest in that particular type of claim. That might be an interesting thing.

CHAIR GRIFFON: A short time period there.

MEMBER MUNN: Yes, but that's one of the --

CHAIR GRIFFON: Yes, all right, 397.

That brings us up to 21, which is kind of halfway, but we want to go a little over. Alright.

MEMBER MUNN: But we decided 403?

CHAIR GRIFFON: Yes, 403 I put on there.

What is that?

MEMBER GIBSON: What about 422?

CHAIR GRIFFON: I didn't get that far yet, but I was going to add -- actually, I'm going to drop 416 now because we do have a lot of Savannah River that we have already done.

So 422?

MEMBER GIBSON: Yes. A different type of illness, it looks like, and then the job title is kind of strange, too.

CHAIR GRIFFON: Yes. That one might be better than the other one for General Steel. We could drop 403 and do 422. What do people think about that?

MEMBER MUNN: They're both shown as overestimates.

MR. HINNEFELD: Yes, but I mean that is the site model.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Right.

MR. HINNEFELD: That is the dose reconstructor --

CHAIR GRIFFON: Exactly. It says overestimate, but --

MR. HINNEFELD: Because they feel like the site model is too big.

MEMBER MUNN: Right.

CHAIR GRIFFON: If I were going to pick one, General Steel. I think 422. Mike is probably right. It looks a little more interesting.

Is that all right? I will drop 403 and put 422.

Alright. Then I have 430, and this, in my mind, was -- and 439, and these, Doug, to answer your question, were like mini site profile kind of ones because this is sites we haven't done before, I'm pretty sure.

U.S. Steel Company, National Tube Division.

MEMBER MUNN: Yes, we haven't done that one.

CHAIR GRIFFON: And Koppers Company, which I don't even know where the

heck that is.

So 430 and 439.

Then 444. I don't think we have had a DuPont Deepwater Works, either.

MEMBER MUNN: No.

CHAIR GRIFFON: So another mini site profile type of thing.

MR. FARVER: What was the next number?

CHAIR GRIFFON: Four forty-four.

MEMBER MUNN: Four forty-four.

CHAIR GRIFFON: And then 450 and 451, those are my next two. And 451 looks like it might be another site profile type of question. I don't think we have done that company before, Electro Metallurgical.

MEMBER MUNN: No, they're fairly recent as far as the SEC is concerned.

CHAIR GRIFFON: And then 457, I wasn't sure on, if we had done Allied Chemical before.

MR. FARVER: It doesn't sound

familiar.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: We certainly wouldn't have done very many.

CHAIR GRIFFON: Right.

MEMBER MUNN: I think we did one, but not a bunch.

CHAIR GRIFFON: So 457 for that reason.

Then 460, Fernald site.

MR. KATZ: Mark, can I ask you another substantive question?

CHAIR GRIFFON: Yes?

MR. KATZ: Some of these you have named, these metal ones that you say possibly need a mini site profile, are some of these TBD-6000/6001?

CHAIR GRIFFON: Yes, yes.

MR. KATZ: So some of those may not need -- do they need a mini site profile if they are getting a review by the TBD?

MR. HINNEFELD: I still think they

do.

MR. KATZ: Okay.

MR. HINNEFELD: Yes. There is a question there because TBD-6000 provides options of application. There is more than one approach defined in TBD-6000.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And it would be an evaluation, essentially, a series of -- each one is an evaluation of that application of TBD-6000.

MEMBER MUNN: Yes.

MR. HINNEFELD: Some of those don't sound familiar at all to me. Some of them do.

CHAIR GRIFFON: Yes. We may have to coordinate with the TBD-6000 Group on that, as we go down this.

MEMBER MUNN: But that was the whole point in the 6000/6001 thing.

CHAIR GRIFFON: Right.

MEMBER MUNN: To try to codify --

CHAIR GRIFFON: To catch some of those, yes.

MEMBER MUNN: -- how we could do that.

CHAIR GRIFFON: Yes, yes.

Okay. Then 466. Is that okay?

MEMBER MUNN: Yes.

CHAIR GRIFFON: Then 480 and 482 I had.

MEMBER GIBSON: Hey, Mark, back on the 466 --

CHAIR GRIFFON: Yes?

MEMBER GIBSON: -- what about 471 as opposed to that?

MEMBER MUNN: Or in addition to.

CHAIR GRIFFON: Or in addition to.

MEMBER GIBSON: It is a lot shorter work time. It is about the same PoC.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Yes. And it is Paducah, though, instead of Portsmouth.

MEMBER MUNN: Yes, instead of

Portsmouth, yes.

MEMBER GIBSON: Oh, okay.

MEMBER MUNN: Why not both of them?

CHAIR GRIFFON: I mean we can do it in addition to, yes. 471.

So then 480, 482, any questions, reactions to those?

(No response.)

Then I had 485, 487, and 488.

If I'm counting right, that brings me up to 35.

Then I have 501.

MEMBER MUNN: Five oh one.

CHAIR GRIFFON: I know it is a Savannah River again, but it has best estimate on both, yes.

MEMBER MUNN: It is best estimate, yes.

MEMBER GIBSON: Mark, back on 489, have we done any from the Uranium Mill in Durango?

CHAIR GRIFFON: Four eighty-nine?

MEMBER GIBSON: Yes.

MEMBER MUNN: No.

CHAIR GRIFFON: No. I missed that one. Okay. Yes, we should do that one, 489.

So I did 501. Then I went down to 513 was the next one I had.

MEMBER MUNN: I am sorry, five what? I was reading.

CHAIR GRIFFON: Five thirteen. I might have missed a few in here, though. I was running out of time before we dialed in.

You know, actually, 502 is kind of interesting to me, now that I am looking. Five oh two is a Blockson lung, which was not compensable.

MEMBER MUNN: Yes.

CHAIR GRIFFON: He says with emphasis.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Since we hear most of the lung cancers are compensable at

Blockson.

MEMBER MUNN: Five oh two (502).

CHAIR GRIFFON: Five oh two (502).

MEMBER MUNN: And I was looking at 509.

CHAIR GRIFFON: Five oh nine? Okay. And also, 507, is that a new company, the International Minerals & Chemical Corp?

MR. HINNEFELD: If I am not mistaken, it is uranium from phosphate plant.

CHAIR GRIFFON: Is it?

MR. HINNEFELD: I believe it is.

MEMBER MUNN: I don't remember it.

CHAIR GRIFFON: So you said 509, Wanda?

MEMBER MUNN: I had suggested 509.

CHAIR GRIFFON: Yes, 507 and 509.

MR. HINNEFELD: I don't remember ever doing one for International.

CHAIR GRIFFON: Right, I don't think we ever did do that. So I am going to say 507 and 509.

That should bring me down to 513 is my next one.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Five thirteen. Now that gives us 41. But, again, if we get up to 50, it shouldn't be a problem because we are probably going to lose a few.

MEMBER MUNN: Five twenty-two would seem to be a logical choice.

CHAIR GRIFFON: Five twenty-two?

MEMBER MUNN: Yes. Not because of the site but because of the type of carcinoma and the fact it's best estimate.

CHAIR GRIFFON: It is best estimate internal, yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Okay. I've got no problem with that: 522.

The next one I have is 537. Actually, 524 I missed. I am very curious about these couple from Paducah that were less than a year and got over 50. Those may be

quick reviews.

MEMBER MUNN: Yes, that's really strange, isn't it? Yes, 524.

CHAIR GRIFFON: And then 537 was my next.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Actually, I have those four in a row, 537 --

MEMBER MUNN: And 540.

CHAIR GRIFFON: -- 540. Now these are Savannah Rivers again. That is very close to 50.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And it is a best estimate on both parts.

MEMBER MUNN: One over, one under.

CHAIR GRIFFON: So 537, 540. 542 is Mound. Again, best estimates --

MEMBER MUNN: Yes.

CHAIR GRIFFON: -- although overestimates on the internal.

MEMBER MUNN: Okay, 542 and 545.

CHAIR GRIFFON: And 545, yes.

And that's it.

MEMBER MUNN: Yes.

CHAIR GRIFFON: That gives us 47. Now that's a pretty good number.

MEMBER MUNN: That's pretty good.

CHAIR GRIFFON: Yes.

Anything I missed, Mike? Did you have any others that I went by?

MEMBER GIBSON: There was one, 535, the type of job, again, or what they did, mixed resins and impregnated parts with resins.

CHAIR GRIFFON: I know, and it is Pinellas. I don't think we've done many.

MEMBER GIBSON: Right.

CHAIR GRIFFON: You know, if we have done any, we haven't done many. All right, 535.

Any others, Wanda?

MEMBER MUNN: No. I think all that I had mentally set aside --

CHAIR GRIFFON: Okay. I think, if everybody is okay with that -- is John on the line? Did he get on? No?

If that is okay with the rest of the Subcommittee, then I will make this -- well, we are voting on this right now. We are submitting this list to NIOSH, and pending DOL's review of the list, this will be turned over to SC&A as the task for the 12th set of cases, if that is okay with everyone.

MEMBER MUNN: It's fine with me.

CHAIR GRIFFON: No objections heard. I guess we'll pass that.

I will give a report out on the next phone call meeting next week. But, if my count was right, that is 48 cases, and hopefully, we won't lose that many when DOL reviews them to see if any are in the appeals process, or whatever. But we should have enough for SC&A, a good chunk for SC&A to work on. Doug's happy.

(Laughter.)

MS. BEHLING: Excuse me, Mark.

CHAIR GRIFFON: Yes.

MS. BEHLING: Just to answer, we are up to tab 258, and that would leave 42 remaining to get to 300. However, I believe in the 9th set there were two cases that were eliminated. So I believe we need 44, if I am correct.

Is that correct, Doug?

MR. FARVER: Yes, those two cases were eliminated.

CHAIR GRIFFON: Okay.

MR. FARVER: I mean if we are trying to make 300.

CHAIR GRIFFON: So we should be perfect, actually.

MR. HINNEFELD: Very close.

CHAIR GRIFFON: Yes, very close, yes.

MR. HINNEFELD: Like I said, there could be cases on here that have been returned since we selected them, pre-selected them.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: Or there may be cases where Labor has gotten like a post-closure appeal and there is an opportunity it might reopen.

CHAIR GRIFFON: All right, thanks, Kathy.

MS. BEHLING: You are welcome.

MR. HINNEFELD: Mark, I will send you the numbers I recorded.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: So you can verify --

CHAIR GRIFFON: We will cross-check them again.

MR. HINNEFELD: -- and make sure I got them right.

CHAIR GRIFFON: All right.

MR. HINNEFELD: Then I will just get the list out to Jeff. I just wanted to make sure I didn't miss any.

CHAIR GRIFFON: Right. And we

changed a couple of times there, yes.

Okay. All right, that sounds good. Alright. I am just going to save this and then we can move on.

Okay. Now I want to go back to the 6th set of cases, the matrix, and we did work on all these in the April meeting. Unfortunately, I can't seem to find the updated matrix from April. So I have all the entered actions from the 3/12, the March 12th meeting.

So as we go through these, my matrix may be a little out-of-date. So if people have other notes saying that we closed something that I still have open, you know, we will have to just correct that. It shouldn't be too hard, though, because the 6th and 7th sets are near completion.

So does everybody have that matrix open, the latest version that they have, or their notes from the last meeting?

MEMBER GIBSON: That was dated in

April, you say?

CHAIR GRIFFON: Well, the one I have is dated March 12th, '09. It's 6th 20 case matrix, March 12th, '09.

Do you have an April 15th file?

MEMBER MUNN: The title is 6th 20 case matrix, December -- NIOSH, April 15, '09. Updates, but I don't see -- everything I am seeing is -- oh, I see.

CHAIR GRIFFON: The yellow should be the remaining actions, at least in my version of it. The yellow highlighted actions are the ones that remain open, I think.

And the first one I have is 104.7.

MEMBER MUNN: That is to provide the concentration of transuranics?

CHAIR GRIFFON: Yes, this is the transuranic question, the recycled uranium transuranic question.

Stu, I see a note on 12/8 that you are going to look into that, and then there's a 3/12 follow-up that it remains active. I

don't know if you have any other notes on that.

MR. HINNEFELD: I don't have anything newer than that.

CHAIR GRIFFON: Do you have that in your --

MR. HINNEFELD: Yes, I have the file from the staff meeting.

CHAIR GRIFFON: Okay. Maybe just corroborate that with your handwritten note, if you will go back to your notes from the April meeting, because I don't think we resolved that.

MR. HINNEFELD: Yes, it is in my notes, and I have no note about resolving it.

Which site is this? Does anybody remember?

CHAIR GRIFFON: A good question. 104.7, do you have the case?

MR. FARVER: Probably.

MR. HINNEFELD: I mean I can find it. It will take me quite a while the way my

computer is running.

CHAIR GRIFFON: The next one I have, while they are looking up the site, the next action --

MR. FARVER: Superior Steel.

CHAIR GRIFFON: Oh, Superior Steel, yes, that's right.

MR. HINNEFELD: One oh four?

MR. FARVER: Yes.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I can tell you briefly what's gone on on that recycle work.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: We were thinking OTIB-0053 would be the one that would explain everything and it turns out it didn't explain much of anything. It didn't really tell us to do anything different.

So we still need to compile the research that kind of backed up OTIB-0053, which the draft version we got didn't really elucidate on very much. We need to make sure

we are okay on that.

The whole issue is one that I feel pretty good about, that the numbers we are selecting on some of these sites are pretty good. Some sites are more complicated, but when you're talking about an AWE and getting some recycled metal.

CHAIR GRIFFON: So OTIB-0053 is the general recycled uranium TIB?

MR. HINNEFELD: It was, and, you know, we got this and we said, hey, it doesn't explain things as well as we had hoped, and the explanation it does doesn't really give us much -- change anything, and it kind of refers you to site-specific information and things like that.

So I don't know that we are even going to issue 53, but the issue still remains what evidence do we have, which was not stated clearly in that draft for a site, you know, for -- in general, for general use, especially things like AWE. So I will have to see what

we have got.

CHAIR GRIFFON: Yes, the issue is evidence to support the numbers that you selected, the ratios that we selected, right?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Now I am updating this for this meeting live.

The next one I have is 107.4.

And the note I have for 3/12, while I guess you guys are reading, if you have the same copy of the matrix I have, it says that NIOSH provided a response indicating that modeling exposure differently would not affect the outcome. But it says the Subcommittee had remaining concerns about the general guidelines used for this determination, and NIOSH was investigating this and will report back to the Subcommittee.

MEMBER MUNN: Oh, boy.

CHAIR GRIFFON: I've got to admit, you know, I've got to refresh my memory on this one.

MR. HINNEFELD: This was an internal dosimetry finding where the dose reconstruction modeled the bioassay data by a chronic exposure, and the comment in the finding was that, what about a series of acutes? I believe it is because the job classification --

CHAIR GRIFFON: That's right.

MR. HINNEFELD: -- fed into that, that a series of acutes may be a better model for this.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And would they be more favorable?

So our action, which, again, I have not provided anything on yet, is can we provide additional basis for why we chose the chronic versus a series of acutes. What other analyses did we look at?

My actual note was, could we include in the dose reconstruction record an explanation of why we chose chronic versus

serial acute.

CHAIR GRIFFON: Right.

MEMBER MUNN: Do you have the April 15th note that says --

CHAIR GRIFFON: No.

MEMBER MUNN: -- the file, SC&A 6th set, 107.4, ORAU response, April 15, '09?

In quotes: describe the guidance that is used for cases like this.

CHAIR GRIFFON: No, I don't have that.

MEMBER MUNN: I have that over in the original NIOSH response column, instead of in the NIOSH resolution column. I don't know why I do.

CHAIR GRIFFON: So the note says -- can you read that again, Wanda? I'm sorry.

MEMBER MUNN: It's dated April 15, 2009.

CHAIR GRIFFON: Right.

MEMBER MUNN: It says the file, quote, SC&A6thset107-4ORAUresponseAPR15_09,

because it's April 15th, describes the guidance that is used for cases like this.

CHAIR GRIFFON: Do you have that document? Do we have that document?

MR. HINNEFELD: I am sending it now.

MR. FARVER: I believe you sent it before, but it was a while before.

MR. HINNEFELD: I think I did send it, but I am sending it now. So let me try to get everybody on here. I've got all the Board members. I've got Doug and Kathy, Emily.

CHAIR GRIFFON: Doug, what I am going to ask is that you look at that, right? That will be our action.

MR. FARVER: Okay. I am reading it now.

CHAIR GRIFFON: Oh, you got it? Okay.

MR. FARVER: I found it.

CHAIR GRIFFON: I don't find it in my --

MR. FARVER: I believe we've gone over this before. It could be an acute, several acutes; it could be a chronic. How do you know which one is best? Is it the one that gives the highest dose that is more claimant-favorable? Especially like in this case, I think it was two data points over 30 years.

CHAIR GRIFFON: Yes.

MR. FARVER: Now the guidance that Stu is sending, really it is pretty generic.

CHAIR GRIFFON: Yes, this sounds like a familiar discussion that we had before, yes.

MR. FARVER: Sure.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Well, actually, I'm trying to find it, figure out if I've got that folder. I've got one that almost reads that.

CHAIR GRIFFON: Was this case, what was the PoC on this case? Do you recall?

MR. FARVER: I can find out.

MEMBER MUNN: The short message that I have doesn't go back far enough.

CHAIR GRIFFON: No, it doesn't.

MR. FARVER: Thirty-five point five.

MR. HINNEFELD: Actually, I hope I can find that easily.

MR. FARVER: I think I agreed that it could be done either way. It is just a matter of how you determine that --

CHAIR GRIFFON: Right, right.

MR. FARVER: -- when you have similar data.

CHAIR GRIFFON: Yes.

MR. FARVER: And this was a person who is a security guard. His position really hadn't changed over that time period. Is it more likely for a security guard to have one lung acute or multiple chronic? I don't know.

CHAIR GRIFFON: Right, right.

MR. FARVER: If it was a

production worker, I would say it is more likely they are just going to have chronics. But if it is a security guard, I don't think they would be exposed to everything.

CHAIR GRIFFON: What does NIOSH's guidance say? They're pretty generic, right?

MR. FARVER: Yes. It's true, it should be as simple as possible; no more complexity than necessary should be applied. If a quick and simple over- or underestimate can be performed using bioassay data, no further fittings should be tried.

CHAIR GRIFFON: Yes.

MR. FARVER: But if you're going for a best fit, how do you determine what is the best fit when you've got -- almost have no data?

CHAIR GRIFFON: So was this one of those cases?

MR. FARVER: Two data points over 30 years.

CHAIR GRIFFON: Yes, yes.

MR. FARVER: So how do we know what happened in between?

MEMBER MUNN: By the same token, he's on the security force.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Was highly unlikely to be subject to chronic exposure --

MR. FARVER: Well, I don't know. If you talk to security people, they'll say, no, they were even out quite a bit.

MEMBER MUNN: But lieutenants don't. I don't know this site.

CHAIR GRIFFON: Yes, and you don't know if he was lieutenant the whole time, either.

MEMBER MUNN: It's a normal process of hierarchy. No security force that I know of would expect that kind of --

CHAIR GRIFFON: Yes, I am just wondering whether we can take this one, too. That is what I'm trying to figure out.

MEMBER MUNN: Well, how much will

it change anything if we do?

MR. FARVER: Well, maybe it is more dependent upon the work or the occupation, or it depends also on the occupation, and not just assign a quick chronic.

CHAIR GRIFFON: Not just the data, right.

MR. FARVER: Yes.

MR. HINNEFELD: But in this case, there's two data points and they are separated by multiple years. So, I mean, your typical approach, if you were going to place an acute in here, it is the midpoint between -- is an acute exposure at that midpoint, in order to hit that second bioassay data, or just miss it if it was less than detectable. There's going to be this enormous acute intake.

How likely is that to happen without some other indicator that this was a pretty significant event that this person was exposed to? And therefore, there would be

some follow-up or there would be some other records of some kind of an event like that.

I mean at some point you've got to decide which one you're going to do. Are you going to give it a chronic exposure and say that periodic acute exposure is pretty well approximated by a chronic exposure, which in most cases a chronic exposure is more favorable than periodic acutes with the same bioassay data.

So you've just got to kind of decide what you are going to do. I mean there is no real scientific explanation.

MR. FARVER: I guess one way to do it would be to bound it by the -- I won't say the maximum intakes at Savannah River.

MR. HINNEFELD: Yes, but the higher ones?

MR. FARVER: Yes, or percentage, the higher ones.

MR. HINNEFELD: Yes.

MR. FARVER: It will give you a

bounding anyway.

MEMBER MUNN: Since we have clearly talked about this many times before, and since that strange note that I just read from April 15th that says, the file, response on April 15, describes the guidance that is used in cases like this, I don't know what the April 15th response was.

CHAIR GRIFFON: I think that file was the response, right? Yes, that was the response.

MEMBER MUNN: But it describes the guidance, and there's no agreement on the guidance? Is that what I'm hearing?

MR. FARVER: Oh, no, no, the guidance is fine, except it is pretty general guidance.

CHAIR GRIFFON: It is a little too generic. Or that's your opinion?

MR. FARVER: Yes.

MEMBER MUNN: So we are back where we started?

CHAIR GRIFFON: Right and I don't know that we are going to come --

MR. FARVER: I just wanted to bring up the difference in this case where it could be many small or one chronic. In this case, it probably doesn't matter or it may not matter.

CHAIR GRIFFON: Although with two separated that far, like what you said, if you really take the midpoint and assume an acute, it may be that the acutes --

MR. FARVER: And if you look at that --

CHAIR GRIFFON: -- bounding situation, I don't know.

MR. FARVER: -- you say that the intake that that would produce is six times the maximum we have observed at the site, and is unlikely, then you can go back and say --

CHAIR GRIFFON: Or you can say it's so high that alarms clearly would have been going off.

MR. FARVER: We are going to use the chronic.

CHAIR GRIFFON: Yes. It is out of the realm of reasonable, yes.

Stu, did you examine it to that extent? I can't remember.

MR. HINNEFELD: I don't remember. It's been too long since I thought about it very much.

MEMBER MUNN: But the bottom line is we need a response to NIOSH, right?

CHAIR GRIFFON: If I could ask you for that response, that specific one, examine the acute versus chronic. You might have done this already, but just to justify the selection of chronic in this case. We've got the general guidance.

MR. FARVER: And if it were a production worker, it probably wouldn't even be a question.

CHAIR GRIFFON: Right. Yes.

