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CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

convenes

WORKING GROUP

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

PROCEDURES REVIEW

The verbatim transcript of the Working Group Meeting of the Advisory Board on Radiation and Worker Health held in Cincinnati, Ohio, on July 21, 2008.

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C O N T E N T S

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P R O C E E D I N G S

JULY 21, 2008

(9:30 a.m.)

OPENING REMARKS

MR. KATZ: Good morning. This is the Advisory Board on Radiation and Worker Health, and this is the Procedures work group of that board. This is Ted Katz. I am acting as the designated federal official because Christine Branche, who ordinarily is in this position, is presently acting as the Director of NIOSH. So to start with let's take attendance. First, in the room if everybody on the Advisory Board that's with this working group would identify themselves to begin.

MS. MUNN: This is Wanda Munn, chair of the working group.

DR. ZIEMER: Paul Ziemer, member of the work group.

MR. KATZ: And that's it in the room. And on the telephone are there any Advisory Board members on the telephone?

MR. GIBSON (by Telephone): Yeah, Ted, this is Mike. I'm here.

MR. KATZ: Welcome, Mike.

Mark Griffon? Does anyone know is Mark --

MS. MUNN: He indicated that he would probably be late because of some medical problems in his family, but that he expects to be on hopefully by eleven o'clock.

MR. KATZ: Next let's just identify ORAU or NIOSH, OCAS participants in the room first.

MR. ELLIOTT: Larry Elliott, Director of OCAS.

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

DR. NETON: Jim Neton, OCAS.

MS. THOMAS: Elyse Thomas, O-R-A-U.

MR. SIEBERT: Scott Siebert, O-R-A-U.

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

MS. MAO (by Telephone): This is Rebecca Mao. I'm on detail at OCAS here.

MR. SMITH (by Telephone): This is Matt Smith with O-R-A-U team.

MR. KATZ: And now SC&A participants on the phone.

MR. MARSCHKE (by Telephone): Steve Marschke.

MR. KATZ: Arjun, are you attending?

(no response)

MS. MUNN: Steve, to the best of your knowledge, are you the only one who's going to be on for SC&A?

MR. MARSCHKE (by Telephone): I thought Arjun was going to be on, but maybe he got caught up in the air traffic trouble.

MS. MUNN: Okay, thank you.

MR. MORRIS: This is Bob Morris with Oak Ridge team. I just joined.

MR. KATZ: Oh, great. Welcome, Bob.

Now other federal employees participating in the room.

MS. HOMOKI-TITUS: Liz Homoki-Titus with Health and Human Services.

MR. KATZ: And on the telephone?

(no response)

MR. KATZ: And then anybody else who would like to identify themselves who's participating by phone.

MS. BRACKETT (by Telephone): This is Liz Brackett. I'm with the ORAU team. I just joined.

MR. KATZ: Oh, welcome, Liz.

MS. FERGUSON (by Telephone): Michelle Ferguson. I'm with the ORAU team.

MR. KATZ: Welcome.

Is there anyone else, congressional staff, that would like to identify themselves?

(no response)

MR. KATZ: Members of the public?

(no response)

MS. MUNN: Thank you, Ted.

MR. KATZ: It's all yours, Wanda.

INTRODUCTION BY CHAIR

MS. MUNN: Thank you very much.

Everyone I hope has a copy of the agenda. Does everyone on the phone have a copy of the agenda as well? We're not going to go down these in order. It was not my intent. I just wanted to get those items on your desk so that you could see what we were hoping to accomplish today. We have information that Mel Chew will be with us at ten o'clock.

Bob, we're glad you're already on. Thank you.

Perhaps before we undertake OTIB-0052 at ten o'clock, we can run through our first

item that the list of items, the discrepancy items, that Steve Marschke had noted for us from the database. I hope that those will be fairly easy to go through if we can take them one at a time.

Stu, could I ask you to start with the item entitled, “Resolution of discrepancies in database”?

RESOLUTION OF DISCREPENCIES IN DATABASE ITEMS

MR. HINNEFELD: Friday we did finally get the latest version of the database copied over to the NIOSH side. If you recall this database resides on the ORAU system, and when we want the updated version we simply call it over and have it transferred so we have the latest version. And it appears that there was something about that copying over that wasn’t working exactly right because we would think we had it, and then it wouldn’t be updated. But Friday we did get the updated version and I checked all of these, and the NIOSH status is now matched on Friday, I better not say today, on Friday the NIOSH statuses matched what the BB on all four of these documents.

MS. MUNN: So TBD-6000 BB item 13 is in

progress?

MR. HINNEFELD: There are 13 items in progress.

MS. MUNN: And they're all in progress?

MR. HINNEFELD: They're still in progress on the NIOSH side. They did on Friday.

MS. MUNN: And OTIB-0002, those seven are all showing open.

MR. HINNEFELD: They're open, yeah.

MS. MUNN: And PROC-0080, two items show closed. And PROC-0095, those three items show open.

MR. HINNEFELD: Yes.

MS. MUNN: Good.

Steve, did you have any comment to make on that, one way or the other?

MR. MARSCHKE (by Telephone): No, I think that I agree with the situation as it is now.

MS. MUNN: Good, thank you very much.

FULL REVIEW OF DATABASE CONVERSION TO SQL STATUS

As long as we're talking about that database, and the first item that we mentioned on the agenda was reviewing the database conversion to SQL, do we have, is it going to take us more than 15 minutes to address that,

do you think?