MR. FARVER: So maybe there needs

to be certain occupations identified that are more likely acute than chronic. I don't know.

MR. HINNEFELD: Well, I did find the message I sent on April 15th. I can just resend it. I'm resending that to Board members and Emily and Ted. Do you want it, Doug?

MR. FARVER: No, I've got it here.

CHAIR GRIFFON: So I will leave that part as an action, okay, Stu?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Is that clear? Alright.

That might be it.

I have 118.1. I don't know what site this is. INEL. There it is, yes, INEL.

MR. FARVER: We do agree. We accept the interpretation of reported dose. It has to do with linearity, and a response would be type of film used.

CHAIR GRIFFON: This may be one that we could track.

MR. FARVER: It would be appropriate for that dose range in question.

MEMBER MUNN: My note says no further action.

CHAIR GRIFFON: Okay.

MR. FARVER: I believe we resolved this at the last meeting.

CHAIR GRIFFON: Yes, this is one that was resolved. We met on it.

MR. HINNEFELD: We sent it April 15th. What I think was that, even though it resolved that case, there's still this outstanding issue of linearity of that dosimeter in the range we were talking about. I believe that was the note I took, even though it was off that case.

MR. FARVER: Correct.

MR. HINNEFELD: So on the message I just forwarded there's two files attached. There's the one that specifically was 107.4, but there was also a matrix attached that included some additional response. It was

what Wanda read when she said it was filed under such-and-such.

This 118.1 includes that April 15th of 2009 response from us as well. It refers to a document in SRDB about the INEL dosimeter.

MR. FARVER: I don't have that file. Was it like a Word file?

MR. HINNEFELD: Yes, it is a matrix. It's the matrix. It is a file called sixth -- it's the sixth 20-case matrix.

MR. FARVER: Okay.

MR. HINNEFELD: December 8th, `08, and then there is a response from NIOSH, April 15th, 2009.

MR. FARVER: I've got that file, I believe.

MR. HINNEFELD: And then, again, this is over in our -- same column as our initial response.

MR. FARVER: Okay. All right, I have it.

MR. HINNEFELD: It is not particularly relevant to this particular claim.

CHAIR GRIFFON: Right.

MR. HINNEFELD: If we decide it wasn't relevant, we can move on.

CHAIR GRIFFON: So you added a response in the mail? I'm not sure I have that.

MR. HINNEFELD: It is on the email I just forwarded.

CHAIR GRIFFON: Oh, okay.

MR. HINNEFELD: It is on there, along with the file that was specifically about 107.4.

CHAIR GRIFFON: All right. I'll check that at the break.

But, basically, for this case, it's closed, there's no further action?

MR. HINNEFELD: That's my recollection.

CHAIR GRIFFON: I think Stu is

agreeing with that.

MR. HINNEFELD: Yes. Yes, I always agree with closing.

(Laughter.)

MR. FARVER: And it appears that it is appropriate for their range.

MR. HINNEFELD: That is based on --

MR. FARVER: Based on that document.

MR. HINNEFELD: -- these documents that were cited here.

MR. FARVER: Yes, I think we closed that last time.

MEMBER MUNN: I think we were trying to.

CHAIR GRIFFON: Yes, yes.

Alright. So I'm considering that closed, if I don't hear anything otherwise.

Alright. Look at that; we did one.

(Laughter.)

All right, progress. Almost as much as the Procedures Subcommittee, right?

All right, 118.6. I actually have this closed. I still had some highlighted notes.

SC&A agrees with NIOSH's evaluation. No further action.

All right, that was an old highlight.

MEMBER MUNN: What about 118.1? Is that closed?

CHAIR GRIFFON: Yes, I just said 118.1.

MEMBER MUNN: Oh, I thought you said 118.6. Sorry.

CHAIR GRIFFON: 118.1 was the one we were just discussing, and then 118.6 I had, but it is closed according to my notes anyway.

Then 118.7, the same thing, that should be closed. I have highlighting left on there from the previous meeting.

And that's all I have. Is that

all you guys have?

MR. HINNEFELD: That's all I've got as well.

CHAIR GRIFFON: So we have two left, 104.7. That is the transuranic question with Superior Steel. And 107.4 check out the acute versus chronic for this particular case. We've got the general guidance. And that's it, right?

MEMBER MUNN: So 118.7 is closed?

CHAIR GRIFFON: Do you have something on 118.7?

MEMBER MUNN: Well, it just says, well, last year, last December, action, NIOSH and SC&A to further review.

CHAIR GRIFFON: Yes, from December, but then the 3/12 note said that it was closed.

MEMBER MUNN: Okay. I don't have the 3/12 note.

CHAIR GRIFFON: I just forgot to un-highlight it, yes. The 3/12 note that I

had said, SC&A agrees with NIOSH's reevaluation. No further action.

MR. HINNEFELD: Yes, the complication here, Wanda, is that we wrote, the additional information that we submitted, we wrote on a version before --

CHAIR GRIFFON: That's right.

MR. HINNEFELD: -- the version that Mark sent --

CHAIR GRIFFON: That's right.

MR. HINNEFELD: -- for the April meeting. You kind of have got to open them both and go back and forth.

CHAIR GRIFFON: Right, right. I remember that now.

MEMBER MUNN: Okay. I just didn't have the note. Okay. Great. Thank you.

CHAIR GRIFFON: So do you want to take five minutes? Let's take five minutes. We will take five minutes and then we will work through until lunch.

MR. HINNEFELD: I can use all the

breaks I can get.

CHAIR GRIFFON: Yes. Stretch.

Okay, we're on break. Everybody on the phone, we are going to take --

MR. KATZ: Five minutes.

CHAIR GRIFFON: -- five minutes.

(Whereupon, the above-entitled matter went off the record at 11:07 a.m. and resumed at 11:16 a.m.)

MR. KATZ: We are back again, the Dose Reconstruction Subcommittee, Advisory Committee on Radiation and Worker Health.

CHAIR GRIFFON: All right, we are moving on to the 7th set.

Kathy, are you out there?

MS. BEHLING: I am still here.

CHAIR GRIFFON: Yes, all right. This is your wake-up call. No.

Okay, we're on the 7th set. Again, I think we should be able to get through this before lunch. We have some remaining items, and I will go down my list.

Like I said, apparently my matrix is going back to March instead of April. So I apologize if we have already resolved some of these. There might be a little redundancy, but it shouldn't take too long.

The first one I have is 149.1, the first one on the matrix. I have a note, NIOSH to review SC&A's analysis of badge data as compared to NIOSH model. No effect on the case since the case was compensable.

MR. HINNEFELD: Let me see what I've got. I did, in fact --

MR. FARVER: We're on the 8th set?

CHAIR GRIFFON: I am on the 7th set.

MEMBER MUNN: And the number?

CHAIR GRIFFON: The number, 149.1.

MR. HINNEFELD: That is the 8th set.

CHAIR GRIFFON: Oh, that's the 8th set?

MR. HINNEFELD: That is the 8th

set.

CHAIR GRIFFON: All right, let me go to the 7th. Sorry. I'll try that again.

How about 121.1? I have a note on 3/4/09; this remains an outstanding item for NIOSH.

MR. HINNEFELD: Yes, now let me see what I've got. I sent something on April 15th.

CHAIR GRIFFON: Oh, okay, you were going to look at TIB-0070 and TIB-6000 versus the approach used in this case which was originally done earlier in the notice.

MR. HINNEFELD: And it appears that I didn't send anything.

MEMBER MUNN: I've got another one of those read-only files.

MR. HINNEFELD: I have nothing new on that.

CHAIR GRIFFON: So this remains an open item?

MR. HINNEFELD: Right.

CHAIR GRIFFON: Okay. 121.2, this may be the same thing. Yes, it is the same thing.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: It is the Y-12 case, right?

CHAIR GRIFFON: I'm not sure. Is this Y-12?

MR. HINNEFELD: I wouldn't think 121 would be Y-12. We are talking about using OTIB-6000.

CHAIR GRIFFON: No, right, 6000.

And 121.3, it is still open. I mean I think these are all the same issue, right? Will consider TIB-0070 as it pertains to this case, is what my note says.

MEMBER MUNN: Appropriate data and appropriate method.

CHAIR GRIFFON: Some of these are all the same follow-up for you really, Stu.

MEMBER MUNN: Yes.

MR. HINNEFELD: On 121.3?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Which file? Oh, wait a minute. Wait a minute. Let's get the right one.

MEMBER MUNN: Well, it appears the whole 121.

CHAIR GRIFFON: Yes, 121.1, 2, and 3.

MEMBER MUNN: Yes, and all the rest of them.

CHAIR GRIFFON: No. Some of these, I have SC&A agreeing.

MEMBER MUNN: Yes, one or two, but the issue is all the same pretty much.

MR. HINNEFELD: Yes, I see that now. I've got that file open, and I see what you are doing there.

CHAIR GRIFFON: Okay.

MEMBER MUNN: They are questioning the adequacy of your choice of method or choice of data.

CHAIR GRIFFON: Okay, the next one I have is 122.1. This is this job-related question, validity of the approach, given the particular job on this case.

I think, is this an AWE one also?

MR. FARVER: Yes.

CHAIR GRIFFON: Yes. I think it was this job title that sort of suggested a high level of exposure and did the 95th still down this person.

MR. HINNEFELD: I think I remember this one.

CHAIR GRIFFON: Yes. Yes.

MR. HINNEFELD: I think this was the comment that, since it was an AWE, John would have done the review.

CHAIR GRIFFON: Right.

MR. HINNEFELD: And the comment was, for this person's job, we don't think that this could be decided. You're using the distribution in this dose model. For this job title, we don't think the rate of distribution

is correct. Because he is more highly exposed than most, he should be at the top end.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Our initial take on that is, the way this model was built, the distribution is so high anyway, we think the distribution bounds the most highly-exposed people.

He says, well, it's not really expressed that way. You know, you present this distribution. There is a median or a mean, a median probably or a most probable; it might be a most probable, in the 95th percentile, and you built it that way.

So from that, a lot of the conclusion is some people are appropriately approximated by the full distribution, but certain job titles would be at the high end. So it may be a matter of even just restructuring the site profile, as you do in a dose reconstruction, to see if it is, in fact, really convincing that the dose we would

assign by that midpoint is so high that it bounds the most highly exposed people. Then we would just want to restructure the site profile to more clearly state what we intended to build when we built that.

Because my argument at the time -- I remember this -- my argument at the time was we built the distribution with the idea that it will bound the most highly exposed people, and it doesn't really say in the site profile. So that is the issue, as I recall that.

CHAIR GRIFFON: So it is a little different than -- I'm trying to recollect, too -- I think it is a little different than some of the sites where you have a lot of data from probably less-exposed people. In this case, I think they only modeled the highly exposed, and therefore --

MR. HINNEFELD: If this is the one I am thinking of, it was built, the distribution was built by proximity to a uranium source.

MR. FARVER: A Simonds Saw case.

MEMBER MUNN: Yes.

MR. HINNEFELD: Yes. So rather than having actually film data, we said let's assume that at the midpoint the person was one meter away for ten hours a week, or whatever we said, eight hours a week

CHAIR GRIFFON: Yes, okay.

MR. HINNEFELD: And at the 95th percentile, they were one meter away for 40 hours a week.

CHAIR GRIFFON: Percentage, yes.

MR. HINNEFELD: Those weren't the numbers, but it was like that.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So I think our thought process was that will bound the most highly-exposed person.

MR. FARVER: And this guy happens to be a furnace operator.

MR. HINNEFELD: And this guy is a furnace operator, who was, quite likely, one

of the most highly exposed people.

CHAIR GRIFFON: Right.

MR. HINNEFELD: Yes. So that is the evolution of the comment. So we've had this discussion, but we have never really provided anything more in writing.

CHAIR GRIFFON: Yes, I do remember the furnace-operator scenario that John described, yes.

MEMBER MUNN: Yes, all we need, really and truly, is just your quick summary.

MR. HINNEFELD: Well, yes, if it's convincing.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Right.

MR. HINNEFELD: You know, I never want to take for granted that I know exactly how to pose these things.

(Laughter.)

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: Experience would indicate that I don't.

(Laughter.)

CHAIR GRIFFON: Okay. Alright. Now is 122.3 a similar issue? No, this is slightly different. It's not really talking about the distribution; it is talking about your --

MR. FARVER: And I still think it is going to pass with the job title --

MR. HINNEFELD: It seems pretty similar.

MEMBER MUNN: It turns out to be pretty much the same thing.

MR. HINNEFELD: Although it is similar, but it more has to do with, again, this person's job title would indicate that he would not be exposed to this 50 percent of the time to one, 50 percent to the other, but, more likely, all of his exposure would be to the higher dose.

CHAIR GRIFFON: Right.

MR. HINNEFELD: I believe it is similar, but it is not --

CHAIR GRIFFON: You could probably weave your answers together for those two, yes.

MR. HINNEFELD: I would think so. I would think so.

CHAIR GRIFFON: All right, 122.7 I have.

MR. FARVER: Yes, NIOSH entered a response on April 15th.

CHAIR GRIFFON: Oh, they did give us one?

MR. FARVER: Yes. That day, which is saying we have not gotten a chance to review the responses.

CHAIR GRIFFON: Okay.

MR. FARVER: So that being said, having looked at this, I'm going to forward this to John because this has to do with the thorium inhalation of the furnace operator. So I don't want to make a call on this. This is an SC&A action.

CHAIR GRIFFON: Okay.

MR. KATZ: Is that 122.7?

MR. FARVER: Yes.

CHAIR GRIFFON: One twenty-two point seven, yes.

So the 4/15 response, Stu, you recall --

MR. HINNEFELD: I can work with you offline on this. At the break, I will resend it. Because when I was looking for that 6th set response, I sent a 6th set and I sent three separate messages on 7th-set responses on that same day.

CHAIR GRIFFON: I can remember cutting and pasting these from your document into my matrix, and I don't have that version saved for some reason.

MR. HINNEFELD: I will resend those messages at the break on that 7th set.

CHAIR GRIFFON: Thank you.

MR. HINNEFELD: For the 7th set.

CHAIR GRIFFON: Okay, so that's an SC&A action.

Moving on --

MEMBER MUNN: Those are the files I apparently received as read-only files.

MR. HINNEFELD: I don't know why we made them read-only.

MEMBER MUNN: Well, I just received -- it may be some way I saved them. Who knows?

CHAIR GRIFFON: All right, 125.1 I have.

MEMBER MUNN: Before we leave 122, I was just going to ask, one of the actions preceding had been NIOSH was going to provide a response in the form of a generic white paper. Do we have that white paper?

CHAIR GRIFFON: No, I don't think so.

MEMBER MUNN: That's just one outstanding thing.

CHAIR GRIFFON: There are a couple of these white paper questions.

MEMBER MUNN: Yes.

CHAIR GRIFFON: The ingestion approach, and this is the --

MEMBER MUNN: Inhalation.

CHAIR GRIFFON: -- inhalation of resuspended --

MR. HINNEFELD: This is resuspension.

CHAIR GRIFFON: Yes, resuspension.

MEMBER MUNN: Yes, right.

CHAIR GRIFFON: I believe those are still hanging out there.

MR. HINNEFELD: I believe they're still hanging out.

CHAIR GRIFFON: Yes, 125.1 then. SC&A -- I have a note that says you couldn't find the 1984 dose.

MEMBER MUNN: Yes, but then that's one of the things that was answered in the April 15th --

CHAIR GRIFFON: Was this answered on April 15th? What was the --

MEMBER MUNN: Status. It appears

that the QC file failed to enter annual dose for 1984. This was entered manually on the input sheet. All suggested doses for this claim from all comments neutron for 1961: 303 millirem, 1962: 1,446 millirem, and 1974: 40 millirem. Full-time dose for 1982: 30 millirem, 1952: 60 millirem, and 1984: 30 millirem, and the missed cesium-137 dose, 30 millirem were added, which increased the dose from 23.780 rem to 25.982 rem and PoC from 34.82 percent to 35.39 percent. The supporting files are attached.

CHAIR GRIFFON: Okay. So on 4/15, NIOSH provided that response, right?

MEMBER MUNN: That is correct.

CHAIR GRIFFON: And I will get that later.

But then did SC&A look at that?

MR. FARVER: Yes. I don't know what the original finding was.

CHAIR GRIFFON: Yes.

MR. FARVER: I guess one of the

things I didn't understand about the response was that I guess a 1984 dose really wasn't included?

MR. HINNEFELD: That is correct.

MR. FARVER: Okay. So you were correct on the facts --

MR. HINNEFELD: Correct on the facts of the findings, correct.

CHAIR GRIFFON: So you guys have changed the PoC slightly?

MR. HINNEFELD: Yes, plus several other things. There were other comments. You know what I'm saying? Incorporating the doses associated with all these comments, this is --

MR. FARVER: Yes.

MEMBER MUNN: It doesn't change it even 1 percent.

CHAIR GRIFFON: It is minimal.

MR. FARVER: This is one of these small QC things. The dose just wasn't in the files.

MEMBER MUNN: You missed 25.4,

response --

CHAIR GRIFFON: Wait a second. Let me just make a note that SC&A agrees with this response, just to close it out. Okay.

MR. FARVER: Sure.

CHAIR GRIFFON: So that is closed.

I'm sorry, Wanda, go ahead.

MEMBER MUNN: Oh, no, that's quite all right.

I was just saying, then, if you don't have the April 15 information, you don't have what we got on 125.4, which is here.

CHAIR GRIFFON: Okay, and I'm going to get these. But I will get Stu to email this to me.

MEMBER MUNN: Okay.

CHAIR GRIFFON: That will be easier than trying to copy all that.

MEMBER MUNN: Since mine is read-only --

CHAIR GRIFFON: We didn't go over it. So, 4/15, NIOSH provided an additional

response.

MEMBER MUNN: Yes.

CHAIR GRIFFON: And do you have any reaction to that?

MR. FARVER: Yes. We still contend that it has to do with cesium whole-body counts, and there is a table of predicted fallout values. If the cesium body count exceeds those values, it should be assessed as an occupational exposure. That is the gist of the process.

There is a whole-body count, and you exceeded the fallout values, and it was not assessed. So, really, they didn't follow their own guidance.

The NIOSH response says the doses were a little less than a millirem, and these NCRP levels were not evaluated originally.

CHAIR GRIFFON: But does NIOSH agree that they should have procedurally done this, but it is a minimal effect, but, procedurally, they should have probably

assessed this dose or no?

MR. HINNEFELD: I think, procedurally, it should have been assessed although, in a sense, the procedure says that if it is above the fallout level, you should evaluate it. But this is a fairly complicated response. I'm trying to sort it out here.

It seems to say that when we did that, you know, after that fact, now we have gone and assessed it, and the dose is less than 1 millirem, which we normally don't --

CHAIR GRIFFON: Which means you wouldn't assign --

MR. HINNEFELD: We wouldn't put it in the dose reconstruction anyway.

CHAIR GRIFFON: Right. But you hadn't evaluated --

MR. HINNEFELD: But, again, the response that was on this day, you added the dose from that, and we did that in 125.1. I would have to find out whether that means -- it says, if you do that, it would be 30

millirems.

So unless they are considering it, the entire result could be not considering any background.

CHAIR GRIFFON: Right.

MR. HINNEFELD: You assess the entire amount, considering none of it fallout, but all occupational exposure. It would then be a 30 millirem.

CHAIR GRIFFON: Thirty millirem, right.

MR. HINNEFELD: That is part of the numbers, that was one of the numbers they included in the response to 125.1, and it had that whole string of doses that were added.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: It was 30 millirem of cesium intake.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So it doesn't affect the outcome of the claim. Even if you assessed it as if there were no fallout, this

would be the impact.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I think that is what the response says.

CHAIR GRIFFON: But I think we are all in agreement that it is a pretty low dose being assigned.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: It sounds like procedurally you should have done it. But you couldn't know ahead of time that it was less than one millirem without at least assessing it.

MR. HINNEFELD: Without doing the assessment.

CHAIR GRIFFON: Right. Right.

MR. FARVER: And going back to the original dose reconstruction report, it says the EE had three whole-body counts in June until the termination of employment. There were no positive cesium-137, sodium-24, or zinc-65 bioassays during that period, which is

an incorrect statement because there was 8.4 nanocuries of cesium, which exceeded the fallout level. Then later on there was a zinc-65 which exceeded the MDA and should have been considered as a chronic ingestion in drinking water. I'm assuming this is at Hanford, the Hanford site.

So, really, there were two that should have been considered. Actually three. The other cesium also exceeded the fallout dose.

CHAIR GRIFFON: I guess I am trying to simplify all this. I think it is a procedural -- I mean I think there is, making a decision, they should have done it, but --

MR. FARVER: But, number one, the DR report says that there were no positives.

CHAIR GRIFFON: Right.

MEMBER MUNN: That is incorrect.

MR. FARVER: That is incorrect.

CHAIR GRIFFON: Okay, yes.

MEMBER MUNN: That's the biggie.

MR. FARVER: Yes.

CHAIR GRIFFON: Yes, that's true. Right. So there is more than just the one thing, yes.

I'm just trying to think of how to -- I would like to close this out because I really don't want NIOSH to go back and try to reevaluate the dose. I don't think the dose is the issue. I think it is the other things that have been done.

MR. FARVER: I will say it again. This is QA concerns. When you were reviewing it, you should have looked at that and said, all of these exceed the fallout levels. We should do something.

CHAIR GRIFFON: So, I mean, that is my point. If NIOSH agrees that, based on the procedure, they should have assessed this dose and that there's a misstatement in the DR report, then I think SC&A would be in agreement that we could close this. But I am not sure Stu is --

MR. HINNEFELD: Well, I believe that is the case.

CHAIR GRIFFON: I don't want to put words -- you know, if you want time to --

MR. HINNEFELD: I don't see the zinc actually included as one of the doses in 125.1, but our response does say that if you assess these things less than two millirem before 1961, and then one millirem later --

MR. FARVER: I think the point was that it says they were all less than -- there were no positive bioassays. That is not really a true statement.

MEMBER MUNN: From the outset, before we even set this entire program up, one of our primary concerns was QA. That is one of the things we expect SC&A to find for us, is any QA issue and whether it is common or not.

That particular type of problem has not come up in my memory quite that way.

MR. FARVER: It has come up

occasionally where the fallout value has been exceeded and not assessed.

MEMBER MUNN: Yes, but it's very rare that we have a -- I don't recall having encountered a statement like the one you just gave from the DR report.