MR. HINNEFELD: Well, probably not because I don't know enough about it to talk longer than that. Because I just started trying. I can show you a demo of what the SQL procedures tracking application looks like. Now this is an application, I think if I can get the TV to work, if the TV and my computer will both work.

This is a document tracking application that we had in place for tracking documents that are reviewed. And these are documents that are the contractor prepares it; they submit to us for review and approval. This would track our review and approval on those, including our comments and comment resolution. And I think evaluation reports probably are going to be in here eventually.

And this will be sort of a modular system that will allow very many of these document review applications to be captured on a single system. And so all the work that we've accomplished then we can have a record on this one system, all the work that's gone on. It is structured such that various people

have various rights to different types of documents. So they would be able to view, and in some cases write to, the database for the documents that they have business looking at.

So the Board review documents would be a particular category of document here that the Board members could look at, SC&A members certainly, maybe designated ones, whoever SC&A designates to want to be able to see it and ORAU and NIOSH people would be able to look at it. And so it's a comprehensive, it wasn't built specifically for procedures tracking, procedures review tracking, but it's to adopt this structure for that.

And this would then allow everybody to write to the same system, the SQL has the advantage over ACCESS in that you can write, we can write on our system, ORAU can write on their system, everybody can write on their own system, whatever system you write to, SQL will keep track of that so everybody will see all the up-to-date changes.

This is a work in progress. This was rushed out for me to be able to show today. So there are things that could be done, things

that could be done to modify this if need be, I think. Since I don't have to do it, I can speak with assurance that someone can. And so I'll try to get whatever demo I can have.

I do have a little bit of a users' guide that I may have to refer back and forth to and then when I do it will show up on the TV screen as well. This is the default. This is what it opens in when you go there. There's a location right now, I believe this is probably on a test server. I don't believe it's on an operational or production server right now. I believe it's a test server.

MS. MUNN: So we will have a specific icon.

MR. HINNEFELD: Yeah, there'll be a specific place where you'll look at it. So you go to the O drive. It'll be there, and it will open like this. And the default screen is the documents that are in the system. And in this case, these documents I believe are all the documents that are in the procedure review process, the Board's procedure review process.

MS. MUNN: Good. We're not going to make a mistake in getting these mixed up with any other database tracking that's going on.

MR. HINNEFELD: No.

MS. MUNN: Good. Thank you; that would really confuse me.

MR. HINNEFELD: The statuses that are in the system so far are completed, open and deleted. The reason for that is that we like in developing these to essentially limit the number of statuses because when you start adding specialty statuses, you end up with a lot. For instance, we made specialty statuses for dose reconstructions that we tracked through NOCTS.

We probably now have 30 statuses for dose reconstructions that are going through the system because when you want to keep track of the history of a document and its status, of a review in its status, then there are a lot of things you want to keep track of. And so you get a lot of different statuses.

The reason we have like 30 different statuses on dose reconstructions is we have open, completed, pended, which means that we need additional information in order to see. Pulled which means DOL has taken it back without a dose reconstruction being completed.

Then there are statuses to keep track of DOL returned cases, so you have all those statuses DOL returned and all those same statuses.

You have cases out of pending, you know, once a case gets pended, out of pending indicates that it was pended for awhile so there's an out of pending status. There are a series of reinstated statuses which are cases that were pulled once but then reinstated.

And so there are like 30 different statuses on dose reconstructions, and we feel like we've learned something from that and would rather limit the number of statuses. So the information we want to keep track of, which is like transferring to another tracking vehicle or things like that we would want to keep track of in another field. I don't know if those are built into here yet, but that would be something we would include as a way to keep track of what we want to keep track of without having a whole lot of statuses.

MS. MUNN: Yeah, that was going to be a concern I'd like to express. For example, at least I have found it helpful to delineate the difference between open and in abeyance.

We've been very clear about the difference in that in our case.

MR. HINNEFELD: I think we'll want to retain that just for ease of finding what you need to work on, you know, when you work with the database you want to keep that. But I think our preference would be to keep it in a field other than the status field, have the status field to be open or closed.

MS. MUNN: Yes, Paul?

DR. ZIEMER: I have a question, Stu. Could you clarify? Is this a separate database for you to track your procedures or is it a sort on the procedures database or is it both?

MR. HINNEFELD: I think probably they are, they could very well be linked, could be pulling data from the same data tables, but I don't know that that's the case.

DR. ZIEMER: Right now it's a separate database in your point of view simply --

MR. HINNEFELD: Well, we always think of these things as applications. You know, we have these data tables where we try to keep track of pretty much everything. And so when we have something like this, this is an

application that pulls data from whatever data tables it needs to pull it from in order to put in the usable form that you want it. So we have applications that work similarly. They're all in SQL. They kind of run on the same platform. They're applications that track dose reconstructions through the process, map a case as it moves through the process. They keep track of documents. We have another, a linked one that keeps track of SEC activities and what's happening to SEC activities. So rather than think of this as its own database, it may, in fact, require the addition of some data tables or data fields to existing data tables. But it pulls from data tables that we keep.

DR. ZIEMER: Well, I can't read it too well, but if you scroll down, well, let's say the first item, which looks like the ORAU procedure.

MR. HINNEFELD: Yes, that one is an ORAU.

DR. ZIEMER: And it says it's open. If you click on that, does that move it into or can you from this find the procedure review? Does it move it into the other database or is

everything that we have also on here? Or do we know at this point?