MR. FARVER: Oh, where there were no positive bioassays.

MEMBER MUNN: No positive bioassays when we did, in fact, have positive bioassays. That is an unusual finding.

MR. FARVER: I believe that is unusual. It may have come up once before --

CHAIR GRIFFON: Yes.

MR. FARVER: -- but I think that is not usual.

MEMBER MUNN: And, of course, that was our point in having people look at it, is to determine whether the findings were indicative of a trend or whether they were outliers. This appears to be an outlier, but it is there.

MR. FARVER: Stu, is this something you would expect to catch on your reviews?

CHAIR GRIFFON: Stu, if you are ready to say -- I don't want to -- you know, if you want to check back with this person that wrote the original response, or are you comfortable saying that according to the procedure, NIOSH should have evaluated this and there was a misstatement in the DR report, but that the overall dose would have been minimal?

MR. HINNEFELD: I think that's pretty clear. I can interpret this pretty well. I mean it is pretty clear that this shouldn't have had this statement in there.

CHAIR GRIFFON: Yes. No, I mean I just wanted to make sure that you are okay with that.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Then we would close that thing.

MR. HINNEFELD: For this particular finding, there's no additional thing to do, but there's the remaining issue of that, the language of the DR.

CHAIR GRIFFON: Right.

MR. HINNEFELD: It could be a case -- I mean we have seen other cases where the language in the DR, not this exact passage but language in the DR doesn't really match what was done. The numbers are right, but the language in the DR doesn't match the numbers, which gets to an aspect of the quality of dose reconstruction. I mean it is right, but it didn't say it right.

MR. FARVER: Is this segment of the DR, is this boilerplate? In other words, do you select something and it puts this in?

MR. HINNEFELD: It could. See, I don't know.

MR. FARVER: I know there's different templates out there --

CHAIR GRIFFON: Yes, several

templates out there.

MR. FARVER: -- depending on what the case is.

MR. HINNEFELD: Yes.

MR. FARVER: And I don't know if they may have selected the wrong template.

MR. HINNEFELD: Yes. It would seem at some point, though, you shouldn't be saying there are no positive counts if there were, even if the doses were trivial.

MEMBER MUNN: True.

MR. HINNEFELD: I mean I think that is clear.

CHAIR GRIFFON: So I worded it that way.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: If that is the case, then I think we are in agreement here, so we can close this. SC&A agrees with that?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay. All right, so I have it closed out then.

The next one I have -- now, again, this doesn't have the April stuff in it probably, but 125.9.

MR. FARVER: Well, there is 125.6. This has to do with some dates that are listed in the TBD.

CHAIR GRIFFON: Oh, okay, I have SC&A agrees based on current TBD. Remaining question is documenting what approach was used.

MR. FARVER: In other words, the TBD doesn't really match what is in the DR, but this is where they will issue -- what are they called, DR notes?

MR. HINNEFELD: Yes, or guides.

MR. FARVER: Guides or something like that. Apparently between revisions, one or two of these guides were put out, which does have the correct dates in it.

This is where NIOSH provided that document, and we reviewed it. It is in that document.

MR. HINNEFELD: Well, I think we have kind of addressed this by putting in those applicable guides for the site, you know, those DR instructions.

What we are doing now, what we are supposed to be doing --

CHAIR GRIFFON: So in this case you went back and found --

MR. HINNEFELD: We found it. We went back and found it.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: But at this point now, if there are instructions, DR instructions, applicable to the site where the dose reconstruction is from, they are putting those in --

MR. FARVER: Okay.

MR. HINNEFELD: -- into the file. That is what should be --

CHAIR GRIFFON: So, for this, NIOSH provided the interim DR instructions, and SC&A agrees with it?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: That was on the April 15th information, too.

CHAIR GRIFFON: Okay. Alright. I can't believe I missed the April 15th thing somehow.

MEMBER MUNN: Yes.

CHAIR GRIFFON: It is somewhere on the computer, I'm sure.

Okay, now 125.9, is that next?

MEMBER MUNN: Yes, the next one is in the April 15th --

CHAIR GRIFFON: Yes, in the response, okay.

MEMBER MUNN: Additional details on what to address here.

CHAIR GRIFFON: That was April 15th?

MEMBER MUNN: April 15th.

MR. FARVER: Did we give you that information back on the last meeting, Stu?

MR. HINNEFELD: I don't know.

MR. FARVER: Just to give you a little update on what this is about, once again, this is Hanford. In the DOE documents, there were four documented incidents. One was a high dose rate and no bioassay requested. Three others were potential, let's see, elevated airborne, elevated airborne, positive nasal smears. On each of those, it says bioassay requested. These are in the form of little pink slips that were present at the time.

But the dates of the incidents and of the bioassay requested did not match any of the bioassay data. So our concern was do you have all the bioassay results.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Okay. So the bioassay request in the file, but no corresponding bioassay --

MR. FARVER: As I recall, it was an incident form.

MR. HINNEFELD: Yes.

MR. FARVER: And it had all those little boxes, bioassay requests --

MR. HINNEFELD: Okay. So the person made this report, and one of the boxes was bioassay, and he checked yes, and there was no associated bioassay data.

CHAIR GRIFFON: No data associated with it, right. Okay.

MR. HINNEFELD: Okay? That seems clear to me.

CHAIR GRIFFON: All right.

MR. HINNEFELD: Part of our response, though, was while there was not a bioassay after those incidents, there was a later bioassay. Is that true?

MR. FARVER: That's true.

MR. HINNEFELD: So there was an assessment, and your point is if that was, in fact, an intake or just do we make another request for bioassay data?

MR. FARVER: I guess the question

is what happened to the bioassay data.

MR. HINNEFELD: Well, of course, we can't answer the question.

MR. FARVER: No, no, I understand that. Typically, these workers remember when they were involved in something and they submit a sample.

MR. HINNEFELD: Well, if there's an incident report that says bioassay requested and you don't get bioassay data, one of two things happened. Either they didn't get the bioassay sample or Hanford lost the results.

Is that a Hanford case?

MR. FARVER: Yes.

MR. HINNEFELD: So I don't know what else.

CHAIR GRIFFON: I mean it might be the broader question, too, of are you getting all the data from Hanford? Could there be a database of special bioassays? You know, some of those sites have special bioassays --

MR. HINNEFELD: This is true.

CHAIR GRIFFON: -- in a different place than their general, routine bioassays.

MR. HINNEFELD: Hanford's reputation was this was very good. So it could be. I don't know.

CHAIR GRIFFON: But I think your position --

MR. HINNEFELD: Our position was that --

CHAIR GRIFFON: -- is that you got data afterwards, so you can still bound --

MR. HINNEFELD: The dose reconstruction should still be valid because the assumption for that, the chronic assumption for the later bioassay data in virtually every case is more favorable than a series of chronics -- or a series of acutes. Because when you run a series of acutes, you've got that one intake, but from then on, that kind of dominates any subsequent -- we saw them. The tail on that first one

dominates what is later on. So the later ones become sort of vanishing and small with the bioassay, whereas the chronic usually gives you a total intake over the input period that is higher. I mean that is typically what happens.

CHAIR GRIFFON: Yes, right.

MR. HINNEFELD: How does that look on this case? I don't know.

CHAIR GRIFFON: I guess I was looking at it more on the broader question, and maybe you have evidence that in most cases with Hanford cases you are getting the special data.

MR. HINNEFELD: Yes, we can check. I mean, we do have a number of --

CHAIR GRIFFON: That would be sort of the way I would look at it. If it is like it sounds, I'm pretty convinced that if you've got the data afterwards, you probably are able to bound the internal dose. So on other people, on other situations, if you are

missing all that data set, then it could be a problem.

MR. FARVER: Could you put something in your write-up that says the person was involved in incidents --

CHAIR GRIFFON: Good point.

MR. FARVER: -- requested bioassay; that data was not located?

CHAIR GRIFFON: Yes, right. Right.

MR. FARVER: But we found that this is -- we have before and after.

CHAIR GRIFFON: Yes, that's a good point because you've got to remember who this is going to, and they are going to say, I was involved in three or four incidents that are not even mentioned in this.

MR. FARVER: And they do say something like that. They say there were instances found in the files of contamination events that involved the EE. The EE was monitored for more internal and external

radiation. Exposure above the appropriate level of detection would have been measured by the dosimetry and bioassay methods at the time.

So it might just be a little statement in between those two --

CHAIR GRIFFON: Yes.

MR. FARVER: -- about that. Even though bioassay was requested in three instances, it may not have been provided, or something like that.

CHAIR GRIFFON: Yes.

MR. FARVER: Because it should have been addressed, I believe.

MR. HINNEFELD: Yes, different people would argue with that, but I can see your point.

MR. FARVER: Yes. I could argue with myself.

(Laughter.)

MR. HINNEFELD: I do that sometimes with myself.

MR. FARVER: I never win.

(Laughter.)

MR. HINNEFELD: Or I always win, it depends on how you look at it.

CHAIR GRIFFON: So where do we -- I mean I understand both of your arguments. Where do we go with this?

MR. HINNEFELD: Well, our last response was we are not really sure what we are being asked to respond to. I think I have a little better idea now of what it is we are responding to.

CHAIR GRIFFON: Okay. So you are going to follow up on it? Alright.

MR. HINNEFELD: Yes. Yes, I intend, if it sticks in my memory long enough, I intend to give some more clear direction to the people who fill out these responses and come up with something like, respond to these questions.

The questions I have are, should we check with Hanford to see if incident data

might be somewhere else. I think they are going to tell us no, if it is related to an individual, it is in the records. I think that is what they are going to tell us. We can check.

And should the DR mention incidents that, you know, where bioassay was requested but the bioassay is missing, and are we confident that our chronic assumption is, in this case, bound -- what would be the acute intake associated with --

MR. FARVER: Well, not necessarily mention in it in the DR report, but just a note in the file --

MR. HINNEFELD: Okay.

MR. FARVER: -- saying that there were four incidents on such-and-such date, requested bioassay on three of them. The dates do not seem to match the available bioassay data. Just a note in the file somewhere like that.

MR. HINNEFELD: An acknowledgment

that we noticed it and felt that we had done an adequate dose reconstruction --

MR. FARVER: Right, because you would expect them to match.

MEMBER MUNN: Yes, you would.

MR. HINNEFELD: Yes, realistically, you would expect, if you ask for a bioassay, you would expect to be able to find it.

MR. FARVER: Something within a day or two of that date.

MR. HINNEFELD: Yes.

MR. FARVER: Or even a week.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay. 126.2, do we have a 4/15 response on this?

MEMBER MUNN: Not on my file.

CHAIR GRIFFON: Not on this one?

MEMBER MUNN: No.

CHAIR GRIFFON: NIOSH to verify based on work history, OTIB-0002 as appropriate, and the certainty that it is

bounding.

MR. HINNEFELD: Oh, you know what? I have a note in bold on that April 15th that says there are additional files.

MR. FARVER: Right, you sent a bunch of files.

MR. HINNEFELD: Yes.

MR. FARVER: And I looked at them.

MR. HINNEFELD: They don't talk about this?

MR. FARVER: I really couldn't make heads or tails out of what was applied and why.

MR. HINNEFELD: Yes, welcome to my world.

MR. FARVER: This is probably one of those I need to get together with Scott or someone who provided this response.

MR. HINNEFELD: Yes, if you could call Scott directly --

MR. FARVER: Okay.

MR. HINNEFELD: Scott sends them

to me. I'm not sure, he may have to check --

MR. FARVER: I have to find my notes here.

MR. HINNEFELD: Okay.

MR. FARVER: Get with Scott.

CHAIR GRIFFON: Okay.

MEMBER MUNN: The response, which was short, wasn't dated. Please see file SCA125, 126, 127, 130, 135, 136, and 144-additionalresponses.doc.

CHAIR GRIFFON: Got it.

MEMBER MUNN: Yes, I thought you did.

(Laughter.)

CHAIR GRIFFON: 127.1.

MEMBER MUNN: There is an April 15 response.

CHAIR GRIFFON: Okay.

MS. BEHLING: This is Kathy Behling. I think I can take care of this one. 127.1, this was a Hanford PNNL site, and the individual worked in both the 100 and 300

areas. NIOSH did acknowledge that.

However, for this particular case, they assigned the EE strictly to the 300 area. We initially questioned that because of the information she had provided on the CATI report and the information we found in the files, along with the fact that this was actually a revised '03 construction report because of an additional cancer that had been added.

In the original dose reconstruction, NIOSH had included both the 100 and the 300 areas and considered the potential for neutron doses. But in their April 15th response, which I did review and I did go into the files, they indicated that -- and this file is a three-ring binder file thickness, very large -- but it did indicate, they did indicate that on the X-ray records it looks as if she had been in Building 108 and also worked in the laboratory and then, ultimately, in Building 1713.

I was able to confirm that. Looking at the Hanford records, it doesn't appear that there would be a significant potential for neutron doses in those areas. So I do agree with NIOSH's response here.

MEMBER MUNN: That's true, there would not be a neutron exposure there, except under extremely unusual circumstances. I can't imagine.

CHAIR GRIFFON: Okay, so we have agreement on that, and that will be closed then.

MR. FARVER: Yes.

CHAIR GRIFFON: 127.5.

MR. FARVER: That also relates back to the --

MR. HINNEFELD: That is where the person worked, 108. I think 117.1 would be relevant --

CHAIR GRIFFON: The same.

MR. HINNEFELD: -- to that finding.

MEMBER MUNN: It would.

CHAIR GRIFFON: All right.

Okay, 127.8, I think you have probably provided this, but I had NIOSH just send a response.

MR. HINNEFELD: We sent it on April 15th.

CHAIR GRIFFON: Yes.

MEMBER MUNN: April 15, yes.

MR. FARVER: Kathy, have you had a chance to look at 127.8?

MS. BEHLING: No, I haven't.

MR. FARVER: Okay.

MS. BEHLING: Sorry about that. I'm going to have to keep this one open.

MR. FARVER: That's okay. I believe this is partly the long-standing fission products.

MR. HINNEFELD: I think it is. From reading it, that's what it sounds like.

MEMBER MUNN: Yes.

MR. FARVER: And that's why I

would prefer Kathy look at this because it predates me.

MS. BEHLING: Is this one of those issues that you were going to provide a white paper on?

MR. HINNEFELD: Yes. There is kind of, what we call, a global issue. I think the fission-product approach is sort of a global issue, and it may already be identified somewhere as a global issue, if this is a part of that issue.

I say there's a global issue about fission product internal doses, but I'm not sure that everything that everyone has ever commented on fission product internal doses is captured. I guess we try to capture everything that anybody has ever commented on in that, whatever we put together. As you can imagine, it is complicated.

MEMBER MUNN: You have 1954, '39. There's a lot more out there now.

CHAIR GRIFFON: Okay, 127.10.

MEMBER MUNN: April 15th response.

CHAIR GRIFFON: This is also an April 15th response?

MEMBER MUNN: Yes.

CHAIR GRIFFON: And did SC&A review that?

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

MS. BEHLING: I was going to say I didn't review it because I don't think I have it.

CHAIR GRIFFON: Oh, really?

MEMBER MUNN: I have it.

CHAIR GRIFFON: Wanda has it.

MR. FARVER: I wonder where the response is. I do not have that one for 127.10.

MR. HINNEFELD: Well, I am confident it was an email I sent on the 15th. So I will send that to everybody.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: When I have a

break, I will send the emails I sent.

CHAIR GRIFFON: All right.

MR. HINNEFELD: I think it must be there. I can't imagine how else the matrix came to be in my inbox.

MEMBER MUNN: You or I could read it to them.

MR. HINNEFELD: Oh, gosh, really?

MEMBER MUNN: Well, it's a short one.

MR. HINNEFELD: Well, relatively speaking.

CHAIR GRIFFON: Do you want go ahead and read it, or do you want to send it? It doesn't matter to me.

MR. HINNEFELD: I can read it.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: As discussed in the response to finding 127.8, which is the fission products claim we have talked about, undetected internal doses from radionuclides typically detected by in vitro bioassay,

including strontium-90, carbon-14, and phosphorus-32, have been bounded in accordance with ORAU-TKBS-65, which is a Hanford internal Rev 1 -- I think it is Hanford, whatever site we are talking about internal -- by the assignment of an inhalation intake of 1300 picocuries per day and an ingestion intake of 40 picocuries per day of ruthenium-106 type F.

So I mean it speaks to the approach of pick the fission product that is the worst, put the credible total activity for fission products into that radionuclide, and you have bounded the dose. I mean that's supposed to be the approach.

So that is what it says, but I think it must be attached to all those emails. Otherwise, I can't figure out where I got it.

MR. FARVER: Okay, we'll look at those two together then.

CHAIR GRIFFON: All right. And let's see, apparently, there still are some more here. I don't know that we necessarily

have to finish this before lunch.

But I will move to 129.5, and why don't we pick it up there after lunch? Is that all right?

MR. FARVER: Yes.

CHAIR GRIFFON: I will try to get some of these loose ends during lunch, too.

I apologize for not having the April 15th updates on my latest version here, but we will get up-to-speed.

MEMBER MUNN: Well, I apologize for not having the full matrix, too.

MR. HINNEFELD: Well, I think one problem, though, is, again, we entered them on probably the version before your 4/15 version. So you have a 4/15 version --

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: They crossed in the mail.

CHAIR GRIFFON: Yes, and I really think my updated versions are on my other computer.

MR. HINNEFELD: Okay.

CHAIR GRIFFON: Anyway, we will work through it, though. We are getting there.

So we will pick it up on 129.5 after lunch.

MR. KATZ: Go ahead, Kathy.

MS. BEHLING: Just one other question. I am thinking ahead to the 8th set matrix. What version of that matrix are we using?

(Laughter.)

CHAIR GRIFFON: The latest one I have is 3/12. So I may, during the break, look and see if we have a 4/15 one. We may be in the same position of looking at either 3/12 or 4/15, would be the ones you should have.

MS. BEHLING: Okay. All right, thank you.

CHAIR GRIFFON: All right.

MR. KATZ: So related to this, since you guys are now coming into OCAS

directly, can't you just keep a master matrix?

MR. HINNEFELD: Yes, we have --

MR. KATZ: I think if you just had a master matrix on the OCAS --

MR. HINNEFELD: Yes, we can put --

MR. KATZ: You could?

MR. HINNEFELD: I think we should be able to use some business rules here to make sure that we know. See, when you do that, you've got to make sure that only one person tries to pull it up --

CHAIR GRIFFON: That's right. Right.

MR. HINNEFELD: So Word won't stop, I don't think.

MR. KATZ: Right.

MR. HINNEFELD: So we would have to have some business rules about whose turn is it to write to it for this week.

MR. KATZ: Right.

MR. HINNEFELD: And then only that person writes to it.

MR. KATZ: But it would be handy.

MR. HINNEFELD: But we could do that. It would be a place to put it.

MR. FARVER: You could just put the updated version up there, and you can protect it.

MR. HINNEFELD: Yes, we need to use the read-only --

CHAIR GRIFFON: For the read-only version we have.

MR. FARVER: That way, people can still see what's the most recent one, and what actions they have.

MR. HINNEFELD: Yes, actually, you're right. Putting a read-only up like that would be very similar to having like maybe the access to DB.

MR. KATZ: It would be very easy to do.

MR. HINNEFELD: And then people can look at it, and then however we want to deal with updates. Mark, as the Chairperson,

I guess would prepare the next version, put it out there.

CHAIR GRIFFON: We can do that. Kathy has developed a draft database, but --

MR. HINNEFELD: Yes, and the SQL version is there somewhere. In fact, I got an email from the developer today. So I, apparently, have some more work to do with the developer on the SQL version of the procedures DB.

CHAIR GRIFFON: Oh, the procedures DB, yes. We also have a draft --

MR. HINNEFELD: Yes, we have a draft.

CHAIR GRIFFON: -- for the DR, which I still need to discuss with her a little bit further. But in the meantime, we can do the read-only, yes. Yes, we can work through some rules on that.

MR. HINNEFELD: Yes.

MEMBER MUNN: We would hope that, even though the OCAS file was a read-only

file, anyone who downloaded it to their computer would be able to make personal notes on what they have, instead of getting what I get, which is this -- is a read-only file. You can't save the changes you have just made to it.

MR. HINNEFELD: I think there is a way. You open it up and save it to a different name on your own computer.

CHAIR GRIFFON: Yes, I know there is a way.

MR. KATZ: Right.

CHAIR GRIFFON: Save it and change the name.

MR. KATZ: You just change the name.

MR. HINNEFELD: Yes, change the name on your computer.

CHAIR GRIFFON: And you might have to change document properties, but it is pretty easy to get around that.

MR. HINNEFELD: Yes, you may have

to go to the property dialog box and take off the read-only.

CHAIR GRIFFON: Take off the read-only, yes.

MR. FARVER: I have already done it where you just select all and you copy and paste it into another document.

CHAIR GRIFFON: Yes, do a Save As.

MR. KATZ: If you change the name, usually that strips it away.

CHAIR GRIFFON: Anyway, we can work through this. Actually, I think our system was working pretty good until I lost my 4/15 updates. It has been a while since our last meeting. So, anyway, we will work through that.

I think we are ready to break for lunch. Kathy and Hans, you are probably the only ones hanging on.

MS. BEHLING: Yes, we're still here. Going off for lunch?

CHAIR GRIFFON: Yes, reconvene at

1:00, I guess, or a few minutes after 1:00, yes.

MR. KATZ: Five past 1:00.

CHAIR GRIFFON: All right, thank you.

MR. KATZ: Thanks, you guys.

(Whereupon, the above-entitled matter went off the record for lunch at 12:09 p.m. and resumed at 1:18 p.m.)

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

1:18 p.m.

MR. KATZ: This is the Subcommittee on Dose Reconstruction Reviews. We are reconvening after lunch.

Do we have the Behling's back with us?

MS. BEHLING: Yes, we do. We're here.

CHAIR GRIFFON: Okay.

MR. KATZ: Anyone else to check in with?

CHAIR GRIFFON: Good afternoon, Kathy.

(No response.)

No, I don't think so.

MEMBER MUNN: Did Dr. Poston ever show up?

MR. KATZ: I am sure John would have said so if he had joined us.

CHAIR GRIFFON: All right, we are back on the 7th set of cases, finding number 129.5.

Again, I may have to do the same

thing with the April update. If there was an April update, I don't know about it.

MEMBER MUNN: I don't have one on my computer.

CHAIR GRIFFON: You don't have one? So I have a remaining action for NIOSH on this one.