MR. HINNEFELD: I think probably the review of this procedure has not been loaded yet, but it could be linked to be brought up.

DR. ZIEMER: It could be or is that the intent? I'm just trying to get a feel for what this is compared to what we're doing.

MS. MUNN: Yeah, and I certainly hope that the intent is to link it because --

MR. HINNEFELD: You mean the document itself. You mean the entire document that SC&A wrote, the big, thick document?

DR. ZIEMER: No, no.

MS. ADAMS: Your comments.

MS. MUNN: We mean this.

DR. ZIEMER: If this procedure has been reviewed, does that show up here and does it, do the findings show up here?

MR. HINNEFELD: Yeah. I just clicked on it. I just didn't click on the top one, and it takes you to the detail page. And the detail is to now, the detail displays here. These are the assigned reviewers. These are the people who would see this when they open up

the application. So the members of these groups would see this.

DR. ZIEMER: So the SC&A findings show up here.

MR. HINNEFELD: Yes. And this defines document owners and editors. In other words that's changing this document here. I think if I can get that document --

DR. ZIEMER: It looks like they're already linked.

MS. MUNN: It looks like it, yeah.

MR. HINNEFELD: And so, yeah. So there's some fields that are not populated. I mean, we could populate these.

DR. ZIEMER: But at the front end does this show up as a separate entry into that from our --

MS. MUNN: Yeah, that's what I was asking will there be a separate icon for this.

MR. HINNEFELD: This will be, you'll have an icon that will take you to the default screen, which is where I started.

DR. ZIEMER: This starts out with a list of all procedures.

MR. HINNEFELD: All procedures reviewed.

That's where the application opens. The application opens by showing you that. And then what I did just a minute ago, I hope it does it again for me, I just clicked on that first one, on PROC-0097, and it took me to the detail sheet, the detail page for PROC-0097. And then I have noticed that the arrangement of these is upside down from what we've been using. Finding number one is at the bottom of the list. And it works up, and it works up chronologically.

DR. ZIEMER: The most recent ones at the top.

MR. HINNEFELD: So you can read in the description what, this is the SC&A finding. I think that will take you to the full statement of it, and actually, we can see what kind of data. Like I said, I got this Friday, and I didn't play with it a lot. It takes you to the full statement of the finding.

MS. MUNN: It looks to me as though we're almost there, but I'm not sure that it's workable for those of us outside the agency and SC&A yet.

MR. HINNEFELD: Well, we'll get user guides

out. I mean, we can send a user guide that gives some description on how to move around the fields or move around the screen.

MR. MARSCHKE (by Telephone): Stu, this is Steve Marschke. When will we be able to get access to the test server so that we could kind of go in and maybe play around with it a little bit and --

MR. HINNEFELD: Well, our hope, our expectation is to roll this out on the production server for the NIOSH users toward the end of this month. Now these dates are a little soft. And then after that we would have it available to ORAU, the ORAU side, and then once it's on the ORAU side on the O drive, then SC&A and the work group could have access to it. I mean, we could grant right away.

I think that modification to this won't be too terribly difficult. I don't think if there are things that we want it to look differently or if we want it to, you know like I said, certain data fields we want to add that are not there now, I think we'll be able to do that in a relatively

straightforward fashion.

MS. MUNN: Well, if those fields with which I was concerned are imbedded in the detail of the --

MR. HINNEFELD: Well, those show up in here, the detailed statements on the detail sheet. Now, I put PROC-0097, the thing to remember about PROC-0097 is we've not given you any responses on PROC-0097 yet. So if you look on the ACCESS database the only thing it will say is the statement of the finding. Now, if I pick a different one, and I don't know well enough ^ I'm going to go back to the document with this one.

MS. ADAMS: Try OCAS-0001. It had 17 findings, eleven are closed.

MR. HINNEFELD: Is that an OTIB or IG or what is it?

MS. ADAMS: It's an IG.

MR. HINNEFELD: And part of the delay here is that I'm on a wireless system going into my account at work. I think if you're on the O drive you can go quicker. Well, actually, we should see the status on this page and how many are opened and closed. Now, that was

changed late last week so this should be up to date I would think. So we should get the status of the number of findings, the number open on the first page. I forgot to look. This is IG-001, Rev. 2 had 24 findings and 13 were still active. Does that sound right? No?

MS. ADAMS: Not according to the chart.

MR. HINNEFELD: Is that Rev. 2 that you're looking at?

MS. ADAMS: No, I was looking at Rev. 1.

MR. HINNEFELD: Well, it may not be loaded yet because they haven't gotten everything loaded yet.

MS. MUNN: Rev. 1 shows on Nancy's list is 17 ^ findings. Rev. 2 --

MS. ADAMS: Eleven closed and five in abeyance and one transferred. I picked that one because it had the various categories.

MR. HINNEFELD: I don't know. Maybe they've not loaded all the data yet because like I said, they were struggling to get this up to date, and I suspect they haven't loaded the two datasets yet.

MS. ADAMS: That could be it. And when I

talked to Leroy on Friday, what we were trying to do was just to get the summary tables together so we could see what had changed since the last meeting.

MS. MUNN: Yes.

MS. ADAMS: And what we passed out here is the report of the summary of the status of things.

MR. HINNEFELD: So I think what you have is correct because I wouldn't trust that they've loaded all the data in this database for this demo. I noticed that on one of the summaries is OCAS PR-3, where there's a total of 11 total and 11 closed. Those numbers, in fact, do match, eleven findings total and none of them remain ^. So that number does match with OCAS PR-3.

MS. MUNN: You've got four total findings and four are open?

DR. ZIEMER: That's five.

MR. HINNEFELD: No, it's -- yeah, that's five. PR-3 has 11.

DR. ZIEMER: There's 11 and 11. Eleven findings, 11 closed.

MR. HINNEFELD: PR-5 does, in fact, show

four total findings and four all open.

MS. MUNN: Why do we have two PER-3 with zeros?

MR. HINNEFELD: PER-3 what now?

DR. ZIEMER: Oh, no, that's IG-002. It's just up a line.

MS. MUNN: PER as opposed to PR, okay, got it. That's new to me, sorry. Get my alphabet right.

Well, with any luck at all probably by our next meeting this conversion will be further along so that it'll be a little easier for us to ask specific questions, right?

MR. HINNEFELD: Right, and I did want to show that on a procedure where responses have been made -- I'm going to go with three and hope that this is, in fact, fully loaded -- when you look at the detail screen --

DR. ZIEMER: Which one is this?

MR. HINNEFELD: This is OCAS PR-3. You will see the SC&A finding and directly on top of that in order are the discussion that is in the database, the detailed discussion, so there are the NIOSH fields, the work group directives, are in there in the detailed

discussion. And I believe if you would click on these it will open up the full text if the full text doesn't display in the box.

Now this is a very short text so it's a very short response and so it's probably going to show up in the text box, the description box on the previous page. Now you should be able to navigate with your navigation buttons up here. If you hit back, it should take you back to the last screen.

MS. ADAMS: The hope with where we're going on this is that these are all the modules of a big system and that eventually if you pull up one of these documents, it will tell you how many SECs are affected by it, how many claims are affected by it, how many findings.

I mean, that it'll be anything that you want we'll be able to tie it in and you'll be able to see what kind of an effect your decisions or your work will have as a result of working on this or on the other side coming back the other way.

MS. MUNN: Things well outside the purview of this work group. Everything.

MS. ADAMS: Correct.

MS. MUNN: That would be nice.

MR. HINNEFELD: Well, the idea is to have a system to keep a record of the work that's accomplished. And so it would all be there. It would accommodate transfers from one work group to another quite readily. It would do all that because all this data will be in the data tables and the application, you just pull the ones you want.

MS. ADAMS: And nothing's being deleted.

MR. HINNEFELD: Right.

MS. MUNN: Very good. Anything else we need to say about this right now?

MR. HINNEFELD: Well, so far I have that I know we should include the data about sort of the secondary status information, whether something is open, but it is in progress, but we have been discussing it. Or if it's open and in abeyance, meaning that we have promised to revise the document but have not done it. So we would need that additional data field to keep the information that we have currently in statuses and so that we can look at that and select on that.

So if we just want to look at the open

findings, the ones we really haven't discussed yet, we'll be able to find those readily. And then, for instance, I can look at the in abeyance ones to check and see if we've issued that document yet. So then the feeling being then the document revision's okay, and we can move it to closed. So that's one thing I know that we want to do.

MS. MUNN: And that's good. I'd hate to lose the specificity that we worked on trying to establish these various levels of status in the work we've done.

Yes, Paul.

DR. ZIEMER: Just out of curiosity, Stu, could you look at the one, it's O-R-A-U OTIB-0004 where there've been six items transferred? What is that going to look like?

MR. HINNEFELD: I don't know because I don't know that I had a discussion with the TST guys --

DR. ZIEMER: What would show up here on your --

MR. HINNEFELD: We can make that either. We can set the business rules for that.

DR. ZIEMER: Yeah.

MR. HINNEFELD: And if something is transferred, we can call it closed.

DR. ZIEMER: What shows up now --

MR. HINNEFELD: I'm going to check because I don't know. You said OTIB-0004?

DR. ZIEMER: It's OTIB-triple-0-4, Rev. 03. It's an O-R-A-U...

MS. MUNN: That will be one of the more complex trappings I would think.

DR. ZIEMER: The SC&A sheet shows six items transferred out on that one.

MR. HINNEFELD: How many does it show closed?

DR. ZIEMER: And two closed. And then there's two others. On this SC&A sheet it's fourth from the bottom.

MS. MUNN: Someone on the phone is trying to say something.

MR. MARSCHKE (by Telephone): There's two addressed in other findings.

MR. HINNEFELD: Okay, OTIB-0004, here it is. It shows 21 findings and ten of them still active, but that is different than...

MR. MARSCHKE (by Telephone): Yes, but that's basically the sum from Rev. 2 and Rev.

3, is 21.

MR. HINNEFELD: Aha. And so if it is, in fact, showing the sum of those two revisions, then it shows ten remaining active, so that counts all the in abeyance and transferred and addressed in finding, blank, in the, because those are the ten active according to the status report. So then those are counted as active with the two status.

MR. MARSCHKE (by Telephone): So anything that's not closed is open.

MR. HINNEFELD: Correct.

DR. ZIEMER: So the two from Rev. 2 carry up to --

MR. HINNEFELD: Well, I think that might be a glitch. I think we may need to fix that and make sure that those are, I would guess you would want them to appear separately.

MR. MARSCHKE (by Telephone): That's the way we've been doing it, yeah.