This is fission products stuff, actually, TIB-0054.

MEMBER MUNN: TIB-0054.

CHAIR GRIFFON: NIOSH will compare whole-body count results to the results from TIB-0054, I guess, that chronology.

MR. HINNEFELD: And we don't have anything to add right now.

CHAIR GRIFFON: Yes, okay. So it is just going to remain an open action.

The next one I have is 130.6.

MEMBER MUNN: April 15th addition.

CHAIR GRIFFON: There is an addition? Okay.

Can you summarize that in three

words or less?

MEMBER MUNN: Presumptive exposure to fission products that should be tied to reactor facility, and this one has bioassay monitoring records, different areas.

CHAIR GRIFFON: So this is a question of where the person worked relative to fission product exposure. Is that the issue here?

MEMBER MUNN: His external dose is listed. Bioassay results, calculated whole-body dose, entered in quarterly. No film badge records would be expected for that time. It is a Savannah River case.

CHAIR GRIFFON: Doug, did you get this one?

MR. FARVER: I'm coming up to it here.

CHAIR GRIFFON: Okay.

MR. FARVER: Trying to find out what the finding meant. Oh, yes, I remember looking at this now and getting confused by

it. Yes, I would rather go back to square one, the data files.

CHAIR GRIFFON: Okay. So you've got their response, and you will have to look at it?

MR. FARVER: Yes.

CHAIR GRIFFON: You have to review it further? Alright.

MR. FARVER: It's for an action.

CHAIR GRIFFON: Okay. 131.4.

MEMBER MUNN: My screen doesn't show anything new.

CHAIR GRIFFON: It says, NIOSH will provide a sample characterization, is the last thing I have for 3/12. I don't know if we got any further than that.

MR. HINNEFELD: I don't see anything additional here.

MR. FARVER: I couldn't find any sample calculations.

MR. HINNEFELD: I think that is still ours, though.

CHAIR GRIFFON: Okay. I will leave it as a remaining action for NIOSH.

131.6. Was that updated at all?

MEMBER MUNN: I don't see anything in here on my list.

CHAIR GRIFFON: This says the same thing. NIOSH will compare the whole body counts to TIB-0054 result. That's the same as the last case. So I guess the same method was used.

MR. HINNEFELD: Which one were we just on?

CHAIR GRIFFON: 131.6

MEMBER MUNN: It's the same thing, right?

CHAIR GRIFFON: Yes, it's the same as 130.6, yes.

MEMBER MUNN: Yes, it is the same.

MR. FARVER: Well, it is the same as 129.5.

CHAIR GRIFFON: I'm sorry, yes. Yes, 129.

I'm assuming we haven't got an update on that, right?

MR. FARVER: Right.

CHAIR GRIFFON: Okay. Moving right along, I'm down to 135.1.

MEMBER MUNN: April 15 update. The worker was routinely monitored for external radiation exposure throughout his career. Therefore, the revised doses were base reported dose and missed dose based on actual badges.

CHAIR GRIFFON: Doug, had you received that before?

MR. FARVER: Yes. I'm trying to see if we can find the original finding.

MS. BEHLING: Excuse me. This is Kathy.

I believe that this might have been an issue of blanks in the record and how we treat blanks, and whether they were actually considered missed or they just were not counted at all.

MEMBER MUNN: That's what it looks like. The language of the finding would lead that to be.

MS. BEHLING: This individual worked at Y-12 and K-25.

CHAIR GRIFFON: Doug, do you want a little more time on this? You don't need to be put on the spot here.

MR. FARVER: Yes, let me look at this.

CHAIR GRIFFON: Yes.

MR. FARVER: I think it is just a real simple one.

CHAIR GRIFFON: All right.

MR. FARVER: I'll take that action.

MR. HINNEFELD: It looks like before we said, yes, valid comment.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I don't know how we concluded the person was monitored. The response doesn't say how we concluded that.

So we had a mixture of blanks and zeroes in the record.

CHAIR GRIFFON: Right. And if you just want to walk it through, that's fine, yes, just to make sure.

MR. FARVER: Yes, the part that threw me was their April response. I didn't understand that.

MR. HINNEFELD: The which?

MR. FARVER: Your April 15th response. It looks like it was about ready to close or something from up above. We said it is a valid comment. Okay, well that should have closed it, so I didn't understand. So that is what confused me.

CHAIR GRIFFON: Yes, okay.

MR. HINNEFELD: It seems like there was a question from the December meeting, it looks like, about how was the dose assigned originally, and I didn't know. That looks like what it was.

But it appears that in the

original dose reconstruction a blank was treated as unmonitored. So the person was given an ambient dose, whereas we have concluded since then that they were monitored the entire time. So ambient is not correct even though the record shows a blank. This should get a missed dose for that period as opposed to an ambient.

So that appears to be what the response says.

MR. FARVER: It seems to be the zeroes are blanks.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Yes.

MR. FARVER: I don't understand why we didn't close it. That was all.

MEMBER MUNN: I don't either.

MR. FARVER: We are not going to do any more on it. Let's close it.

CHAIR GRIFFON: Yes.

MEMBER MUNN: It makes sense based on recorded dose and missed dose. That is

what we anticipated should be done.

MS. BEHLING: I think we were questioning if it should be missed dose or co-worker dose.

CHAIR GRIFFON: Co-worker dose, yes.

Why don't we just leave it open and let you review the record, just to make sure we get it right? Because, yes, I agree with Kathy, it was a question of missed or co-worker. Since the person was monitored all the time, when you fill in the gaps, it would be simply a --

MR. HINNEFELD: Then the question would become how do we know it was monitored all the time?

CHAIR GRIFFON: Yes, that's true. Right, right.

MR. HINNEFELD: Because if they weren't monitored all the time --

CHAIR GRIFFON: I guess that is what we are asking.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: They could have not been monitored for good reason. They could have left the location or whatever.

MR. HINNEFELD: Yes, or if they were monitored full-time and those records are missing --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- well, then, how do you know missed is right? Should it be co-worker for the period that is blanks?

CHAIR GRIFFON: Right.

MR. HINNEFELD: That sounds like that is the issue. I'm going to ask how did we conclude --

CHAIR GRIFFON: What set was this again?

MR. FARVER: K-25 and Y-12.

CHAIR GRIFFON: Oh, yes, okay. All right, I'm going to leave that open.

135.4.

MR. HINNEFELD: Okay, we haven't

provided anything.

CHAIR GRIFFON: This is potential tritium exposure at Y-12, right?

MEMBER MUNN: Yes.

CHAIR GRIFFON: That's the issue?

MEMBER MUNN: Correct.

CHAIR GRIFFON: Yes. There was no April update, was there?

MEMBER MUNN: No.

CHAIR GRIFFON: Okay. 136.3.

MEMBER MUNN: That is one of those where the NIOSH information that was sent out April 15th says, please see the file on all these, 125, 126, et cetera, and additional responses. They sent a document out.

MR. FARVER: I didn't see anything in that file that talked about X-ray frequency. That was the only thing.

CHAIR GRIFFON: So that file was sent out for April 15th? That was part of the April 15th? Okay. What site is this?

MR. FARVER: I don't know.

MS. BEHLING: Rocky Flats.

MR. HINNEFELD: Oh, that's an interesting one. It appears that we originally did the dose reconstruction based on the records we got. Is that what's happened?

Yes. It says, however, in this claim, worker's X-ray records were provided.

So we subsequently found out that the records we were given, the X-ray records from Rocky Flats, weren't necessarily complete, that there is a secondary storage that included the actual films at Rocky Flats.

Since then, we have gone and they have actually generated a record from those films that has all of the films. So all of the exams are there, but the record we were getting was not necessarily the complete record. It might have been, but it wasn't necessarily.

So this, then, becomes a question of, now that we have retrieved those other

records, the complete set --

CHAIR GRIFFON: You have to reevaluate this?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I think that has been done. I think we evaluated each time each of those cases when we got them.

CHAIR GRIFFON: Right.

MR. HINNEFELD: But that would be the case here.

CHAIR GRIFFON: Above this it says this case is under PER review anyway. It might be for other parts of --

MR. HINNEFELD: Yes, it could be under PER because it is Super S or something. It could be under it for that.

CHAIR GRIFFON: Right.

MR. HINNEFELD: It's our action to figure out where we are --

CHAIR GRIFFON: All right.

MR. HINNEFELD: -- and what

happened to it.

Actually, well, it would take me too long. I might be able to find out what happened to it, but it would take me too long.

CHAIR GRIFFON: All right. Now this doesn't necessarily carry through to the other ones.

136.4, this looks like --

MEMBER MUNN: It says, see the files.

MR. FARVER: This is where they did send out many files.

MEMBER MUNN: Many files. This one is '06.

CHAIR GRIFFON: Oh, yes, I do recall this one now.

MEMBER MUNN: One, two, three, four, five, six, seven files.

CHAIR GRIFFON: So you shared the IMBA runs?

MR. HINNEFELD: We shared the IMBA runs, right.

CHAIR GRIFFON: Yes, right. And what is the outcome of that? Any outcome?

MR. HINNEFELD: Well, I don't think we've talked about it.

MR. FARVER: We haven't talked about it, and this is one of those where I argue with myself on both sides. So I'm not sure.

If you just look at the data and fit the data, there's many fits to the data that look good. Now how do you show one is better than the other? This is what we come back to. When you are looking at a visual fit, how do you determine one fits better than the other? This has been brought up before.

That is the point I am struggling with. I want to go back and look at this and see if I can come up with a way.

CHAIR GRIFFON: And does NIOSH, I mean you don't procedurally address goodness of fit in any fashion, do you, for your IMBA runs?

MR. HINNEFELD: Well, I don't know for sure.

CHAIR GRIFFON: Yes.

MR. FARVER: It has been talked about by --

MR. HINNEFELD: IMBA will do a best fit.

CHAIR GRIFFON: This is a Liz question.

MR. HINNEFELD: Yes, it's a Liz question. IMBA will do its best fit based on parameters that you give it. Essentially, the amount of error on each bioassay sample, whether it is absolute or relative to the result, what to do about less-than-detectable values, how those are treated. All these things affect how IMBA is going to fit it.

CHAIR GRIFFON: Right.

MR. HINNEFELD: So even using the data with existing bioassay points and even using IMBA's automatic best fit, depending on what you tell it to do, it will fit it

differently, I think. I think that is a true statement.

MR. FARVER: Yes.

CHAIR GRIFFON: I'm pretty sure that's right.

MS. BRACKETT: This is Liz. I heard someone say this is a Liz question.

(Laughter.)

CHAIR GRIFFON: Liz, didn't know you were there.

MR. FARVER: Liz is lurking.

CHAIR GRIFFON: Did you hear the question?

MS. BRACKETT: Yes. It's a professional judgment, and IMBA does the fit. You're right, it is not proceduralized, but the basic guidance about the dose reconstruction is that they should use defaults when possible. If they are not in the general ballpark of it being close, you know, 40 to 60, in that range, then they don't need to do anything more specific.

But as far as them trying to get a best estimate, it is open to professional judgment. I am working on revising OTIB-0060, which is the internal dosimetry '02 guidance document. I'm trying to put in some details. But this is a really difficult thing because different people have different ideas on what is the best fit.

CHAIR GRIFFON: Yes, that's why I asked.

MR. FARVER: So for this particular case it is probably not going to matter because it is a PoC of about 36 percent.

CHAIR GRIFFON: That was my next question.

MR. FARVER: And the dose we are looking at is somewhere between -- I don't know, what did we say, 8 and maybe 30 rem. I mean that is the range. I'm not even sure that is enough to kick it up.

CHAIR GRIFFON: Yes. So with all

the different variations on fit, the worst case would still not affect this PoC significantly; is that what you're saying?

MR. FARVER: I'm guessing that.

CHAIR GRIFFON: Yes.

MR. FARVER: I don't think it would.

CHAIR GRIFFON: Right, right.

MS. BRACKETT: And that's why I try to tell the dose reconstructors not to try to get maybe the very best fit for every case because that would be very, very time-consuming, if we did that on all cases. It is more important that you spend the time on the cases where it is going to make a difference than on the cases where it won't.

So if the defaults don't look too bad and they are not in the ballpark of it making a difference, then they should not be going any further than that.

CHAIR GRIFFON: Yes, I'm asking for this particular case.

MS. BRACKETT: Right. I haven't looked at this one.

MR. FARVER: It probably will not affect this case, but because we have this other issue ongoing about the newness of things, I mean, and professional judgment, and because we have some real data here from this case, I would like to look at it and see if you went and did that for this case and tried to do a really best fit, is there a way you could actually quantify it?

So let's just keep this open so we know to discuss it.

CHAIR GRIFFON: All right.

MR. FARVER: And I will take the action to put something together.

MS. BRACKETT: Actually, I think the dose that we estimated was about 42 rem, and the NIOSH dose was like 18.6 on this particular case.

MR. FARVER: Yes, so you are looking at not too much difference, 20 rem.

I'm not sure that that would kick it up from 35 percent.

MEMBER MUNN: Probably not far enough. Well, it's a good test case to make the decision on.

MR. ELLIOTT: Yes, considering the circumstances of the claim.

MR. HINNEFELD: Yes, the circumstances of the claim.

CHAIR GRIFFON: Yes, yes. All right, so it's worth --

MR. ELLIOTT: But lung would be different than bladder, of course.

CHAIR GRIFFON: Yes, yes, yes.

MR. HINNEFELD: Yes, it is kind of an interesting case.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Well, I won't get into it.

CHAIR GRIFFON: All right.

MR. HINNEFELD: I don't know all the specifics.

CHAIR GRIFFON: And 136.5 is the same conclusion, I think. It is going to remain open.

MEMBER MUNN: It says, we will be providing response next week.

CHAIR GRIFFON: All right.

MEMBER MUNN: That was in that list of things we got.

CHAIR GRIFFON: Is this more of a question, though, is this exactly the same issue or is this a little different? One thirty-six point five; it's a question on the CATI. So it is a question of where they worked there. Yes, it is the workplace issues.

MR. FARVER: This has to do with he worked in a building that caught fire.

CHAIR GRIFFON: Right.

MR. FARVER: So you would expect more of a type S uranium probably.

CHAIR GRIFFON: But NIOSH says they -- NIOSH does agree the report

incorrectly references his work and so -- not the fire. Right. But, apparently, that didn't affect the -- well, I don't know. Stu, did that affect the assessment of intake or the assessment of dose?

You're saying that you agree. NIOSH does agree that the report incorrectly references his work, and somebody said it's just not the fire in 444. I think you're saying it wouldn't cause you to change the model.

MR. HINNEFELD: Right, because there's an issue, I guess, with there is a fairly short latency on this period. It is oddball, but this one worked out.

CHAIR GRIFFON: Oh, okay.

MR. HINNEFELD: The class, type M, actually gave a higher lung estimate than type S. It's an oddball thing because it doesn't usually work that way.

MR. FARVER: Well, it has to do with fitting lung and urine data.

MR. HINNEFELD: Yes, because you've got two sets of data. Anyway, I think it's similar. It's wrapped into it.

In fact, it is tied to the CATI because the person mentioned the fire and the CATI.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: There were two files that you transmitted about type S, which I now cannot open.

MR. FARVER: I would say these two findings tie together.

CHAIR GRIFFON: Okay, so you're going to follow up on them? Yes.

MR. HINNEFELD: I just found a note that we may have something even more recently.

MEMBER MUNN: Yes, you did. You sent two, well, on 4/15, you sent two files on case 136, type S, but I cannot open them.

CHAIR GRIFFON: So you think there was something else sent, Stu?

MR. HINNEFELD: Well, I think something else has been prepared, but it may not have been sent to the Subcommittee.

CHAIR GRIFFON: Oh, okay.

MR. HINNEFELD: It's what I'm figuring out now.

CHAIR GRIFFON: Well, I left it as an SC&A action, but if you have more information, obviously --

MR. HINNEFELD: If I have more, I will get it to you.

CHAIR GRIFFON: Okay. Get it to all of us, and Doug especially, yes.

The next one I have is 137.4. This says, TIB-0017 does not deal with the radionuclide location question or the contamination question, and NIOSH will consider this as an overarching issue.

My last note says -- I'm trying to remember. Does anybody else have any notes on this one?

MEMBER MUNN: No. I'm wondering

why we still had it. Because unless there is a response from SC&A to NIOSH's original comment --

MR. HINNEFELD: Well, we have had discussions. I don't know if this is part of it. We have had discussions before about, what about undetected skin contaminations?

MEMBER MUNN: Yes.

CHAIR GRIFFON: That is what the bottom says there of your May 30th, 2008 response. It was an evaluation of potential dose to the skin from undetected skin contamination.

MEMBER MUNN: Right.

MR. FARVER: This says it has been properly addressed in OTIB-0017.

CHAIR GRIFFON: What is OTIB-0017? I don't recall.

MR. HINNEFELD: Shelter.

CHAIR GRIFFON: Shelter?

MR. FARVER: But that doesn't address the radionuclide location or

contamination.

MR. HINNEFELD: Well, I think there are a couple. I think the two issues, you know, radionuclide location I think relates to sort of the directional -- it is how you account for directional dependency of a film badge to a beta source, you know, I think.

Then the skin contamination question is what about unidentified at the time skin contaminant issues?

CHAIR GRIFFON: I think that is what we were talking about.

MR. HINNEFELD: Yes. My position on that has been I don't know what to do with that. You know, once you start speculating that there was a skin contamination, why didn't you do a response? Why did you stop with one contamination? Why did you stop with a particular period of time?

Unless you decide as a policy for certain sites you are going to say the policy

is that we are going to say that the skin contaminations are this -- otherwise, there is no other way that you can answer it.

MR. FARVER: True.

MR. HINNEFELD: So that is kind of where we left it. In subsequent discussions, I don't know that there's a lot of stomach in OCAS for trying to pursue a policy like that. I think there will have to be other people involved. If we are going to go down the route, it would have to be maybe a discussion strictly of that, and maybe some different people.

CHAIR GRIFFON: And I'm not sure when we say location question if we meant location like physical location of the plant or the badges.

MR. HINNEFELD: Oh, I don't know.

CHAIR GRIFFON: Because it might be just -- I mean, I was thinking, when I read it, I was thinking maybe such a policy for certain areas or processes, you know, people

that worked in certain buildings because it was known.

MR. HINNEFELD: Well, like Fernald. Say there was contamination around Fernald.

CHAIR GRIFFON: Right.

MR. HINNEFELD: A lot of the Oak Ridge operation plants that were essentially uranium plants were treated like chemical plants.

CHAIR GRIFFON: Right.

MR. HINNEFELD: So if some of that stuff was laying around, so what?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So there are sort of a handful of sites that you could say this might be an issue at.

CHAIR GRIFFON: Right.

MR. HINNEFELD: But I think it is that same question.

CHAIR GRIFFON: Yes, yes.

MR. HINNEFELD: I think Kathy may

be more familiar with this exact finding.

MS. BEHLING: Yes, this is a Paducah case. I believe when we refer to location we are referring to buildings because we specify certain buildings in here where this employee worked, and they were doing tech-99 recovery operations there. That is why we were questioning.

CHAIR GRIFFON: Yes, that's what I thought when I read location, yes.

MR. HINNEFELD: In fact, our original response does say an evaluation of potential skin dose from an undetected skin contaminant. Well, it says it should be included.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Now we were planning to do that.

MEMBER MUNN: Could we put workplace location in there if that is, in fact, the case?

CHAIR GRIFFON: Yes, I will

clarify that, yes.

MEMBER MUNN: Because when I read that, to me, deal with the radionuclide location question, I instantly think is it on the shoulder of the clothing or is it in the eye?

CHAIR GRIFFON: Right. No, I can see how that was not clear.

MEMBER MUNN: In the nails or what?

CHAIR GRIFFON: Yes. I would put workplace location in there.

MS. BEHLING: This is another area I have written down that NIOSH might write a white paper. I don't know why.

CHAIR GRIFFON: That is why this came up. It says, overarching issues.

MS. BEHLING: Okay.

CHAIR GRIFFON: Which I guess is where we left it, Stu that you said you knew it was kind of a policy question and you would have to go back and think about it more.

MR. HINNEFELD: Yes, and I would have to say that I think we will have to give this to some of the key people in the room about how to proceed with this, if need be.

I'm certain I don't know how --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I wouldn't want to make that call for OCAS.

MEMBER MUNN: Well, have we captured the fact that this issue is being addressed in overarching issues?

MR. HINNEFELD: Well, see, I'm not even sure it is on that. You know, there is sort of a list of overarching issues. I'm not sure if this is on there yet.

CHAIR GRIFFON: Yes, I am not sure this made the list yet.

MR. HINNEFELD: Once it is there, you feel like you have got to do something, and I am not so sure right now what to do. If you are talking about unidentified skin contamination, I don't know -- I mean most of

the things on the overarching issues, we feel like there is a technical resolution. There is a way to resolve those kinds of cases. I don't know of a technical resolution to this.

CHAIR GRIFFON: Yes. I know you are thinking of it globally, but I think this came up specifically because of something in this case where the guy was involved in the tech-99 recovery.

MR. HINNEFELD: Tech-99, yes.

CHAIR GRIFFON: I don't know what the CATI said, but maybe it was something that he alluded to that they weren't monitored or whatever, you know. So maybe it is not -- I don't know. I can see the reluctance to make some kind of global policy about it, but maybe it is more of a work site-specific issue, you know.

MEMBER MUNN: Or maybe even on an individual case.

CHAIR GRIFFON: Right, right.

MEMBER MUNN: Certainly, how many

cases are you going to get where you have both the technetium and thorium question about potential contamination on skin and clothing?

So how are we going to resolve it?

CHAIR GRIFFON: Well, NIOSH is going to follow up on it.

MR. HINNEFELD: We just need to sort it out. I need to start asking what did the finding actually say.

CHAIR GRIFFON: Right.

MR. HINNEFELD: You know, what is the basis of it? And what can we do about it? If it is strictly a matter of tech -- I mean if it is a question of the person was in a radiation field, a beta radiation field that included some contribution of tech, and their badge was calibrated for the thorium-234 beta, which is a much higher energy, what are you going to do about that? How do you deal with that? Which is some sort of assessment of the badge because probably it is going to be less responsive to the tech dose, in effect. It is

going to be hard to see a tech.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Right.

MR. HINNEFELD: How do you deal with that? If it is an issue, if it is a contamination issue, a skin contamination issue, that is a different issue.

CHAIR GRIFFON: A different issue.

MEMBER MUNN: It is.