DR. ZIEMER: Yeah. There's two in abeyance from Rev. 2 and then Rev. 3 stands on its own I guess.

MR. HINNEFELD: I would think that we would want to keep those, rather than see them

consolidated in two different reviews, essentially two different versions of a document. You'd want to see each of those reviews separately.

DR. ZIEMER: The six items that transferred though, do they show up currently on your --

MR. HINNEFELD: Well, I should be able to find the detail on them, and I don't know if they were transferred to another procedure if they would show up there or not.

MS. MUNN: That's been one of our concerns from the outset is to make sure that when we complete something or transfer it that it doesn't fall through a crack somewhere and disappear. So that cross-checking --

DR. ZIEMER: There's a transfer there on the right, Stu, right there. See that one on the right column? So that one does show up.

MR. HINNEFELD: This says it was...

DR. ZIEMER: So this is estimate of maximum particle -- plausible dose for workers.

MS. MUNN: Then if it was transferred to another procedure somewhere, then we need to know where that is.

MR. HINNEFELD: I bet this was, since it's a

PROC-0004 thing, I bet it was to universal scientific issues, or what do we call those? Overarching issues?

MS. ADAMS: Overarching issues.

MR. HINNEFELD: I bet it was to that since PROC-0004, but I don't see it right now so that's something else we need to keep track of.

MS. MUNN: But we need to be able to know where it went to. And not only do we need to be able to know where it went to, we need to be able to have assurance that its resting place is addressing it properly. And we can't just walk away from it.

DR. ZIEMER: So right now you do show that it's been transferred and then that detail is not fully there, I guess, at this point.

MR. HINNEFELD: Yeah.

MS. MUNN: It may be too early a day for us to be trying to get much further with that. Do we need to say anything else about that right now? I'm assuming we'll have chapter two at our next meeting, whenever that might be.

MR. HINNEFELD: Sure, it may be even

available before.

MS. MUNN: Good, that's great.

Let's close that item and go to our ten o'clock item. Has Mel Chew joined us?

MR. CHEW (by Telephone): Yes, I am, Wanda. I can hear you. Can you hear me?

MS. MUNN: Yes, we can. You're coming through loud and clear.

MR. CHEW (by Telephone): Thank you very much. Good morning, Wanda.

MS. MUNN: Good morning. We're glad that you can join us now.

DR. MAKHIJANI (by Telephone): Arjun Makhijani has also joined you.

MS. MUNN: Hi, Arjun, good. We have you both. Thank you very much.

MR. CHEW (by Telephone): I think Bob Morris is on the line.

Bob, are you there?

MS. MUNN: Bob was on early on.

MR. CHEW (by Telephone): Good, wonderful.

OTIB-0052

MS. MUNN: We have all three of you. That's great. We want to begin this by having Steve address the items in OTIB-0052 that we have

outstanding and that are still being discussed as not yet agreed upon. Who do we want to take the lead on that?

Stu, do you want Steve to do it or do you want --

MR. HINNEFELD: Well, I would like either Jim or whoever Jim designates.

DR. NETON: Well, I would actually prefer if Steve would kick it off with his findings that he feels remain open, and we could take the discussion from there.

MR. ELLIOTT: Could we find out how long Mel has to be available for us because I know he's going to go to the Savannah River site for document review shortly.

MR. CHEW (by Telephone): Yeah, I'm good. Is that you, Larry?

MR. ELLIOTT: Yes.

MR. CHEW (by Telephone): I'm here. I'm actually at the Document Center so they set me up with a conference room and a telephone, and so I'm good. And so I'm just waiting for Tim and Sam and Brent to arrive and so they'll be here about one o'clock. So I'm in your time.

MS. MUNN: Wonderful, thank you.

DR. NETON: I thought if Steve could kick it off the findings that, you know, I think there's six that remain open.

MR. MARSCHKE (by Telephone): Okay.

DR. NETON: Just generally state the issue and then we can discuss it. We don't have any formal handouts for this meeting. They were late coming and rather than confuse everyone with putting out things that they could read at the table, we thought we would just engage in a dialogue with where we are right now in our thoughts on these six findings.

So, Steve, it's yours.

MR. MARSCHKE (by Telephone): Okay, I'm just looking at, just reading, one of the reasons in the, the finding was plutonium and/or uranium were used for comparing internal doses. What about other radionuclides?

And I guess the NIOSH response was the vast majority of the bioassay at the DOE complexes is for plutonium and uranium, data on other radionuclides is limited the results. Consequently, meaningful comparison between groups for the less prominent radionuclides were not judged to be feasible.

And what caught my eye on that is feasible or not, it shouldn't be the criteria. It's whether or not it's necessary. So I was just, I agree with the response that saying, yes, the vast majority of the bioassay data is for plutonium and uranium, but the fact that there are smaller amounts of data, if any data, for the other radionuclides.

I mean, what is the scientific or technical reason for not using that data or for using the plutonium and uranium data only and not using any data for like cesium or if they have any data on that. I guess that's really my, the reason I kept that open was less prominent, comparison between groups of less prominent radionuclides it may be necessary to do less prominent radionuclides if the plutonium-uranium doesn't always dominate.

MR. CHEW (by Telephone): Jim, do you want me --

DR. NETON: Mel, why don't you kick that off?