MR. HINNEFELD: So I just need to go back and see what it is.

MR. FARVER: As we move on to the next, there's a couple more findings in this case that I was going to talk about now.

CHAIR GRIFFON: Yes, on 137.6 --

MR. FARVER: So he was putting on roofs.

MEMBER MUNN: This specific case you're talking about now?

MR. FARVER: He was the groundskeeper, maintenance, and mechanic. Apparently, he had many jobs over the years.

Cutting cells, mowing, sandblasting, wetting down roofs, and grinding them up, putting new roofs in old buildings. So this guy was all around, which makes it even more difficult.

CHAIR GRIFFON: So he was a roofer? I'm sorry --

MR. FARVER: Well, he was in everything --

CHAIR GRIFFON: We had a little sidebar going.

MR. HINNEFELD: It sounds like he was a laborer because laborers are just doing everything. What did you say most of the stuff he was doing, you said --

MR. FARVER: Everything from mowing to cutting out cells, to wetting down roofs, grinding up the roofing when they put on new roofs.

CHAIR GRIFFON: Cutting out what?

MR. FARVER: Cutting out cells.

CHAIR GRIFFON: Cells?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay. Like cells on the gaseous diffusion. Yes, that is important for technetium, yes.

I mean that's where they had a lot of the technetium was in the seals and stuff with the -

MR. HINNEFELD: And it was in a cascade at different places.

CHAIR GRIFFON: But the seals, it tended to collect there. We know that issue.

MR. HINNEFELD: They would get into it and didn't know they were into it sometimes.

CHAIR GRIFFON: Right, right.

MR. ELLIOTT: And the seal would pull out, and there would be those, what they call, puffs and great smoke.

CHAIR GRIFFON: Yes, yes.

MR. ELLIOTT: Just a puff.

MR. FARVER: This is more of a unique case.

CHAIR GRIFFON: Right.

So when you look at it, Stu, definitely think about is that a case-specific thing or maybe it's not a global issue here per se.

So does it still apply on 137.6?

MR. HINNEFELD: I think it is the same thing. Our action was, we have to look at a program.

CHAIR GRIFFON: I mean this is for the internal dose, the appropriateness of solubility.

MEMBER MUNN: Well, yes, and they responded about solubility.

CHAIR GRIFFON: Oh, you did?

MEMBER MUNN: They determined on April 15th about evaluating potential types and choosing which results result in the highest internal dose.

CHAIR GRIFFON: Is that 4/15? Okay, yes.

Did you see this response, Doug?

MR. FARVER: I saw the response.

I didn't see -- well, I don't know if there were any files for this one that were sent. I don't believe so. So it is going to have to go back to the original data. So I will look at this one.

CHAIR GRIFFON: The IMBA runs weren't in -- were there any IMBA runs or maybe it wasn't done?

MEMBER MUNN: In another case, 137.

CHAIR GRIFFON: Yes, 137.6.

MR. HINNEFELD: Well, I mean, chances are it would include the IMBA run that was used, but not necessarily another -- I will decide if it will be able to run.

CHAIR GRIFFON: Right, right.

MR. FARVER: I mean that is kind of what it says in the finding, that there was no real basis for selecting F. It really wasn't shown in the records why F was selected.

CHAIR GRIFFON: So, SC&A, you are

going to review this?

MR. FARVER: I am going to have to look it up.

MR. HINNEFELD: Is this systemic or does the cancer --

CHAIR GRIFFON: We are just talking beta dose.

MR. HINNEFELD: But that really only enters into uranium.

MR. FARVER: Skin.

MR. HINNEFELD: It's skin?

MR. FARVER: Skin.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So internal would have to be systemic. It would have to be systemic. You get a skin dose from internal. So there's usually not a lot of difference.

CHAIR GRIFFON: Right.

MR. HINNEFELD: If it's systemic, it's systemic, and it's a certain amount.

MR. FARVER: No, this question just went back to how do you know you are

selecting the most claimant-favorable solubility class if it is not shown? We have had that discussion before.

MR. HINNEFELD: Yes, but, I mean, if you are doing a dose, if it is based on bioassays, you know, the urine data -- I don't know what it is based on, but if it's based on urine data --

CHAIR GRIFFON: It's probably based on urine data at Paducah, I would think, right?

MR. HINNEFELD: I would think so. A particular set of bioassay data, urine data translates into a particular systemic data. It is systemic uranium, which is going to be distributed in the same manner. So there's really not much difference, given the amount systemic is going to be and what it is.

MR. FARVER: I'll go back and look at that.

MR. HINNEFELD: Okay.

MR. FARVER: It's probably --

CHAIR GRIFFON: The original question really was relative really to showing the different --

MR. FARVER: Between F and M.

CHAIR GRIFFON: -- different runs, right. I mean, yes, this is kind of how it came up.

MR. FARVER: I'll just go back and then run type N and compare the doses.

CHAIR GRIFFON: Okay, yes. Yes. That's fine.

All right, 137.7, internal dose from fission products.

MEMBER MUNN: It also has an April 15th.

CHAIR GRIFFON: Okay.

MR. FARVER: I do have a question about this one. The question is, I couldn't find anything in the Y-12 technical basis about their mobile counter. Is it in the Y-12 technical basis or is it in the -- I didn't find it in the Paducah one, either.

CHAIR GRIFFON: Well, yes, I don't know where it is, but it's --

MR. FARVER: I'm sure it is somewhere.

CHAIR GRIFFON: Yes, they definitely had the unit go to Paducah, yes.

MR. HINNEFELD: Well, I would bet that this isn't our site profile. I would bet this was the Y-12 technical basis document. I would bet that's what that is.

MR. FARVER: Okay. So is there any documentation of the Y-12 counter?

MR. HINNEFELD: We should have. I mean it should be referred to.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: We can look. I can try to find if it is in SRDB and what the reference number is.

MR. FARVER: No, I just couldn't find it. I mean I'm not saying that your response is wrong. It is just that I couldn't find it.

MR. HINNEFELD: I am just guessing here that the Y-12 internal dose, that the technical basis document we referred to in our April 15th response is not the section of the site profile because DOE sites wrote things called technical basis documents.

MR. FARVER: Sure.

CHAIR GRIFFON: Oh, I see. Yes, yes.

MR. HINNEFELD: And I suspect that's what it is talking about because that is where Y-12 would be likely to talk about that.

MR. FARVER: But is it talked about in any of the NIOSH documentation that has been written?

MR. HINNEFELD: That we have written?

MR. FARVER: Yes. The mobile counter.

MR. HINNEFELD: We wouldn't have a TIB or anything about it. I don't know that

we have written anything about it. But we should have, I would think we would have copies of those documents that we're referring to. That would then allow us to -- it should be in SRDB with a reference number that we could look at it and see it.

MR. FARVER: Okay.

MR. HINNEFELD: I'm relatively familiar with it. I mean I just printed out this whole, big, long list of radionuclides.

MR. FARVER: So when you do a DR then, does that show up in the references?

MR. HINNEFELD: Well, do you mean would the --

MR. FARVER: Would the normal counter reference show up in a DR report?

MR. HINNEFELD: Probably not. Probably not.

MR. FARVER: Okay. I am just wondering how you would get back to that reference.

MR. ELLIOTT: Would it be in the

dose information we've got?

MR. HINNEFELD: Well, I mean the printout. It is in the printout of the data reported, the in vivo. It could be in the DOE response, in part of the file. It could be. It wouldn't necessarily be. It depends on how the site is providing it.

The in vivo counter, the global in vivo counter printed out, quote, activity for all these different radionuclides based on a region of interest. No matter what the counts were in there, it printed it out with no indication of what the background is, you know, what the background of the body and the chamber is, none of that.

So it just would print out an activity. Some sites may have recorded all of those into a person's dose record. Some may have just said, well, we only have uranium here, or only uranium and thorium here. I will only record those numbers into the record.

CHAIR GRIFFON: The ones of interest, right.

MR. HINNEFELD: Some sites may have taken that printout from the in vivo counter and put it in the employees' files, in which case you would have a whole long list of them.

So it is hard. You know, each site's recordkeeping would indicate --

MR. FARVER: Well, that's what I was asking. Is it discussed in the Paducah technical basis, what they did?

MR. HINNEFELD: Now when you say, technical basis, do you mean --

MR. FARVER: No, a site profile.

MR. HINNEFELD: I don't know. I don't know.

MR. FARVER: Okay. I didn't see it. That is why it would be nice to have a little blurb in there saying they used a Y-12 mobile counter.

MR. HINNEFELD: And here's a

reference to find some more information.

MR. FARVER: Yes, the reference would be to the site profile.

MR. HINNEFELD: Yes.

MR. FARVER: I was just wondering how you could trace it back, and that would be the way.

MR. HINNEFELD: I don't know. I can find out. I think, certainly, it would be worthwhile. I would think that the technical basis -- I'm sorry -- the site profile would say in vivo counting during these years was performed with the Y-12 in vivo counter. I would think that it would say that.

Now whether or not it would then include a reference that would give the technical description of its capabilities, I don't know if it would say that or not. I would think that the site profile would have said that. That's the way it works.

CHAIR GRIFFON: Well, maybe you can talk offline about the reference, get back

to Doug on the reference, and you can follow up on this finding.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Or the NIOSH response.

MR. HINNEFELD: And I can take it back to us, look, how can we improve the trail for technical information on the in vivo --

CHAIR GRIFFON: And that may be the only outcome of this, but I guess, at least for now, let Doug see the reference.

MS. BEHLING: Now we're still on finding 137.7?

CHAIR GRIFFON: Yes.

MS. BEHLING: Okay. I thought in this individual's file, the DOE file, we had both in vivo and in vitro monitoring for fission products. That is why we were questioning because, typically, when the individual is monitored, there is some missed dose calculated. In this case, it was both in vivo and in vitro. So I think they would have

gone out also.

MR. HINNEFELD: Really?

MR. FARVER: It says that there was both in vivo and in vitro monitoring.

MEMBER MUNN: Yes, that's what it says in the response from NIOSH.

MS. BEHLING: I mean, if we are going to be consistent with what we do in other cases, generally, even if it's less than the MDA value, usually, because he was monitored, they will still calculate a missed dose.

I don't know how relevant it is going to be, you know, dose to this case, but it is more, I thought, something more of a procedural issue.

CHAIR GRIFFON: Yes. So that is sort of a second with respect to this, right?

MR. FARVER: Actually, that is part of the primary aspect.

CHAIR GRIFFON: That's a primary aspect, yes.

MR. FARVER: I think the secondary one is if you want to talk about the Y-12 global counter, you know, if you want to discuss all that somewhere, about them only recording certain nuclides. I would suggest it go in a little blurb in a site profile.

CHAIR GRIFFON: The 4/15 response, does that address the urinalysis question? No?

MR. HINNEFELD: I don't think so.

CHAIR GRIFFON: No? So maybe there's like a dual follow-up here. I mean, is this the same question that we had before, that there are results that appear to be positive results that weren't assessed as far as dose, even though they might be fairly small?

MR. HINNEFELD: Well, in vitro bioassays, whether it was positive or not, when you do in vitro for fission products, then that argues against the conclusion that the cesium in vivo data is only there because

the mobile counter spit it out.

CHAIR GRIFFON: Right. Yes, yes.

So I will put a NIOSH follow-up on that as well.

Okay, we're getting there. 137.8.

MEMBER MUNN: An April 15th response.

CHAIR GRIFFON: There is an April 15th response?

MEMBER MUNN: Yes.

CHAIR GRIFFON: Okay.

MEMBER MUNN: A significant one.

CHAIR GRIFFON: Did you look at this response, Doug?

MR. FARVER: Yes. The concern is that the CATI report, the individual indicates he had to wet down the roofs of the buildings and grind them up, put new roofing on the buildings, and when he did this job, his face and arms got burned because the dust got into the pores of his skin.

So the concern here is low-energy

beta radiation since we have a skin cancer case.

So what do you do about it? Should there be some calculations done? It is probably not going to be caught up in the routine dosimetry a person is wearing, which was a statement that was made in the DR report.

Dosing would have been received, and these incidents would have been reported in the dosimetry records. Probably not.

CHAIR GRIFFON: Do we have any information on the location of the cancer, the skin cancer? Was it on his face?

MS. BEHLING: On his face.

CHAIR GRIFFON: Yes, okay. So it's definitely relevant.

MR. FARVER: I read the response, and they talk about cutting out cells and things. But, still, maybe it does need to be assessed somehow, and then that comes back to, okay, how do you do that?

CHAIR GRIFFON: Right.

MEMBER MUNN: Well, the NIOSH response then says, a direct and unmonitored skin contamination dose could be concluded appropriate since no specific information is available that exactly meet the criteria. Whether it is performed work or was it involved in an incident? With the technetium recovery areas, during the appropriate time period, the work cutting up the cells was discussed in the report, but it was assumed that the employee's monitoring was adequate.

The report would have been stronger if it had contained an evaluation of the potential for unmonitored skin contamination as it relates to the work and the cell maintenance work.

MR. FARVER: Well, I mean, if he was doing roofing, were there any Tc releases he would have gotten on the roof?

MEMBER MUNN: As I was interpreting what I just read, it says there

is no information that indicates that there was any kind of technetium incident recovery during the time periods that were appropriate. It says so.

MR. HINNEFELD: Okay. Is the basis for this the statement in the CATI that he was removing this --?

MR. FARVER: Yes, that's what triggered it.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: And then he replaced the roof and the skin on his face was burned because that got on his skin?

MR. FARVER: That's what triggered it.

MR. HINNEFELD: We're not really talking about radiation burn to the skin, are we?

MR. FARVER: Possibly not.

MR. HINNEFELD: I mean you're talking about over 100 rads or something for that.

MEMBER MUNN: Yes. Yes, I don't think so.

MR. HINNEFELD: I mean there are chemicals or something like that that could have been introduced, I would think.

CHAIR GRIFFON: Right, but he may be correct about being contaminated in his face.

MR. HINNEFELD: It would seem to me that a mixture of stuff --

MR. ELLIOTT: It would burn exposed skin.

MEMBER MUNN: Yes.

MR. HINNEFELD: It would seem to me that there is probably a better chance for getting into that than --

MR. FARVER: I know, but how do you handle it when a person makes statements like this? I mean I know the roofs at K-25 were contaminated when they went to replace them.

CHAIR GRIFFON: Yes. Yes, sure.

MR. HINNEFELD: Yes, Fernald's were, too.

MR. FARVER: So these people have worked around that.

CHAIR GRIFFON: Yes, I mean, aside from the burn part, I think that the person's account of getting a lot of dust in his face is probably accurate. Now did it result in a significant skin dose? Who knows?

MR. HINNEFELD: I don't know where we go. I don't know where we go.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Again, to me, this sounds a lot like not being undetected skin contaminants, which we were talking about earlier -- I don't know where you go with it.

CHAIR GRIFFON: Right, right.

MS. BEHLING: And I guess it does go back to Finding 137.4, where we previously detected. But we also pulled a few sentences out of the Technical Basis Document that specifically say some skin contamination

events on tech-99 could have occurred without being detected at the time.

Now I don't know what time frame we are talking about here. So I would have to go back. But we do have some quotes in here from the TBD that also support our finding.

CHAIR GRIFFON: Well, this is the whole issue of tech-99 really wasn't recognized at the site for a while, and then it became a hot issue after a certain time period.

I don't know if Larry knows exactly the date and stuff, but that might be the time period referenced there in your quote.

MEMBER MUNN: Yes.

CHAIR GRIFFON: But this could have happened after that time period. So I don't know.

MEMBER MUNN: The whole business of saying something could have happened somewhere at some time is far, far too

amorphous to try to attach a, yes, in that case, therefore, statement.

CHAIR GRIFFON: But it sounds like he is being fairly specific. I think we need to go back and say, if this was in 1990 on the roof, at that time period, you might be able to say measures were in place that would make this highly unlikely.

MR. HINNEFELD: The best you could hope for would be to have a time frame when, for instance, once it was there, but before it was particularly recognized in the work --

CHAIR GRIFFON: Exactly.

MR. HINNEFELD: If you had the time frame and if you were to have something based on some experience and some indications that this is a reasonable event --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- to me that is the best you would hope for. But, again, that is policy; there is no technical argument to be made.

CHAIR GRIFFON: No, right. I know. I know.

MEMBER MUNN: No.

MR. ELLIOTT: What's the PoC?

MR. FARVER: Forty-three percent. Oh, no, let's see if I'm on the right one.

CHAIR GRIFFON: I mean the exposure, well, who knows, but the CATI says in the face, and the cancer was on the face.

MS. BEHLING: Forty-three percent. You're correct, Doug.

MR. FARVER: Forty-three percent.

MR. ELLIOTT: So could you come at it with a calculation trying to figure out how much technetium exposure you would have to have --

MR. HINNEFELD: Well, you might be able to do that, I mean if you go through it case by case. But, then, what do you get when you get to a 49.4 percent one?

MR. FARVER: The employment period is 1974 through present.

MEMBER MUNN: So the key really and truly is --

CHAIR GRIFFON: 1974, it might have been there, yes.

MEMBER MUNN: What was the time?

MR. ELLIOTT: When he did this activity.

CHAIR GRIFFON: When he did the roofing stuff.

MEMBER MUNN: If it occurred much later, then --

CHAIR GRIFFON: It is unlikely.

MEMBER MUNN: -- it is unlikely.

MR. HINNEFELD: To have that much of a concentration.

MEMBER MUNN: Yes.

MR. HINNEFELD: The roofing doesn't seem like that good of a candidate to have the concentrate of tech.

CHAIR GRIFFON: At that time, right.

MR. HINNEFELD: There might be

some tech along with uranium, but I would think you would have mainly uranium, and that the concentrate of tech exposure would be more likely to occur in cascade work. That would be my take.

CHAIR GRIFFON: The cutting of the cells. Yes.

MR. HINNEFELD: I don't know. To me, it is a fun, philosophical discussion, but I don't know where you end up.

MR. FARVER: And I am not familiar with the buildings at the Paducah, C-420, and C-410.

MR. HINNEFELD: No, I don't know those.

CHAIR GRIFFON: Is he saying C-410 and 20?

MR. FARVER: Yes, the C buildings. Those are process buildings?

CHAIR GRIFFON: Some of the nastiest buildings there, but I don't know whether they had tech in them as much.

MEMBER MUNN: Well, 340, 412, 410, 600.

CHAIR GRIFFON: Yes, 410 and 420 were the fluorination buildings.

MR. HINNEFELD: Oh, no.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I had a bad experience with steam plant ash which came out of fluorine. A major portion of my life for a couple of years.

CHAIR GRIFFON: Oh, the ash from Paducah, yes. Yes, you know that stuff, yes.

MR. FARVER: Even though the dose reconstructor may understand some of these concerns, there is not a lot of records or no notes to follow. In other words, if he could look at that and say, well, his employment period during this time of the roofing was such-and-such a date, and therefore, we do consider it --

CHAIR GRIFFON: Yes.

MR. FARVER: -- then all of this

would go away.

CHAIR GRIFFON: Yes. For me, I think this deserves a little more examination of the specifics of the guy's job, time period, et cetera, before we just dismiss it. That's my opinion.

MR. FARVER: Yes.

CHAIR GRIFFON: I'm curious, I don't have the case in front of me, but if there were any incident reports at all in his file. I know this is all out of the CATI, but was there any actual, you know, reported incidents or whatever? Probably not, but I'm just curious.

MR. FARVER: Gee, I don't know. I don't have the files here.

CHAIR GRIFFON: Anyway, so we have a NIOSH response.

Is this a NIOSH follow-up or kind of both follow-up?

MR. HINNEFELD: Well, I am including it in what we're -- we have some

other things to look into on 137.

CHAIR GRIFFON: Right.

MR. HINNEFELD: I'm including it in that.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: If there is more we can do here, particularly in terms of the timing, potential timing, of the exposure.

CHAIR GRIFFON: The timing of these exposures was relevant to radiological policies, yes, seriously.

MR. HINNEFELD: I don't know where else to go with it.

CHAIR GRIFFON: All right. Yes, I know. I agree.

MR. FARVER: Yes, I think this goes back to the inadvertent skin exposure. What do you do? And how do you determine it?

MR. HINNEFELD: Yes.

MR. FARVER: It just almost seems like, when they make specific statements in there like that, that somehow it should be

addressed --

CHAIR GRIFFON: Yes.

MR. FARVER: -- because they are going to know what statements they made.

MR. HINNEFELD: To that extent, that's a good point. I made this statement in the CATI, and they ignored it, if you don't say anything back to them.

MR. FARVER: Yes.

CHAIR GRIFFON: Okay, let's see, I am down to 144.2. We're almost at the end of this matrix, Larry. I'm sorry.

Was there a 4/15 response on 144.2?

MEMBER MUNN: No. I was just looking at 143.1.

CHAIR GRIFFON: Oh, is there something I missed?

MEMBER MUNN: Let's see. What follow-up?

CHAIR GRIFFON: 143.1?

MR. HINNEFELD: 143.1, Mark's

version and our comments were not written on it, is that it is closed because it falls in the SEC class.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Thank you.

CHAIR GRIFFON: Right, NIOSH agreed, but then there was no further action because it falls in the SEC class anyway. Okay.

So now I'm up to 144. -- What was it? -- 144.2.

MEMBER MUNN: Apparently, in .1 we said SC&A is going to review the whole case.

CHAIR GRIFFON: Oh, did we?

MEMBER MUNN: I thought.

CHAIR GRIFFON: Well, I have, on 3/12, for 144.1, SC&A reviewed the NIOSH calculations and agreed that it was done in accordance with TIB-0017. That was 144.1.

MEMBER MUNN: Yes.

CHAIR GRIFFON: So I left that as no further action. Is that right?

MR. FARVER: Yes.

CHAIR GRIFFON: Yes.

MEMBER MUNN: Yes, there is an April 15th response on 144.2.

CHAIR GRIFFON: Right. Okay, there is. So 144.2, there was an April response.

Doug, did you look into that?

MR. FARVER: Yes.

CHAIR GRIFFON: Okay.

MR. FARVER: Yes. Apparently, they needed to modify or change their tables. It has to do with the maximum doses. Relies on the ambient dose, and Table 4-225 -- the maximum for each row and the maximum for the table was used.

So I went back and looked, and then they said they are going to correct it in the next revision to the TBD. So that is fine.

CHAIR GRIFFON: So SC&A is in agreement?

MR. FARVER: Yes.

CHAIR GRIFFON: So that one is closed. Okay.

And that's it, right?

MR. HINNEFELD: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: All right, we made it. Everybody looks so chipper.

(Laughter.)

Well, let's see, I wanted to move up on the agenda this topic because Larry has been patient all day waiting for us, and really here for probably one primary topic of interest, which is the discussion of the Summary Findings in our First Hundred Cases Report, and what further we can do with this Summary Findings, what the Board can say about those Summary Findings.

So I thought we would at least have an initial discussion here on that, and I'm not sure we are going to finish today with a recommendation to bring back to the Board,

but at least have some initial dialogue on that.

I actually would love to have John on the phone for this, too, but I don't think he has joined us yet.

Anyway, I would actually like, Larry, if you wouldn't mind, sort of refreshing us from what we said at the Board meeting. I guess the action that came back to the Subcommittee was we put this report out on the first hundred cases and we made some -- I guess the next challenge was, you know, well, what exactly does this mean relative to the NIOSH program? Have they been making the grade, basically? Is this an excellent job, good job, fair job?

Go ahead.

MR. KATZ: My memory of this, but it could be faulty because I didn't look at this part. I have looked at some of the transcript, but I didn't come across this when I was.

My memory was that the remaining issue which was kicked off at the Board meeting with a presentation from Stu, I think, was really to just go a little bit further into what changes have been implemented by OCAS in response to those issues. Stu gave a big summary to that.

MR. ELLIOTT: A short summary.

MR. KATZ: A short summary to that. A broad summary to that, I meant.

Then the thing was just to go into a little more detail, to have a good understanding for what positive progress has been in improving sort of procedures or quality assurance, depending on what the finding was in relation to that work of the Board.

But that is my rough memory of it.

CHAIR GRIFFON: Yes. I think one thing was what changes have been made as a result of the DR review process?

But the one that keeps coming back

to my mind is the quality assurance question. I know this came up in our discussion at the Board meeting, and there are some of these findings that end up being, yes, we missed this, but it would have resulted in 1 millirem or something, or 2 millirem, and would have had hardly any effect on the PoC.

So, at the end of the day, we got the decision right, and that is what we are worried about, is getting the decision right.

Then I'm talking about -- and that is why I initially included that sort of case-specific and then program-wide ranking of my findings or our findings. Then the question becomes, if you have a bunch of these quality -- sort of under the topic of quality control findings, what does that mean. Is it important? What's acceptable?

Stu and I were talking before the meeting started, you know, what level is acceptable in the program. I guess, from my standpoint, it gets a little more nuanced than

that even, in that I can see a certain level of acceptance for the sort of overestimating cases or underestimating cases as opposed to the best estimate cases. Then your QC grade might have to be a little higher. You know, the level of errors should be much smaller on those kinds of cases.

MR. ELLIOTT: If you do a thorough job.

CHAIR GRIFFON: Yes, yes. I guess that is what we want to sort of wrestle with, is, how do we evaluate that? From the Board's standpoint, how do we evaluate that? How has NIOSH performed in that regard?

I don't know if we are ready to make sort of some conclusion on that, but at least just to think about how we evaluate it, so we have some sort of metrics outlined as we go forward.

In addition to what Ted said, I think that is an important thing, is what has been changed as a result of this process. I

think we also have to discuss -- we've got, as Larry, I think you pointed out in our discussion of this, you've got a boatload of findings, and somebody comes and says, look at all these findings, but a lot of them are almost the same finding repeated many times. The argument can be made of kind of a minute finding, you know, not very significant.

MEMBER MUNN: That is one of the reasons I think that we were very careful in our early establishment of what criteria were going to be included in our quality assurance process, and making sure that there was a differentiation made between low-impact, medium-impact, and large-impact, which SC&A has used consistently throughout this entire review process, and which we have paid very little attention to in this forum here.

We have taken each finding individually and given each one almost the kind of individual scrutiny that we would have anticipated from high-impact findings at all

times.

So we have debated the issues surrounding low-level issues quite strongly, and how we, therefore, would quantify these issues of impact. It is very difficult for me to try to get my hands around. I can't imagine, absent a significant data-capture program of some sort that compares the types of findings and the level of findings, I don't know how we would quantify it.

I think we have to make any assessment that we make in thoroughly positive terms.

CHAIR GRIFFON: I know one thing. I mean, you are correct about our subcommittee meetings in general. We don't get into those. We debate each finding on almost equal merit, or whatever.

But our roll-up reports do attempt to include --

MEMBER MUNN: Yes. They identify --

CHAIR GRIFFON: I mean, some of the criteria was, for instance, if something was in -- I'm trying to think -- like TIB-0004. That was one of the ones that came up on several cases, and it also potentially affected a large number of claimants. So then it was viewed as a higher-level program-wide finding because it could have impact on more than just that case potentially.

MEMBER MUNN: Yes.

CHAIR GRIFFON: Then we had some that were like site-wide, so they were medium or high because they could have affected a lot more people, that sort of thing.

Then there's the whole quality question. A lot of them on the case level were fairly low-level findings, but then when you see a pattern, then you question whether it had a higher ranking as far as program-wide. Was it more significant than we view on an individual case?

I mean the questions that I had

had about the peer-reviewed stuff, I think it was at the last meeting when Doug was discussing one of the cases, and we were kind of going through the findings one by one and saying, well, NIOSH agrees, but it wouldn't have affected anything on this case; no further action.

And we went down that way like two or three times, and Doug says, I don't want to make a big issue out of any one of these findings. However, collectively, I'm a little concerned that peer review didn't get any of these, or it's not documented in the case file, anyway.

That may be another question of just how some of these things may not require a dose reconstruction to be reassessed by the original dose reconstructor, but a peer review might note that there is a discrepancy; however, no need to reevaluate because it is a minimal discrepancy or, you know, it would not affect the outcome.

But those weren't included in the case files. So that was some of the ones we have talked about, and I will let Larry talk to some of this now.

MR. ELLIOTT: Okay. There are several things I would like to say.

First of all, let me start by saying that the Advisory Board and its process, and this Subcommittee's efforts, I think demonstrate a very thorough review, very thorough.

So, with that in mind, though, I would offer that we perhaps come from different places on what the acceptable level of quality is in a dose reconstruction. I think our, he starts from a place that says we need to make sure that we get our work done to assure that the answer given to the claimant by DOL is the correct answer.

So we also start from the position that perfect is the enemy of good. If we strive to be perfect in all aspects of a dose

reconstruction report for each individual, we certainly wouldn't have been able to get 25,700 done in the amount of time that we have done them.

Nevertheless, Stu's review of changes that we have adopted or incorporated, based upon this Subcommittee's review of dose reconstructions, was very general, as we talked -- heard about a moment ago. On the outside, it probably seemed -- and I had a couple of people ask me about this -- doesn't seem like we have made many changes at all. Is it that NIOSH OCAS doesn't see any real value from the Subcommittee's reviews, and I'm saying, no, that's not the case.

Again, we start from different places when we approach this. So that has helped others understand.

But my ears pick up and I start listening very attentively and red flags go off in my mind when I hear things about quality control and, yes, Doug's point is well

made. If we see all of these little bitty deficiencies, nits, it leads one to think, well, if they're not worried about that, what are they worried about? How good is the work that they are doing?

Again, I often say we are trying to make sure we get the right answer as quickly as we can. And I have said at Board meetings that there are warts -- I think that's one of the terms and euphemisms I have used, analogies I have used -- there's warts on these things. They are not perfect.

They are perfect in a sense that we are trying to get the right answer, but they are not perfect in the sense that we have correctly perhaps addressed everything we should have.

What I find most disconcerting is when we hear something in the CATI and we don't speak to it in a DR. Anything that goes to responding to claimants' concerns, clarifying for a claimant, and providing a

better understanding of how we treated their information is bothersome to me. Because whether or not we got the answer right or wrong, we owe that person, we are obliged to treat that person, that set of claimants, as compassionately and as fully and thoroughly as we can.

So I don't want to see us disregard or not speak to certain items that they bring up. I think that is when my stomach starts turning, and I start worrying about how well we are reporting out our work in dose reconstruction reports.

I am not going to preach here, but I just want everybody to understand that we kind of come at this from a different perspective. You do a very thorough review, and I appreciate that. We are looking very hard at what comes out of these reviews.

It probably doesn't appear that we are making changes, but when and where we feel that it is appropriate for a program concern

or an individual situation, we take action. I guess we would be hard-pressed to keep that documented and put it in front of you at all times.

But I had hoped what would come out of a discussion about this among the Work Group members and the Board itself is, if we can identify certain deficiencies or categories of deficiencies that you view as critical, and we can talk about those, and if we come to agreement and consensus that they are critical, then those are the things we should make sure we do tackle, make sure that we do modify our reports and our behavior.

Maybe we can come out of that with also an agreement on, well, what isn't so critical. That is the other side of the coin, you know. That may save SC&A some time. It may save the Subcommittee some time.

Because, at some point, I would hope that you would all agree that, if we have heard the same issue over and over and over

again, and we are not taking action, you should beat us up. Or, if we hear a spot issue here and a spot issue there, maybe we don't need to spend our time on those, and we can agree about that, and not have to hear those come out again.

But that's all I've got to say. I just felt that I wanted to speak to that that way at this meeting.

I don't know if Stu has other thoughts beyond that, but we struggle all the time with, where are we at on our quality assurance, quality control, and what is our acceptance criteria.

Stu?

MR. HINNEFELD: Nothing more, other than that, I guess the key question to me is, what is an acceptable dose reconstruction. We even talk about what needs are a little bit, Mark and Larry and I.

In a QA program, where there was a QA program that I was familiar with, there

will be a disposition of a deficiency that is accept as is. In that case, though, the deficiency is noted. There is a record generated of it, and you decide that this isn't serious enough that I'm going to make this guy rework the part or anything like that. We are just going to accept it as is. I guess that is QC because of the inspection element.

MR. ELLIOTT: Deviation.

MR. HINNEFELD: Yes.

MR. ELLIOTT: It's a deviation report.

MR. HINNEFELD: Yes, a deviation corrective action report, is what we called it.

So, if we were to build something like that, we could then note when we observe these deviations and say that this one is not going to matter, so we are going to improve it. That, then, provides a record for the reviewers to see that, okay, that was noted

and it was accepted as is. Of course, you've got to be pretty confident when you accept as is that it really is okay.

But when you do that, there is more work to the review. Whether the peer reviewer does it or whether the HP reviewer does it, that adds time to the process. Because instead of clicking approved, you are going to click accept as is, and then you are going to describe what the deviation was.

CHAIR GRIFFON: I see what you are saying with accept as is. The “accept as” is - I was thinking of approved, but I was thinking like three categories, like approve, don't approve with comment, or approve with comment.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: And a third category is like --

MR. HINNEFELD: That's what I was saying.

CHAIR GRIFFON: -- approve with

comment, and that means we still accept it, but --

MR. HINNEFELD: We accept it, but we did note that there was a deviation.

CHAIR GRIFFON: But we noted that there was a discrepancy or deviation, yes.

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Yes. I think that would be very useful.

MR. ELLIOTT: And if you see that and there is a common theme over time, then you've got a bigger problem.

CHAIR GRIFFON: Right. Then you might say, wait a second, let's --

MR. HINNEFELD: So far, what you do in that program is then you trend --

CHAIR GRIFFON: Right, and then you evaluate it. This is happening a lot. Why is this happening all the time?

MR. HINNEFELD: Why is this happening a lot?

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I mean that's something we could build again. What you are doing, then, is you are spending your money doing that, spending your time. Money is not so important. The choke point here is --

CHAIR GRIFFON: Time is money.

MR. HINNEFELD: You know me. Why don't we just take it away from the contractor?

(Laughter.)

MR. ELLIOTT: To have more production, we've got to find money to give to the contractor.

MR. HINNEFELD: Production is the question --

MR. ELLIOTT: Production is the question.

MR. HINNEFELD: -- because the more effort you spend on that, whatever effort you spend on that, that's less effort to spend on production. So, if it takes me an hour instead of 50 minutes on average to review and

approve or comment on a dose reconstruction, then that's a 20 percent reduction in my ability to get dose reconstructions put together.

So I just made those numbers up. That may be pessimistic because, theoretically, you won't be commenting on every one. You still will be, on the majority of them, theoretically, you will still be approving. You know, just hit the approved button.

It could be, though, that if a dose reconstructor is told, your review is expected to identify any deviation, that may, in fact, require more time than saying, okay, here's the case; the doses look like they are coming out about what I would expect. I may not reproduce all these numbers. There may be a mathematical error, a mistake in there, or something in there that gets by, but it is approximately right.

So it may, in fact, require more

time in the review. It may be more time than just writing a deviation.

MR. ELLIOTT: I've been asked, is there a bright line here? Is there a blue line that we could say, a finding, if it is beyond the line, that's really, really problematic? That's the issue. If it is on the other side of the line, it's not.

The only thing I can answer that question is, if we got the decision wrong, if our work yielded a false negative, I'm concerned. That's the bright, blue line for us.

So all the many dose reconstruction reviews that have been done, I've been asked how many flipped because of the Board's review process, and I don't know. What? There's been one or two?

MR. HINNEFELD: Well, it is hard to judge.

MR. ELLIOTT: It's hard to judge.

MR. HINNEFELD: I mean there are

PERs that have been done, I think, in part, because of the Board's review process.

MR. ELLIOTT: Right, yes.

MR. HINNEFELD: A specific case, can I think of a specific case; because of a deficiency in that case, it changed? I can't think of any, but I won't swear there weren't any.

But there are things coming out of Board review that would lead to a PER when, in fact, cases may have -- so it's not exactly an easy question to answer.

CHAIR GRIFFON: Right, but what about, going back to these criteria, I mean I like this discussion, but, currently, do you do, just what I was mentioning before, because I could see it does add time? And I agree, obviously, you are concerned about that with the production.

Can you see a system where you would peer review, or maybe you do it currently? Like if you have cases, well, your

low-level PoC cancers, maybe you don't need the level of scrutiny where they are looking for any deficiency in those cases.

So, if you have 40 to 60 -- I don't know what the range is --

MR. HINNEFELD: Yes, I mean there aren't many at 45.

CHAIR GRIFFON: -- but near the 50 range, then you require a more --

MR. ELLIOTT: Or certain sites or certain time frames maybe, you could even speak to that as well.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: At 45, we require best estimate dose reconstruction.

CHAIR GRIFFON: Right.

MR. HINNEFELD: We could, in fact, you know, in that range, 45 to 52, or whatever --

CHAIR GRIFFON: Require a more rigorous --

MR. HINNEFELD: I mean you could

base it on --

CHAIR GRIFFON: Put the three criteria, yes, yes.

MR. HINNEFELD: I forget what the difference is at 45 percent.

CHAIR GRIFFON: I'm just thinking out loud now.

MR. HINNEFELD: At 40 percent PoC, you need half again as much risk --

CHAIR GRIFFON: Yes.

MR. HINNEFELD: -- to get to 50 as it took to get to 40. You're only two-thirds of the way there when you get to 40 percent.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: So 45, I think you are still --

MR. ELLIOTT: But if we say it is a best estimate, to me, that says we had better make sure we've got everything attended to.

CHAIR GRIFFON: Best estimate, best peer review, yes, yes.

MR. HINNEFELD: And the guys do take more time on a 45-to-52 case. Nobody wants to pull them up because they take so long to do.

CHAIR GRIFFON: Right. Yes, maybe implementing this kind of change also on top of that would reinforce that, that you are to document discrepancies, even if they don't impact the case.

MR. ELLIOTT: I have also thought of looking at our return rate --

CHAIR GRIFFON: That's the other question I had, yes.

MR. ELLIOTT: -- and checking out what dose reconstruction drafts we return to ORAU, or whoever does them, and says they didn't meet -- and what are we catching there. You guys don't see this.

CHAIR GRIFFON: Right.

MR. ELLIOTT: You only see the final, finished version.

CHAIR GRIFFON: Right.

MR. ELLIOTT: But I can tell you that we track that. We have a special graphic that we see every week, maybe it's every month, how many ORAU sends us and how many we have accepted, how many we have returned back and said it didn't meet the standard.

CHAIR GRIFFON: Oh, you're talking internally return?

MR. ELLIOTT: Yes.

CHAIR GRIFFON: Not from DOL?

MR. ELLIOTT: No, no.

CHAIR GRIFFON: Yes, internally returned, yes.

MR. ELLIOTT: I'm talking about, what did the peer reviewers catch --

CHAIR GRIFFON: Right.

MR. ELLIOTT: -- and say, no, this isn't good enough; you've got to come back at us with a revision based upon these comments we're making.

I haven't done that, but I am just thinking that might be another way to look at

things that we have caught versus what we let get through --

CHAIR GRIFFON: Yes.

MR. ELLIOTT: -- and compare that with what you guys are identifying in your review of the findings.

MEMBER MUNN: Well, that is another one of those painful ways of quantifying things, though.

MR. ELLIOTT: I don't know if it would be informative or not. I don't know if you've got any thoughts on that, Stu, or not, but another way of looking at it.

CHAIR GRIFFON: And if you have the ability to look at common threads for that, too, it might be interesting.

MR. ELLIOTT: Yes.

CHAIR GRIFFON: Yes, yes.

MR. FARVER: Let me make sure I have this straight. We have the dose reconstructors. They write the report.

MR. ELLIOTT: Yes.

MR. FARVER: Then it goes to someone in ORAU for a review?

MR. HINNEFELD: For a peer review, yes.

MR. FARVER: And then it goes to someone in NIOSH. Is that called a peer review?

MR. HINNEFELD: It's called the HP review.

MR. ELLIOTT: Technical peer review.

MR. HINNEFELD: Well, the terminology we use is HP reviewer. There's a dose reconstructor that personally prepares it. There's a peer reviewer, and then that's an ORAU person.

CHAIR GRIFFON: ORAU, right.

MR. HINNEFELD: And there's an HP reviewer.

MR. FARVER: Okay. So the HP reviewer follows different criteria than the peer reviewer --

MR. HINNEFELD: Yes.

MR. FARVER: -- because the peer review is documented in Procedure 59.

MR. HINNEFELD: Yes, an ORAU peer review. We have a procedure.

MR. FARVER: It's the ORAU team.

MR. ELLIOTT: Yes.

MR. HINNEFELD: Yes.

MR. FARVER: Okay.

MR. HINNEFELD: Well, that's right, it is a team.

MR. FARVER: Yes, and it's got a very specific checklist?

MR. HINNEFELD: Yes, yes.

MR. FARVER: Is there a similar one for the HP review?

MR. HINNEFELD: Yes.

MR. ELLIOTT: Is it proceduralized? It's a checklist.

MR. HINNEFELD: Yes, HP review is proceduralized and it does have a checklist as well.

MR. ELLIOTT: There's an OCAS procedure, but I don't know the number.

MR. HINNEFELD: I can find it for you.

MR. FARVER: But I look at this checklist, and I bring this up periodically, but one of the first questions under internal dose, were all positive bioassay samples considered. Yes, No, N/A.

Well, we had that one finding where the whole-body counts --

MR. ELLIOTT: Weren't considered.

MR. FARVER: -- weren't considered. Someone should have checked no. How does that make it through, and then are those numbers being tracked?

And you guys can find other examples. I know in the past we have had the role-of-absorption type because we have put it into the report. Even though it may have been correct in the calculations, which one are they checking?

MR. ELLIOTT: They should have got that as one --

MR. FARVER: And there are some very specific things that should be caught. I mean it is a very thorough checklist, but I don't know if it is being tracked or if it is being used.

We had the one that had the missing dose one year, for 1984, whatever case it was. There's a whole worksheet in here. It is a worksheet, deep dose, shallow dose, neutron dose, where you enter all the numbers and you tally them up.

So I don't understand how we are finding these things. So that is one of my concerns. It appears there's something in place, but things are still getting through.

CHAIR GRIFFON: Okay. I mean the other thing, Larry, that I was thinking about was, when we were talking this morning just offline, and sort of thinking about the production and the impact, and how good is

good enough sort of thing, I think you also have to look at the end of this cycle. You sort of alluded to it. Return rate from you to ORAU is one thing; the return rate from DOL to you is another thing. Then I was thinking also like the number of appeals.

If it gets to the point where -- and I don't know how often this happens, but if there's claimants out there that get their report and are diligent enough, or whatever, to check every little item, and they find mistakes, discrepancies, then that is another cost at the end of cycle sort of, because you've got to come back and deal with that. It creates havoc at that point, I imagine, that it becomes --

MR. ELLIOTT: Well, we could provide more detail on this. You have heard me at Board meetings talk about the number of returns from DOL.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: And primarily, they

are returned to us based upon changes in the claim information.

CHAIR GRIFFON: Right.

MR. ELLIOTT: The smaller portion is on technical issues. I don't have numbers right off the top of my head right now.

CHAIR GRIFFON: No, but I remember.

MR. ELLIOTT: But we might be able to provide some more detail in that regard. I don't think we have had a very good success rate at trying to track over the course of history. We may have a better ability now than we did earlier on technical issues.

MR. HINNEFELD: I am not sure if Tracey is doing anything or not. She does now, I think, record --

MR. ELLIOTT: There were just so few, you know. I mean we could track them by hand, essentially.

MR. HINNEFELD: I think she records -- I think they record down there when

we get a return. They just call it a DOL issue or a NIOSH issue.

MR. ELLIOTT: Yes, a NIOSH issue.

MR. HINNEFELD: So I think she is tracking those now. So I think we might be able to pull that up. For the longest time, we didn't.

MR. ELLIOTT: That will give you a snapshot of recent history.

MR. HINNEFELD: It would just be the last few months, I think.

CHAIR GRIFFON: What about the appeals? I don't know how many. I have no sense of how often that is happening.

MR. ELLIOTT: Go ahead.

MR. HINNEFELD: Well, we will have to chase that. I mean there are a number of appeals that are remanded.

CHAIR GRIFFON: DOL probably tracks that, right?

MR. HINNEFELD: Yes. It would come back to us. It would look to us like a

remand.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: In other words, they remand it back to us. It will look like a remand.

MR. ELLIOTT: A technical remand.

MR. HINNEFELD: Remands fit into a number of categories. Things are remanded back to us because of new demographics; a new employment that wasn't considered that DOL didn't know about, didn't tell us about; a new cancer. It is remanded if someone gets a cancer after their case is done; you know, he's still alive.

MR. ELLIOTT: New survivor.

MR. HINNEFELD: Those are remanded.

MR. ELLIOTT: New survivor.