MR. CHEW (by Telephone): Steve, thank you very much. I understand your comment. I

think it's clear. Actually, we looked. Remember, this is what we tried to do is to look at what construction workers might have been exposed to and even unmonitored construction workers looked at. But as we went and gathered data from all the sites here, we certainly saw occasionally bioassay results for some of the other nuclides like you have mentioned here.

Then the key, the question, is were they were for the people who were working at the site on the processes or were they related to construction workers who were either monitored or potentially unmonitored. And I think our position at the time was that the few that we saw, and we looked at Nevada Test Site, INEL, Hanford, Savannah River especially here, there were very few that we did see was potentially even the exposures to the process people or the all monitored worker was most likely episodic especially.

There was nothing that you saw on a routine basis that they got exposures on a regular operation other than episodic other than the plutonium and uranium and possibly a

little bit of tritium here. And so the question was really that when we're focusing this document on making sure that we're looking at comparing the non-monitored construction worker to a construction worker versus looking at all of the people who were, the all monitored worker data.

We just didn't have enough data with what I would consider to make any kind of conclusion that would show that any of the information we would gather would make it statistically meaningful that unmonitored construction worker would have gotten even any exposure at all and that greater than people who were construction workers who were monitored as even compared to all of the other folks at the people who were in the process.

And so the answer to your question, Steve, I think we went to the information with the most data, and that's certainly the plutonium and the uranium were we able to find construction workers at those sites that were routinely monitored so we can have enough data to make something statistically meaningful here. So the bottom line is that some of

those unusual, some of the more unusual isotopes we just didn't find enough data to do anything with.

Jim, you want to add to that? I think that's where I am right now.

DR. NETON: Yeah, I don't know there's much more to add here other than if you look at what we set out to try to do was there were some assertions made by a number of folks that construction workers were more highly exposed than the all monitored workers or the regular staff at the site. So Mel went out and found the data we had, and we focused on areas where the data, like Mel said, were more abundant.

And correct me if I'm wrong, but I don't recall that we really found any real differences for the internal exposures at any of the sites save, I think, Hanford. And so that gave us a fairly good feeling that we were not seeing any major differences in the exposure patterns in those two types of workers.

I don't know how we could get much more down in the weeds on this given the data are not sufficiently robust on these smaller

levels of exposure or smaller, not levels of exposure, but smaller exposure scenarios I guess.

MR. CHEW (by Telephone): And remember, we're talking about internal exposures here and that's the real key. And when we actually looked at the data, and especially in places where we were able to pull out actual individual data for construction workers, you just did not see unusual isotopes here other than plutonium and uranium.

DR. MAKHIJANI (by Telephone): This is Arjun. A couple of things. First of all, if there aren't major differences in internal exposures between construction and production workers, that means construction workers were being comparably exposed. And then in the '50s and '60s in many places internal exposure coverage was really far from complete, and in some places was very, very spotty and the relevant radionuclides were not being covered.

Other than Nevada Test Site, let me just mention the various incidents, and this would be episodic, but it does go to how much exposure there might have been. All the

spills and incidents in the tank farms and some on the early site and I'm not as familiar with this as at Hanford, but one wonders whether the people who handled that, the construction workers, the trades people, were monitored for radionuclides that were fission products that would be the main thing in the high-level waste in the tank farms. So these other -- it's not a question of degree of exposure I think. I think the item is what happened to the other radionuclides, or are we ready to say that they're not relevant.

MR. CHEW (by Telephone): Well, I think I agree with you. I don't think they are relevant, and I just think I agree, I think, Arjun, especially with the construction workers or even the unmonitored construction worker. The only records that we have obviously would be the construction workers who were monitored.

And so from what we saw, because I was able to try to pull data that we can use to say, yes, these people, the monitored construction workers, were exposed to these kinds of activity here. And in the results

that we saw we just didn't see a lot of what you'd consider the other radionuclides other than plutonium and uranium.

So I think we need to stand by that very fact that the likelihood of any exposures to even the unmonitored construction worker is even more unlikely as compared to even the ones that we did see for the monitored construction workers.

DR. MAKHIJANI (by Telephone): Well, I think you misunderstood me. I wasn't saying that I'm ready to say they were not relevant or we are ready to say. I was inferring that perhaps that might be where you're headed, but I'm certainly not ready for that. Because the situation is that we don't have data on these radionuclides, and in the absence of data how do we conclude that --

DR. NETON: Yeah, Arjun, --

DR. MAKHIJANI (by Telephone): -- exposure was not relevant when there was fission product exposure at least in certain specific situations.

DR. NETON: Arjun, I understand what you're saying, and I think we tried to prove or

establish the general principle for this analysis, but I do agree that there's always going to be site-specific issues that need to be evaluated like possibly the ones that you just pointed out.

In fact, I believe that's the subject of an SEC that's ongoing right now. So we would handle those separately and not hide or bury our head in the sand and ignore those issues. But I think TIB-0052 as it's written does make the case for, there's the general case for the exposures and that we would need to address any site-specific things on a case-by-case basis.

DR. MAKHIJANI (by Telephone): You know it may be helpful if TIB-0052's revision, you know, as these issues are resolved, would mention the kinds of things that are not covered. Because if you were explicit that these other radionuclides are not covered, and these are the kinds of situations in which they should be covered, that would most help the specific dose reconstruction as well as the SEC reviews, both for your team that's doing it, and then when and if we are asked to

review it for the Board.