MR. HINNEFELD: On occasion, a closed case comes back to us, yes. It can.

Then there are some cases that are remanded for technical objection. But, again,

those are usually the minority of those kinds of cases.

I don't know if we will have a way to find those easily because they all look, whether it is a remand to DOL or something else --

MR. ELLIOTT: It depends on what stage the claim has achieved in DOL's adjudication process.

MR. HINNEFELD: Yes.

MR. ELLIOTT: It could go just to the District Office, and somebody there, the claims examiner, or even if somebody before it gets to the FAB could say this doesn't look right to us. Or the claimant says to the DOL claims examiner, I got my dose reconstruction report. You know, you've got it now, but I don't believe it. There's an issue here.

Or, in some cases, they throw up Board review as a reason why it ought to be reworked. In some of those instances, in that aspect, DOL will turn it over to one of their

health physicists, and if the health physicist agrees, then we might get it back that way, from the health physicist.

CHAIR GRIFFON: You mean Board review; you mean that we are still reviewing the site or something?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Okay, yes.

MR. HINNEFELD: If there is an SC&A evaluation of the site profile --

CHAIR GRIFFON: Ongoing, right. Right. Yes.

MR. HINNEFELD: -- and that's out there, those will come back.

But the point I was going to make is that they all look like DOL returns. Our system, everything looks like a DOL return, whether it's found by the District Office --

CHAIR GRIFFON: You don't separate it out? Right, right.

MR. HINNEFELD: -- whether it is found by the District Office and sent back to

us, whether it is found by the FAB and sent back to us, whether it is adjudicated, reopened, reopened upon appeal and sent back to us, whether it is closed altogether, or I don't mean reopened, but whether it goes to FAB and they get a recommended decision, and then they file an appeal, and then it comes back to us, or whether it is all completely adjudicated with a final decision, and then some new information comes up, like an additional cancer, and it is reopened and then it comes back to us.

All those situations, no matter where it is, they all look the same to us. They all are DOL returns.

And it may not be too important for the purpose for our discussion here. Our discussion is, what's the burden on technical objections, technical errors, no matter where they are found after we send them out? How much of that comes back?

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: That is the question. So it really doesn't matter how far it gets down DOL's route.

CHAIR GRIFFON: True, true. That's right.

MR. HINNEFELD: So it doesn't really matter.

So that is something we can probably find just looking at DOL returns and whether it is a DOL issue or a NIOSH issue, based on what we're tracking. We might be able to find that.

CHAIR GRIFFON: Yes, yes. Right, right, right.

MR. HINNEFELD: But I thought somebody else raised a pretty good point. I think it was Doug who raised the point in our pre-meeting discussion of this.

Part of the effort, the additional effort that goes along with the dose reconstruction that isn't done right, if it has deviations in it, is the effort we spend

here. The effort that SC&A, that it costs SC&A to do, to find those things and write it, and the effort we spend resolving it, we and us on the ORAU team --

CHAIR GRIFFON: Right.

MR. HINNEFELD: -- writing a resolution. That is a fairly substantial burden, as well.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: So that all weighs into --

MR. ELLIOTT: It is very costly.

MR. HINNEFELD: -- the burden that we would avoid by having whatever system in place that indicates we looked at it; we found it.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: We said okay or we looked at it and we found it and it didn't get through.

MR. ELLIOTT: Yes, if we could both start from the same place on what's the

standard of quality, that might minimize a lot of the cost that we are encumbering on this process alone.

CHAIR GRIFFON: Right.

MR. HINNEFELD: We could allow for even some variations in process here. If we decide, for instance, to go by PoC and say that PoC is going to be determined, we are going to pick a range of PoCs, and in that we are really going to be careful. We are not going to have a deviation that we don't know. We are going to know any deviation.

If we find a deviation and it really is, and we are confident it is not going to change anything, we may accept it as is, but we are going to be very careful about that because we only need -- something will need a 10 percent change if you're at 45 percent, and you leave out a 10 percent change, or 12 or something. So we are going to be very careful about that.

Then, when we get to this

location, and there is a dose, and there is a review of a case that is 40 percent or 38 percent, and you find something that is in there, and it maybe gets a different finding kind of category -- you have a Finding Category 1 and a Finding Category 2. Finding Category 1 is where he was in the 45 and you still found a deficiency, and then Category 2 is that, well, you found a deficiency, but it was less than 45.

So that may be instructive. It may not. I mean I am just talking off the top of my head now. I haven't really thought a lot about this, but I'm not sure if that gets you where you want to be.

MR. FARVER: We have been kind of moving in that direction, I believe.

MR. HINNEFELD: Yes.

MR. FARVER: When the program started, and we were looking at everything and all range of cases, and we are finding things like maybe an error in a workbook calculation,

and that's a very wide thing.

As we move on, we are finding smaller things. The big ones are taken care of.

We started going from --

MR. HINNEFELD: That is good to hear.

CHAIR GRIFFON: Yes, yes.

MR. FARVER: -- findings to observations.

MR. HINNEFELD: Yes, now there are some observations, yes.

MR. FARVER: So we are kind of moving toward that direction, and now we are trying to select cases at 40 percent and above, everything.

So, I mean, the Subcommittee could lax us up on our criteria or change the criteria, do whatever you wish, because now we are trying to narrow it down and maybe focus on big items. I don't know. But it has just been a progression.

MR. HINNEFELD: Yes.

MEMBER MUNN: It has been, and one of the things that was discussed tangentially in the earlier discussion was the repetitive nature of some of the findings.

MR. FARVER: Yes.

MEMBER MUNN: Certainly, early on in the program, I would say the first half of the program, it was almost to be expected that every new report from our contractor would say something like, you haven't considered this radionuclide. You haven't considered this radionuclide.

And we would have this whole list of individual findings for individual radionuclides. It was, essentially, the same finding over and over, but for different individual cases, and in almost all cases it was low-impact, low-impact, low-impact. But, nevertheless, it racked up the findings significantly.

I think we have passed the point

where we get that repetitive kind of basic finding again.

MR. ELLIOTT: I wonder. I wonder because, I don't know, maybe we are beyond this, but the snapshot in time that you have been looking at in DR reviews has been a concern to me because you are looking at the oldest work that we have done, and you are lagging way behind.

MEMBER MUNN: We are.

MR. ELLIOTT: If we were to say --

CHAIR GRIFFON: But it is in part because we have to look at adjudicated cases.

MR. ELLIOTT: Yes, you've got to look at adjudicated cases, but I think that has sped up quite a bit, too. I mean there's a lot more cases in the pool to choose from that are more recent --

CHAIR GRIFFON: Right.

MR. ELLIOTT: -- is what I mean by that.

CHAIR GRIFFON: Right.

MR. ELLIOTT: So maybe that is not something that you want to talk about, but I do think, if this was three years ago, I would have made that comment, or two years ago, I would have made that comment. You are looking back at 2002 or 2003, and you are not really seeing what we are doing in 2006.

CHAIR GRIFFON: Right.

MR. ELLIOTT: And in 2006, that is a good year to take a look at, if you want to look at a year, because that is the peak year of our production. We have never been able to achieve that capacity again because of our funding issues.

CHAIR GRIFFON: Right.

MR. ELLIOTT: But in 2006, we put out more than 6,000 dose reconstruction reports in that year. Production was the highest.

MEMBER MUNN: Well, what you are saying is particularly pertinent in view of the fact that what we are talking about here

is commenting on the first 100 set of cases. They all were way back at the beginning --

CHAIR GRIFFON: They're early, way back, yes. Yes.

I mean my sense would be, and there is a problem with the time lag here, but my sense is, if we can come up with -- you know, that recommendation on the QA procedure going forward seems logical to me. I don't know that the Board would -- I think we would make a general recommendation and then say, NIOSH, we are not going to, obviously, not going to be prescriptive in that, but how you view it.

But it does make a lot of sense to me to have a sort of tiered approach for the ones closer to 50, doing a more rigorous QA, and having those comments in the file.

Then I think the issue, notwithstanding this time-lag problem, the issue goes away in our review, because Doug is not going to have those findings because they

are going to have a comment in there that says, we saw this.

MR. ELLIOTT: We saw the findings.

CHAIR GRIFFON: Don't bother looking any further. We noted it.

Then I would expect SC&A would say, if anything, it's an observation. They missed this, but they noted it, and it is insignificant.

I don't even think it rises to an observation at that point, but there is a time lag on that, obviously. Because if you start doing that today or in six months, it is not going to be in the adjudicated cases for a while, right? So that is the only dilemma there.

MR. ELLIOTT: Maybe in six months you would start seeing some.

CHAIR GRIFFON: Yes, that's the only dilemma there. But, I mean, I think that, from my standpoint anyway, that seems like a logical recommendation from us.

MR. ELLIOTT: Well, I want to work with you all on this.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: Because I have been fearful of getting a letter that you have sent to the Secretary bounced down to me, and we have to write the response for the Secretary. That's what's going to happen --

CHAIR GRIFFON: Right, right.

MR. ELLIOTT: -- in case you don't know that.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: It's not the Secretary who is going to say, oh, well, this is all well and good, and I'll crack the whip and they're going to make changes down there. He is going to kick it down to us, and I'm going to assign it to Stu, and Stu is going to decide what we're going to do.

MR. HINNEFELD: I would assign it to somebody else.

(Laughter.)

MR. ELLIOTT: Yes, he would assign it to somebody else.

(Laughter.)

But we have had a recent shift in our assignments. Stu is no longer what was called the Technical Program or the --

MR. HINNEFELD: I used to be the Project Officer.

MR. ELLIOTT: The Project Officer on ORAU. Grady is now that. I have been talking to Stu about what that -- he's got a void now. So what are we going to fill it with? And I want him to be more involved in developing a better QA program than what we currently have.

So that is why I wanted this conversation to occur today, and I really have asked Stu to pick up the reins here and try to figure out, where can we improve. Where can we have a better quality assurance program? How can we bolster our quality control processes to get to where we all want to be?

I don't think we want to do -- I mean we could do this alone. Stu can come up with his own ideas, and we can formulate the program, but it may not be what you guys want to audit. I would rather develop something that is auditable to your satisfaction.

CHAIR GRIFFON: I mean I think this was a good start. I don't think we are going to come to any conclusion today.

MR. ELLIOTT: No.

CHAIR GRIFFON: But I think this is a good start on that. It helped me understand your process internally.

MR. FARVER: Yes. Now is your HP review procedure, is that OCAS-PR-007?

MR. HINNEFELD: I think so.

MR. FARVER: Okay.

MR. HINNEFELD: That sounds familiar.

MR. ELLIOTT: That sounds right.

MR. HINNEFELD: I can tell you for sure.

MR. FARVER: Because that's got a checklist in it.

MR. HINNEFELD: Yes.

MR. FARVER: But, like the ORAU procedures has nine pages of a checklist; this has just 18 little items, and the columns are adequate, yes or no; corrections, yes or no; and comments. So you could always say, yes, it's adequate and add comments to it.

But I'm not sure it is technical enough. It covers necessary things like, are headers and footers correct. I mean, obviously, you want things like that correct on your report. But it doesn't get into the technical detail, like all possible bioassays.

MR. ELLIOTT: It doesn't have a box for that?

MR. FARVER: No.

MR. ELLIOTT: But that is in the ORAU one.

MR. FARVER: That is in the ORAU one.

MR. ELLIOTT: Does it have a box there that says, did the CATI interview get attended to fully in the DR.

MR. FARVER: It says, CATI information matches DR.

MR. ELLIOTT: There you go.

MR. FARVER: And that's a box.

MR. ELLIOTT: That's a box on our --

MR. FARVER: On yours.

CHAIR GRIFFON: That's good. Yes, that should be.

Did we review those two procedures in the procedures review?

MEMBER MUNN: Yes, I think we --

CHAIR GRIFFON: I can't remember going through this checklist.

MEMBER MUNN: No, we didn't go through the checklist.

MR. HINNEFELD: I don't recall.

MEMBER MUNN: No.

MR. ELLIOTT: You don't think so?

CHAIR GRIFFON: I don't think we did.

MEMBER MUNN: I don't believe so. I don't remember going through checklists.

CHAIR GRIFFON: I think we probably should, though.

MR. ELLIOTT: There's an opportunity there.

CHAIR GRIFFON: We probably should, and then we can get together on this.

MR. FARVER: Those are very tangible items and very trackable, too.

CHAIR GRIFFON: Yes, I'm all about that. Reassign it to someone.

(Laughter.)

MR. ELLIOTT: Okay, I am going to leave now.

CHAIR GRIFFON: Your work is done here.

(Laughter.)

MEMBER MUNN: Thank you, Larry. You may go.

MR. HINNEFELD: So far, he assigned more work to me than you on this very nice conversation.

CHAIR GRIFFON: You know, I think, just to get back, for this Subcommittee, I think I will try to maybe put down some ideas, like a straw man of ideas on this, and circulate it for our next meeting.

MEMBER MUNN: That would be appreciated.

CHAIR GRIFFON: And then we can go forward with discussions.

MR. ELLIOTT: Could you work together to come up --

CHAIR GRIFFON: Oh, yes, yes, yes. Definitely.

MR. ELLIOTT: Because he may have ideas that you haven't, and you may have ideas he doesn't.

CHAIR GRIFFON: That I never thought of, right. Right. Yes.

MR. ELLIOTT: Is that okay, Stu?

MR. HINNEFELD: Sure.

CHAIR GRIFFON: I'm okay with that. So, okay, I will coordinate with Stu on it and circulate it to all members of the Subcommittee, obviously.

The only other things I was going to mention in terms of you were saying the outcome, you mentioned, identify certain deficiencies or categories of deficiencies. Some things that come to mind, and I think this is why I want to write it in this paper, but some things I have been thinking about are just these peer reviews and these checklists; I don't think they are included in the case files. I don't think I have ever seen those.

MR. HINNEFELD: No, I don't believe they are.

CHAIR GRIFFON: That is something. So this case file to sort of show all your work kind of thing, all the IMBA runs. These are some things that keep coming up with us. I don't think it adds any work to the District

instructor, or maybe it does. I don't know.

MR. HINNEFELD: Be careful here. That checklist is completed for only a fraction of the reviews. Isn't that true?

MR. ELLIOTT: Which checklist?

CHAIR GRIFFON: The peer review.

MR. HINNEFELD: Ours.

MR. ELLIOTT: Yes, I think Grady has the answer to this. I'm not sure.

MR. HINNEFELD: Grady would know it off the top of his head.

CHAIR GRIFFON: Maybe you can help me when we talk more of what the --

MR. HINNEFELD: The procedure would have to describe it.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Now you're supposed to check all those things every time. That is what the procedure says. These are the things you are checking for.

But, in terms of actually filling out the form, that's done when the system pops

it up. I think it's 20 percent of the reviews.

CHAIR GRIFFON: Oh, I see.

MR. ELLIOTT: Something like that.

MR. HINNEFELD: The system automatically pops it up.

CHAIR GRIFFON: But, either way, I don't think I have ever seen one in --

MR. HINNEFELD: No, but it doesn't go in there.

MR. ELLIOTT: No, it doesn't go in there.

CHAIR GRIFFON: It doesn't go in the case file, yes.

MR. ELLIOTT: The review culture, you know, that has developed is so rote.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: I've worried about that, too, you know, that aspect of it. I would rather it not be so rote, but there is a benefit to that in consistency.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: So you want to keep your reviewers attentive and aware and on the ball, so you don't want to get them too mired down into, okay, here's my checklist -- check, check, check, check, check, check.

CHAIR GRIFFON: I agree, yes, you don't want to be too -- yes.

MR. ELLIOTT: Whether they actually read it or not.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: So we have struck an agreement with our reviewers where we do a percentage.

There is also an electronic QA done aside from that, I think.

MR. HINNEFELD: No, I believe that's it.

MR. ELLIOTT: That's it?

MR. HINNEFELD: That's electronic.

MR. ELLIOTT: Oh, that's the electronic?

MR. HINNEFELD: Twenty percent of

the cases, the checklist pops up and has to be completed.

MR. ELLIOTT: It has to be done by the individual, by the reviewer.

MR. HINNEFELD: By the reviewer, by the peer reviewer.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: I think it is 20 percent.

MR. ELLIOTT: So, when a reviewer comes up with his screen and he doesn't get this pop-up, he is supposed to touch base on all of those things in the list.

MR. HINNEFELD: He is supposed to make sure those things are done.

MR. ELLIOTT: Those things are supposed to have been done. He doesn't have to check the box.

MR. HINNEFELD: He can always choose to fill it out.

MR. ELLIOTT: Yes, he can choose to fill it out.

MR. HINNEFELD: Or she. We do have some she's.

MR. ELLIOTT: But there is a percentage. I think you're right, it's 20 maybe. I should know this, but that is ballpark, right, I think.

CHAIR GRIFFON: But, in any case, that doesn't become part of the record?

MR. HINNEFELD: That does not go in the DR record. It's captured. I mean the data is captured somewhere, but it must be a data --

MR. ELLIOTT: Grady's got it, I think.

MR. HINNEFELD: And then there are some things we can do.

MR. FARVER: See, on the one hand, the processing is pretty thorough. On the other hand, we shouldn't be seeing these things.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: Yes, if the

execution is that good.

MR. FARVER: That is what confuses me.

CHAIR GRIFFON: Right, right.

MR. ELLIOTT: I will say one more thing here and then I'm going to bail.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: On our side, we have to be concerned about those folks who are assigned to do these reviews. One, we want good performance out of them, but I just don't want to take them to a place where they feel they are getting reviewed on the review.

CHAIR GRIFFON: Reviewing the reviewer, right. Right.

MR. ELLIOTT: And their performance is affected by that. Do you see where I am going with this? I don't think that would be very helpful in our shop.

We have some people -- you know, we have never -- I don't know; they have talked about this. I have thought about this,

but we have never gone in and looked on each individual reviewer, how well are they doing?

CHAIR GRIFFON: Right. Right.

MR. ELLIOTT: Now ORAU I think can produce maybe some results that way. I don't know.

MR. HINNEFELD: Well, it depends on what you are talking about.

MR. ELLIOTT: Well, do we have one reviewer that consistently misses? You know, is the CATI reflected in the DR? Is all the internal dose accounted for? Do we have one guy that continually seems to miss that?

MR. HINNEFELD: Missing a particular aspect.

CHAIR GRIFFON: They are missing a high percentage of that.

MR. ELLIOTT: Right. Right.

CHAIR GRIFFON: Yes.

MR. ELLIOTT: Now I think there is a casual supervisor-to-reviewer approach in that regard. Hey, I keep seeing you miss this

thing.

CHAIR GRIFFON: But never a formal --

MR. HINNEFELD: Yes, because after the HP review, there is another kind of supervisor's final review of the DR. It's called a tech review. There is no spreadsheet on that. There is no procedure on that. They are just trying to make sure that they are looking for things that are fairly obvious. They are not going to open up all the files from the case and do all that stuff.

MR. FARVER: No, that is what the checklist is, more of an overview.

MR. HINNEFELD: Yes.

MR. FARVER: But the ORAU one seems very technical and should catch a lot of these items.

CHAIR GRIFFON: Yes, right.

MR. ELLIOTT: That's where we wanted to place the quality, see.

MR. FARVER: But I'm not sure that

is being tracked by them.

CHAIR GRIFFON: It is, apparently. Didn't you just say that?

MR. ELLIOTT: Well, tracked to what degree?

MR. FARVER: In the degree that you have all these specific items on nine pages, and can you tell me how many times item 6 shows up?

MR. HINNEFELD: See, I don't --

MR. ELLIOTT: I don't know if we could -- we would have to follow up on that.

MR. HINNEFELD: I don't know what they've got over there.

MEMBER MUNN: But this is another one of those questions that I was talking about earlier when I said, how much specificity can you get. How much can you really and truly quantify something unless you have a program set up that's tracking it?

Then the question arises, is the end result worth the time, effort, and energy

that goes into even setting up the program, much less tracking it all the time. There is a point of diminishing returns.

That is the real question, I think, that we, as a Subcommittee, have to struggle with in terms of making our report. How can you give a report that shows that real progress has been made without giving specific numbers? Because we are not tracking our process that way.

MR. ELLIOTT: Let's take you back to the standard of quality.

MEMBER MUNN: Exactly.

MR. ELLIOTT: We are saying to our reviewers, make sure we get the right decision out of DOL with our work. That is what we are most concerned about. We do not want any false negatives.

MEMBER MUNN: No.

MR. ELLIOTT: That is what we are most concerned about. So we are saying that, and every person hears that. I know they walk

away with a little bit different -- we've got certain reviewers that review x number in a week, and they are at the top of their form. We've got other reviewers that may review five a week and that are doing something else.

So, in the back of their mind, they are saying, hey, what we've got to look for is, are we getting the right decision out of this work, not is that “i” dotted. Is that t crossed? Did ORAU take care of that issue effectively in writing it up? Yes, they did, but maybe they didn't and it still gets the right answer.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I think one thing for me, anyway, and I think for all the Subcommittee, would be to have a better understanding of all these -- like if ORAU already has and is collecting all their peer review data and can simply sort and find out on how many Question 6 was found, if that already exists --

MR. HINNEFELD: I will have to find that out for you.

CHAIR GRIFFON: I agree with Wanda. We don't want to ask, like you should be doing this and this and this, and then at the end of the day, it's not even telling us much.

MEMBER MUNN: No, it is not really relevant.

CHAIR GRIFFON: But if it is already there, that is a different story.

MR. HINNEFELD: I don't know.

CHAIR GRIFFON: So maybe just a little better --

MR. HINNEFELD: Or whether that checklist is like ours. I mean these are the things you are expected to check or to verify.

CHAIR GRIFFON: If I could ask you, Stu, to give us --

MR. HINNEFELD: I will find out from them.

CHAIR GRIFFON: -- a little better

report on what is out there right now?

MR. HINNEFELD: Yes.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: I will find out for you.

CHAIR GRIFFON: That would be helpful, yes.

MR. FARVER: But, I mean, if we go back to that one case about the positive bioassays, if we go back and pull that checklist, is that box going to be checked yes or no for all bioassays that are concerned?

MEMBER MUNN: Yes.

MR. FARVER: Okay.

MR. ELLIOTT: If it is checked yes and it wasn't, somebody should have written down, it doesn't make any difference.

MR. FARVER: And that is a valid remark.

MR. ELLIOTT: Yes, it does not make a bit of difference, and I am not going to waste more money and more time trying to

fix this piece, when I could get it out and get an answer in the hands of a claimant.

MR. FARVER: I agree.

CHAIR GRIFFON: Right.

MR. FARVER: That is why your form has the comments section, which how we used it is very good. It is only good if someone is looking at it.

CHAIR GRIFFON: Okay. I think that is a path forward. We will get a better description from Stu.

MR. ELLIOTT: Well, I would appreciate it if you and Stu will work together.

CHAIR GRIFFON: Yes, I will work with Stu on addressing --

MR. ELLIOTT: Because I don't want to set up -- I don't want to go off on our own and set up a system that you're not going to find auditable; you're not going to agree with it.

CHAIR GRIFFON: Oh, no, no.

MR. ELLIOTT: You're going to audit the system itself and say it's not what we want.

CHAIR GRIFFON: Yes, I think we appreciate this input now, instead of waiting.

MR. KATZ: So are we going to have a standing item then for the Subcommittee of quality control, as an agenda item?

CHAIR GRIFFON: I guess so, yes.

MR. KATZ: Just for a little while at least?

MR. HINNEFELD: It is sort of like progress on the effort that we are undertaking.

CHAIR GRIFFON: Right.

MR. KATZ: Yes.

MR. ELLIOTT: We may also have to have a conversation about definitions.

CHAIR GRIFFON: Right.

MR. ELLIOTT: Because some people come at this with a different definition of what quality assurance means and about quality

control.

CHAIR GRIFFON: Definitely, yes.

MR. ELLIOTT: Having worked in the food industry, quality assurance means the product is developed and you assure its quality. Quality control means the steps along the way: building the Ford is checked. Well, I put the engine in and I put it in right. Now we put the wheels on, and I put it on right. And at the end of the line, somebody says, hey, yes, they're all there. The wheels are on and the engine is in. Quality is assured.

MR. HINNEFELD: Mainly right now, we are talking about inspection.

MR. ELLIOTT: Yes, we're talking about inspection.

MR. HINNEFELD: We're talking about inspection. The inspection is quality control.

MR. ELLIOTT: Quality control.

MEMBER MUNN: Quality control,

okay. Yes. That is my definition.

MR. FARVER: Well, it is kind of like the peer review is the quality control, and the HP review is the --

MR. ELLIOTT: It could be considered a quality assurance step, I guess.

MR. FARVER: Looking at the entire animal.

MR. ELLIOTT: Yes.

MR. KATZ: Actually, it depends on the sophistication of your quality assurance or quality program, because quality control, as you become more sophisticated, you do less and less inspection, even with the quality control aspect of it. But quality control, anyway, is a subcomponent of quality assurance, to be sure.

MR. HINNEFELD: Yes, it would include the training requirements --

MEMBER MUNN: The program's QA.

MR. HINNEFELD: -- for each of your positions.

MEMBER MUNN: The action is QC.

MR. HINNEFELD: And you include clarity of the procedures and guidance for each of the procedures. We're going to have a problem with that. It's hard to specify clear procedure and clear guidance, given the amount of leeway or the amount of different kinds of conditions you can encounter in dose reconstruction.

You can specify clear guidance, but it is not very specific. If you try to be specific --

CHAIR GRIFFON: This gets back to the internal dose questions.

MR. HINNEFELD: -- it becomes too voluminous.

CHAIR GRIFFON: Yes, yes. Yes, and that gets back to the --

MR. ELLIOTT: The standard of quality really. I mean, what are you going to do --

CHAIR GRIFFON: Well, no, but,

also, I think a lot of us, as a compromise -- I'm speaking for myself now, but that's where I get the show-us-the-work thing, because you can't be prescriptive with that kind of stuff, but at least we can see the thought process that the person went through, instead of trying to recreate it afterwards in this room or in that process.

Why don't we take a break? After the break, Stu is going to give us a lecture on Deming's theory of quality.

(Laughter.)

MR. HINNEFELD: A few years ago, I probably could have.

CHAIR GRIFFON: I need a break. So let's take a break until 3:30, and maybe we can take another hour and see where we are on the 8th set. That will be about enough to wrap us up for the day.

(Whereupon, the above-entitled matter went off the record at 3:22 p.m. and resumed at 3:40 p.m.)

MR. KATZ: This is the Dose Reconstruction Subcommittee.

Do we have the Behling's' back yet?

MS. BEHLING: Yes, I'm back.

MR. KATZ: Great.

MR. FARVER: Kathy, did I send you the NIOSH responses for the site profiles, the attachments?

CHAIR GRIFFON: For Set Number 8, we're talking about.

MS. BEHLING: Yes, I believe you did, Doug, but I've got to look to see, obviously.

CHAIR GRIFFON: If you can look for those because we can't seem to find them. That is why we are asking.

MS. BEHLING: Okay, let me see.

MR. FARVER: I may have sent you the matrix without the responses in it.

MR. STIVER: This is John Stiver. I'm online.

MR. FARVER: Yes, John.

MR. STIVER: Yes, that last question, I believe there were no NIOSH responses for the attachments.

MR. FARVER: Okay. This is a case of having the wrong matrix.

CHAIR GRIFFON: That's what I have, yes.

All right, let's just start from the matrix in the beginning then. We were thinking about doing those attachments, the site profiles, since Hans was available, and we might want to discuss those. But if we don't have NIOSH responses, I don't think it will be very worthwhile. I would just as soon start from the beginning of the matrix.

MR. FARVER: Yes. Well, I found the responses that we sent from NIOSH.

CHAIR GRIFFON: Oh, you did find the responses?

MR. FARVER: But I don't think I sent them to Hans or John.

CHAIR GRIFFON: Oh, you didn't send them, yes, okay.

MR. HINNEFELD: When did I send them?

MR. FARVER: Now you're going to ask questions like that.

CHAIR GRIFFON: Yes, I don't seem to have them.

MR. FARVER: January 26th, 22nd or 26th, I believe.

So we may not be able to do those this time.

MEMBER MUNN: Which group?

CHAIR GRIFFON: This is at the very end of the 8th matrix; there are some things called attachments, which are basically the mini site profiles. That's what Doug is referring to.

But I would just as soon find out where we are within the matrix, starting from the beginning.

Now I'm afraid that I am missing

the most updated matrix, but I left off, in the 3/12 version of the matrix, the last finding I have is 156.1, where we have a resolution down there. Actually, it is 155 was the last one I have a resolution for, which was no action necessary. But that was an observation.

So then the next one, I don't know if, Stu, in your notes or anything, you show where we left off in this matrix, because I think we made it further.

MR. HINNEFELD: The last note I have actually refers to 144.2.

CHAIR GRIFFON: Okay. Well, I'm not sure how much headway we are going to make on this until we find our notes.

MR. HINNEFELD: Okay, I've got a file; I think it is from you, Mark, on April 13th. Is that the one you are working on?

CHAIR GRIFFON: Yes, I don't know. Now that could be the updated one. Did you find that? What does that have as far as in

the matrix? What is the tail of the file?

MR. HINNEFELD: The file is 8th 30-case matrix from Mark April 13, '09.

CHAIR GRIFFON: Okay, that might be the one I made my revisions in that's on my other computer at home. Can you email that?

MR. HINNEFELD: I can email it to everybody.

CHAIR GRIFFON: All right.

MR. HINNEFELD: Let's see, we have highlighting into the 150s, through 153 maybe.

CHAIR GRIFFON: Oh, is that it?

MR. HINNEFELD: Well, I don't know. That is the last highlighting I see.

MEMBER MUNN: What was the date again?

MR. HINNEFELD: It is April 3rd, '09.

MEMBER MUNN: Thank you.

CHAIR GRIFFON: If it stops at 155 --

MR. HINNEFELD: It stops at 155.

It sounds like it is the one you've got.

CHAIR GRIFFON: Then it is the same thing. Yes, it is the same thing I have.

MR. HINNEFELD: Yes. Okay, so I've got that one.

CHAIR GRIFFON: Well, I'm not sure how much -- let's see. We don't have the transcripts from this meeting, do we?

MR. KATZ: From?

CHAIR GRIFFON: From the last Subcommittee meeting, April?

MR. KATZ: We should.

CHAIR GRIFFON: I mean, do you have them that we can find out where we left off on this?

MR. KATZ: Let me ask Zaida to send them to me.

CHAIR GRIFFON: Yes. Alright.

MR. KATZ: I might be able to pull them up. Do you want me to look for that?

CHAIR GRIFFON: The only reason I'm saying is we could skip the ones that were

covered in the last meeting and then start from there on.

MR. KATZ: They should be on the website by now.

MEMBER MUNN: They should be on the website.

CHAIR GRIFFON: Oh, are they posted already?

MR. KATZ: If you had done it, then they should be --

CHAIR GRIFFON: I'm the bottleneck, huh?

(Laughter.)

MR. KATZ: They should be posted.

CHAIR GRIFFON: Then they're probably not, no.

Let's see who finds them first.

MEMBER MUNN: What was the date?

CHAIR GRIFFON: April 15.

MEMBER MUNN: That's when the meeting was?

CHAIR GRIFFON: That's what we

have been saying.

MR. KATZ: Is somebody at the website.

MEMBER MUNN: Yes, I'm looking.

CHAIR GRIFFON: April 16th.

MEMBER MUNN: April 16th.

CHAIR GRIFFON: Right.

Are they still on your desk, Emily?

MS. HOWELL: I don't do that. For once, it's not me.

(Laughter.)

MR. KATZ: We have someone do that, but they don't take long, and the PA part isn't the hang-up.

CHAIR GRIFFON: So you think those are with me?

MR. KATZ: I think they're with you.

CHAIR GRIFFON: Well, Stu probably has the draft ones, right?

MR. KATZ: No, no, he wouldn't

have gotten them, but I can get the draft. Let me email Zaida.

CHAIR GRIFFON: We don't have a lot of time left today anyway, but at least we can find out where we left off, and I'll look. They have to be on my other computer.

MR. FARVER: Yes, we definitely need to get an updated read-only file.

MEMBER MUNN: Yes.

MS. ADAMS: Ted, what do you need me to send you? Zaida may be on her way.

MR. KATZ: Oh, okay, thanks. Hi, Nancy.

The transcript from the April 16th Subcommittee, Dose Reconstruction Subcommittee meeting.

MS. ADAMS: Okay, I will get it to you.

MR. KATZ: Thanks.

It just came to me. Did it come to you, Mark?

CHAIR GRIFFON: Can you forward

it?

MR. KATZ: Yes.

CHAIR GRIFFON: Because I can't find it. We've got an app for it.

MR. KATZ: I will forward it to you right now.

CHAIR GRIFFON: Is this a draft?

MR. KATZ: Yes.

CHAIR GRIFFON: Okay. I think our app won't show it until it's final.

MR. KATZ: Right. I just sent it to you, Stu. I will send it to Mark again, too.

MS. ADAMS: This is Nancy. Ted, that is the original transcript.

MR. KATZ: That's good. I will send it. It just means that it will have some problems with it, but it is the draft.

CHAIR GRIFFON: Did I review that yet, Nancy?

MS. ADAMS: I don't know that I have your comments. I would have to go back

into that.

MR. KATZ: If it is not on the website, it means you haven't cleared it yet.

CHAIR GRIFFON: Right.

Did you forward it to me?

MR. KATZ: I did.

CHAIR GRIFFON: Okay.

MR. KATZ: I sent it to you and Stu.

CHAIR GRIFFON: All right, I'm waiting.

MR. KATZ: It has to go to CDC and then to you.

CHAIR GRIFFON: Yes.

MR. KATZ: But if you're actually looking in your email at CDC, that will come quicker to that than your -- except I didn't send it to there, right? I sent it to your regular email.

CHAIR GRIFFON: It would take me about 10 minutes to log in.

MR. KATZ: Stu, have you gotten it

yet?

MR. HINNEFELD: I have the transcript. I'm working backwards.

MR. KATZ: Okay.

CHAIR GRIFFON: It should be at the tail end, and write it down.

Oh, there it is, okay.

MEMBER MUNN: If you have it, you might search for 155.

MR. KATZ: What are we searching for exactly?

CHAIR GRIFFON: Well, the last case that we discussed.

MR. KATZ: What is a term I can search for?

MEMBER MUNN: Tab 155 would be a good place to start.

CHAIR GRIFFON: Yes, 155.

MR. KATZ: Tab 155?

MEMBER MUNN: Tab 155.

CHAIR GRIFFON: Yes.

MR. KATZ: Okay.

MEMBER MUNN: No luck?

CHAIR GRIFFON: I don't see anything else on Bridgeport now. I'm right at the end. Is Bridgeport one of the attachments?

MR. HINNEFELD: Yes. We seem to end at talking about Bridgeport.

CHAIR GRIFFON: Bridgeport, yes, because I see a comment that I would like to do Harshaw, but I think we are too tired. So Bridgeport was the last. Is that attachment 1?

MS. BEHLING: Yes, Bridgeport is attachment 1.

CHAIR GRIFFON: Okay. And 2 is Harshaw?

MS. BEHLING: Yes.

MEMBER MUNN: Yes.

CHAIR GRIFFON: I mean the only thing from my standpoint; I think it is more important to get the files with the NIOSH responses rather than have a description of

these findings now at the end of today, when the next time we meet I will need another description of them, you know.

MR. FARVER: Yes, that's true.

CHAIR GRIFFON: So I'm not sure it is worth our energy to go through and have SC&A describe the findings.

MR. FARVER: Well, I thought I sent the matrix with the findings in it.

CHAIR GRIFFON: Yes.

MR. FARVER: And I may have that matrix on the other computer.

CHAIR GRIFFON: I know, and I have the same issues, yes.

MR. FARVER: So, until I get fully migrated over to this one, we both have problems.

CHAIR GRIFFON: All right.

MR. FARVER: I did find those responses, and I emailed them to Stu. I don't know if you got them yet.

CHAIR GRIFFON: But before we went

to Bridgeport, did you find out if we just left off on 155 or if we got further than that? Because just in terms of preparing for the next meeting, I would like to know where we left off.

So we had a preliminary discussion of Bridgeport, which is in this transcript.

Did anybody have any luck finding out what tab we left off, what number?

MS. BEHLING: The notes on my matrix indicate that we stopped with tab 154.

CHAIR GRIFFON: So 154. Okay, so that was it? Then we went to the attachments. I guess we went from there to attachment 1, we decided, probably because Hans was available and we wanted to discuss that. So that makes sense. Okay.

Well, I think that's where we will pick it up next time. I mean I'm not sure -- Stu, do you agree? I will coordinate with Stu and Doug and get the 6th, 7th, and 8th matrix updated and sent out, and maybe we can talk

about how to post them in read-only format on the O: drive.

MR. FARVER: So we are going to start at 154?

CHAIR GRIFFON: Well, 156 really because we did 154, and then 155 was just an observation.

MEMBER MUNN: No action required.

CHAIR GRIFFON: Right. I believe.

MEMBER MUNN: Yes. That's what your file says.

CHAIR GRIFFON: Yes.

MR. FARVER: So we are at 156?

CHAIR GRIFFON: Yes, as far as the first run-through. Now that doesn't mean --

MR. FARVER: Oh, I understand.

CHAIR GRIFFON: Yes, there are other ones that have actions, but as far as making a first cut through.

MR. FARVER: Okay, I just want to make a note.

MS. BEHLING: Now my matrix shows

155 having several findings.

MR. FARVER: Eight.

MS. BEHLING: Eight findings, yes. I think there was one observation on 154, and I'm not sure that we actually talked about that one.

MR. FARVER: Well, 154 has five findings and one observation.

CHAIR GRIFFON: 154.

MS. ADAMS: This is Nancy.

If it is any help, this is about page 288 in the transcript.

CHAIR GRIFFON: Yes. Thank you, Nancy.

Tab 154, the observation, I show the one observation, too, Kathy, but it says the case is being reviewed under PER review.

MS. BEHLING: That's correct.

CHAIR GRIFFON: It doesn't really say anything more.

MS. BEHLING: Okay.

CHAIR GRIFFON: Yes. Yes.

MS. BEHLING: Right, but I think we will be starting with 155.

CHAIR GRIFFON: No, I have a bunch of comments on 155.

MS. BEHLING: Oh, okay.

CHAIR GRIFFON: I mean, in terms of a first cut through, I have a bunch of either SC&A agrees or -- so I have comments all the way through 155.4. There is an action. NIOSH will consider adding the instruction into the site profile documents.

MR. FARVER: I think we agreed with most of them.

CHAIR GRIFFON: There's a lot of agreement. NIOSH agrees no further action. SC&A agrees.

MS. BEHLING: Okay, yes.

CHAIR GRIFFON: So I go up through the end of tab 155.

MS. BEHLING: Okay. I think what happened there, I had to cut off early on that day.

CHAIR GRIFFON: Okay.

MS. BEHLING: And I may not have listed your last one.

CHAIR GRIFFON: I will make a real effort in the next couple of days, because I don't like to let these things sit because I forget where we are at, to get all three of these matrices out: 6, 7, 8, you know, updated and to everyone.

I will talk to NIOSH about how to get them on the O: drive in a read-only format, so we don't have this issue of leaving them on other computers and stuff.

MEMBER MUNN: As long as what you send me is not read-only.

CHAIR GRIFFON: All right. So I don't think we can go much further today, unless anybody else has anything they want to cover.

MR. KATZ: Do you want to book another meeting?

CHAIR GRIFFON: Yes, we should do

that. Let's book another meeting.

MR. HINNEFELD: On the 8th matrix, there are other NIOSH responses that were later, 156 and later. So, on those, SC&A is going to take the opportunity to evaluate what they thought of our response and determine. So we will be ready to discuss on those.

MR. FARVER: Yes.

MR. HINNEFELD: Then I will look for -- we may have some response. I'm trying to get responses back on the site profile.

MR. FARVER: Yes. I've been emailing them to you for Bridgeport.

MR. HINNEFELD: Thanks.

MR. FARVER: Because it was within a matrix. Harshaw was not in a matrix form. It was in a report form, which will have to be cut and pasted into the matrix.

MR. HINNEFELD: We can do that. We can do that.

MR. FARVER: I thought we had something from the Huntington plant, but I

can't find it.

CHAIR GRIFFON: I do remember --

MR. HINNEFELD: I know we have --

CHAIR GRIFFON: I know, now that we are discussing it.

MR. HINNEFELD: We have a Huntington finding from later on. I know that there are a number of Huntington findings from very early on.

CHAIR GRIFFON: Yes.

MR. HINNEFELD: And there have been some Huntington findings subsequently. I know that we have revised site profiles since very early on.

CHAIR GRIFFON: Right, right.

MR. HINNEFELD: And if these cases were all done in accordance with the first site profile, then it could be it resolved. I know we revised that site profile.

MR. FARVER: I thought you also provided responses to those files?

MR. HINNEFELD: I will, yes.

MR. FARVER: Well, I thought you had previously.

MR. HINNEFELD: Oh, okay.

MR. FARVER: You may not have, but --

MR. HINNEFELD: Okay.

CHAIR GRIFFON: Okay, what about dates?

MR. KATZ: How about the first week in November? How does that look for people?

MEMBER MUNN: Not bad, surprisingly.

CHAIR GRIFFON: Are there other meetings lined up in that time period?

MR. KATZ: No, there aren't, but the third week of November is a chopping block at this point. Then the end of that week, OGC is not available.

The second week in November, Veterans' Day is in the middle of it.

MR. HINNEFELD: There is a holiday

in there.

CHAIR GRIFFON: How about the 4th or 5th of November? Either of those a preference, Wednesday or Thursday?

MR. KATZ: They are both fine for me.

CHAIR GRIFFON: Okay.

MR. HINNEFELD: Good for me.

MR. KATZ: Emily, how do those look to you?

MS. HOWELL: They're fine.

CHAIR GRIFFON: Any preference one over the other?

MR. KATZ: The 3rd is great just because it gives a little latitude for other groups.

CHAIR GRIFFON: The 3rd is not good for me.

MR. KATZ: Oh, the 3rd is not? Oh, 4th or 5th, you said?

CHAIR GRIFFON: The 4th or 5th.

MR. KATZ: Oh, then let's --

MR. HINNEFELD: If you have any local elections or anything --

MR. KATZ: Oh, you're right, the elections, right. I'm sorry, I missed that.

MR. HINNEFELD: I mean it's not a big year, but there might be some local things.

MEMBER MUNN: But, nevertheless, there's a lot of stuff going on some places.

CHAIR GRIFFON: How about the 5th? Is that okay?

MEMBER MUNN: The 5th is fine with me.

CHAIR GRIFFON: All right.

MR. KATZ: The 5th is fine. Then if another Work Group wants to attach on either side of that, that works out well, too.

CHAIR GRIFFON: Yes. Now we don't know about John, but I will email him.

MR. KATZ: Right.

CHAIR GRIFFON: I would like him to be able to --

MR. KATZ: Yes, it would be good to see him.

CHAIR GRIFFON: Yes.

MR. KATZ: November 5. Okay.

CHAIR GRIFFON: All right, November 5th.

MR. KATZ: I'm going to book it for then.

CHAIR GRIFFON: Kathy, does that work for you?

MS. BEHLING: That's fine for me.

CHAIR GRIFFON: Can you be in Cincinnati with the dogs?

(Laughter.)

MS. BEHLING: If the dogs are invited.

(Laughter.)

CHAIR GRIFFON: Always. I think we use this hotel enough that we could probably swing that, you know.

(Laughter.)

MR. HINNEFELD: Right. As long as

we are down here, we ought to be able to put our menagerie on there.

Are we going to do a 9:30 start time?

CHAIR GRIFFON: 9:30, yes.

MR. HINNEFELD: I mean it doesn't hurt me.

CHAIR GRIFFON: 9:30. I don't think we need until 10 o'clock, although that was nice, but 9:30 is fine because I get in at 8:00 usually.

MR. KATZ: 9:30, done.

CHAIR GRIFFON: Okay. I'm sorry about the logistical problems, but we will have those worked out next time.

MR. FARVER: I hope so.

CHAIR GRIFFON: Yes. We missed a meeting there, and it threw us all off, you know. That wasn't my fault. Everybody's schedule was --

MEMBER MUNN: Yes, just terrible.

CHAIR GRIFFON: The Health Physics

meeting got in the way, too.

Alright. I think we are ready to adjourn.

Anything else?

MR. KATZ: No. Thank you, everybody.

CHAIR GRIFFON: Meeting adjourned.

MR. KATZ: Meeting adjourned. Thank you, Behling's and Liz, if you are still with us.

(Whereupon, the above-entitled matter went off the record at 4:06 p.m.)