MR. CHEW (by Telephone): Yeah, but, Jim, I think I support what you're saying is what Arjun's saying is that in those particular cases it would be more site specific and it would be in the technical basis document talking about that particular site. And in order to put a general document out to cover all of the sites, then that will have a lot more detail for each of the sites and we don't have all the sites covered here.

DR. NETON: Well, I think some caveats put in the procedure might be in order as Arjun is suggesting and how we word that. I think we need to think about it, but I'm not in disagreement that there couldn't be some caveats provided in that procedure or in that TIB. So I think that's probably where we need to go with this at this point. So I don't know that there's much more to say on that other than we would point out in the TIB that there are some special cases out there that need to be considered.

DR. MAKHIJANI (by Telephone): And if there is a scarcity of data that, you know, as you

were saying, Jim, if the data are not there, then that also may be ought to be pointed out or if they're not readily available other than in individual files that that would be useful to point out. Or if there are certain periods involved where there should be particular attention.

DR. NETON: Yeah, we need to regroup and think about what language we might want to put in there. But I'm in general agreement with your thoughts, Arjun.

DR. MAKHIJANI (by Telephone): Thanks, Jim.

MR. MARSCHKE (by Telephone): Okay, we're in agreement or at least general agreement?

DR. NETON: It's not closed. We're in agreement that we're going to maybe craft some language to revise the TIB to explain what it really covers and what it might not cover.

MR. MARSCHKE (by Telephone): Thank you. That sounds good.

The next one that was up I guess was the finding number nine. The finding was evaluation of the DOE annual -- oh, this is for INEL, and the evaluation for INEL was based upon the DOE annual exposure report.

And our comment was there needs to be addressed the MUD dose database for INEL, and M-U-D stands for I don't know --

DR. NETON: Master Update Dump, I think, or something.

MR. MARSCHKE (by Telephone): -- something like that.

MR. CHEW (by Telephone): That's right.

MR. MARSCHKE (by Telephone): The NIOSH response was that the annual report equivalent for the overlapping time period. Really, I guess, maybe my comment wasn't, I was really, what I was comparing was Table 3-1. There is a NIOSH report out there. It's not prepared for this project, but it was prepared for --

DR. NETON: There's an epidemiologic study conducted by our health-related energy research branch at that time.

MR. CHEW (by Telephone): The cancer risk epidemiology study.

DR. NETON: Right.

MR. MARSCHKE (by Telephone): And they had a Table 3-1 in there that listed all the doses for all the years from -- I'm trying to pull it up here.

DR. NETON: Yeah, I've got it here. It's '79 through '98 is what it overlapped.

MR. MARSCHKE (by Telephone): Right, and that's what I kind of, in the response there, we kind of show that if you look at the OTIB-0052 doses, the millirems and the number of individuals, and you compare them to this Table 3-1, you get quite different numbers. And I just found, I just was wondering if there's any way we could reconcile those numbers or should we try and reconcile those numbers.

DR. NETON: Yeah, we've gone back and looked at that. I pulled out that original epi report, and one thing that stood out -- and Mel and his crew noticed this right off the bat -- was that the units of the dose in that table are millisieverts, not millirem. So they're off by a factor of a hundred.

MR. MARSCHKE (by Telephone): Oh, okay. That makes a difference.

MR. HINNEFELD: They claim they were millirem. They were millisieverts.

DR. NETON: Right, right.

MR. HINNEFELD: And so you're off by a

factor of 10.

DR. NETON: A factor of 10. When you re-do the table, the ratios --

MR. MARSCHKE (by Telephone): Go the other way.

DR. NETON: -- they go very much under one, so that reconciles that issue.

The other thing though that still concerned me a little bit though was that the total number of monitored workers were a little bit different by year. And in going back and reviewing that report, they actually included all workers at the INEL site which included the workers at the naval reactor facilities which are not covered under this program.

So that at least would explain some of the difference if not all of the difference in the number of monitored workers that were included in their study versus what we've looked at. So it's a slightly different population of workers I guess is what I'm saying. So it's not directly comparable to what we've put together for our analysis.

MR. MARSCHKE (by Telephone): I think you've

also answered the next one also, Jim. Because again, the finding 10 was talking about the similar comparing again to the --

DR. NETON: Right, and we have this written up, but obviously we didn't get it out in time for you folks to review it, so I guess maybe we should just write this up.

MR. MARSCHKE (by Telephone): Arjun, do you have anything to say on those two? But those two sound like they're really, there was an explanation and if I got the units right, there wouldn't have been too much problem in the first place, but Jim's explanation seems good to me.

MR. CHEW (by Telephone): Steve, that's very understandable when we all went to SI units and rems and sieverts here, we all got confused, too. It was difficult to keep straight, but it was pretty obvious when we looked at the NIOSH 2005, we can understand that that mistake was easy to make.

DR. MAKHIJANI (by Telephone): Yeah, I'll go with your judgment, Steve.

MR. MARSCHKE (by Telephone): The other one's number 11 is the fourth one that is open

or that we wanted to keep in progress and that also has to do with this IS 2005 epidemiologic study. And well known and documented --

MR. CHEW (by Telephone): Are you going to read your finding, which one you're on?

MR. MARSCHKE (by Telephone): Claimant favorability of OTIB-0052 approach for INEL, early period, internal dose to 1965 cannot be determined. And then basically NIOSH's response is internal exposures is well known and documented. And then I had basically in my follow up, OTIB-0052's section 514 states data for internal exposures for worker at INEL is not available. Also, NIOSH 2005 states until about 1965 construction and service workers had relatively higher percentages of internal dose than non-construction, non-service workers.

Both these statements lead us, SC&A, to believe that the INEL pre-1965 internal dose is not well known or documented. So I guess basically what we were doing is taking exception to your response saying that it is well known and documented when in '52 you say it's not available.

DR. NETON: Mel, I'll let you handle that.

MR. CHEW (by Telephone): Yeah, we --

MR. MORRIS (by Telephone): Can I make a comment?

MR. CHEW (by Telephone): Yeah, Bob, go ahead.

MR. MORRIS (by Telephone): It is well known. The internal exposures are documented. It's just not documented electronically so we couldn't analyze them as readily available data.

MS. MUNN: Excuse me, Bob. You're coming through very softly. And I don't know whether any of you out there are using speaker phones or not. But if you're not, please try not to use your speaker phone when you're communicating with us because we're getting multiple levels of voice strength here, and we do want to hear what you say. So please get on your handset when you actually want to talk. Thanks.

MR. MORRIS (by Telephone): What I was saying is that the INEL data are available and documented but not electronically available. So that was the beginning position in our,

that we weren't clear about, but we should have been in the response.

And then beyond that OTIB-0052 made no attempt to demonstrate claimant favorability for that period of time. We acknowledged that we didn't have the data to present a case for INEL because of the electronic formatting problem. Then if you wanted to go through and look at what NIOSH 2005 did beyond the fact that it included naval reactor facility people that were not covered, it also grouped construction trades workers and service workers together.

And OTIB-0052 didn't do that. Service workers were not necessarily defined as construction trades workers. If you look in OTIB or NIOSH 2005, Table 2-7, service workers included radiological service workers, and there were 2,423 of those. So we think that just including that kind of service worker, radiological service worker, in with construction trades workers would have biased the kind of information that you could gather out of the data as presented in NIOSH 2005.

DR. MAKHIJANI (by Telephone): How do we

handle the construction workers for INEL in that period, given the situation?

MR. MORRIS (by Telephone): They're handled just as any other sites' construction workers would be. They're taken to be represented by a population of all monitored workers.

DR. MAKHIJANI (by Telephone): But you don't have the electronic database so you cannot do any comparisons or find how you're going to deal with the unmonitored construction workers or what factors you're going to use in that period.

DR. NETON: Well, I think, Arjun, this sort of gets into this conceptual issue of what TIB-0052 is and isn't. We, Mel, set out to look at the general issue, which is are construction workers different than all monitored workers. And he went out and pulled as much data as was possible at all the sites, well, the sites that we felt were going to be, data were available and were somewhat representative of the different types of operations and activities that occurred within the complex.

And to the extent that was possible,

that was what was included in TIB-0052. INEL just didn't happen to have usable internal data. But given all the data we have at the other sites though it's generally indicative to us that the exposures were not, internal exposures, were not that different at the sites that we were able to find data for. So that's kind of where we're at with that.

MR. MARSCHKE (by Telephone): I think what I would like to see is the statement was saying that in '52 where the statement is saying internal doses for workers at INEL is not available. I'd like to augment that statement or replace it by what Bob just said about, you know, it wasn't available electronically, but we have no reason to believe that it was, you know, you can't use the same procedure that's being developed should you have a claimant who was a construction worker at INEL during that period of time.

I think that's what NIOSH's intent is, there's basically we have these general rules that are going to apply and the base worker or the coworker model will give you a dose at INEL, and then you're going to increase that

by -- well, I guess you're not going to for internal doses you don't increase it. The multiplication factor is one for internal doses. So basically what you're going to end up doing is using the coworker model to calculate the internal doses at INEL.

MR. CHEW (by Telephone): Steve, let me just add one more thing. When developing of OTIB-0052 it obviously the question that you brought up it begs the question. Since we would not be able to have enough bioassay data in an electronic form that we can use to make a comparison, we'd really, we went and asked and looked into some previous documentation about construction workers and especially internal doses to them.

This is really a quote from John Haran* and Braun* that we actually cited in OTIB-0052, and they made a statement. I recognize it as to the statement is that the internal doses especially to construction workers historically been a very minor contributor to the effective dose. Now, I recognize there's no values pointed out to it, but it basically gives us a confidence that

TIB-0052 in looking at all the sites that the construction worker there at INEL was most likely and probably no different than any else that we looked at. And so I think that's where we are.

MR. MARSCHKE (by Telephone): I think statements along those lines would go, they seem to be missing from OTIB-0052, and I think statements along those lines would be, would, you know, for us people who are trying to critique OTIB-0052, they would be very helpful if they were there. I realize that OTIB-0052 is primarily intended for the dose reconstructors, and they don't really need all that philosophy and background information. But for us who are trying to critique it, it is very enlightening, you know, these statements that you've given us now.

MR. CHEW (by Telephone): Especially remember OTIB-0052 is primarily the focus on are unmonitored workers that should be evaluated as compared and so that's the real focus here, and you're right. I think we can do that.

Jim?

DR. NETON: Yeah, I think we got the path forward here what to put in there.

MR. MORRIS (by Telephone): Yeah, in fact that statement is exactly in OTIB-0052 right now, Steve.

DR. NETON: That's in there but I think there's some other things that we talked about, especially what you brought up, Bob, that would also help substantiate that.

DR. MAKHIJANI (by Telephone): This is Arjun. I still have a concern about how do we make this kind of statement for 19, for the period for which we don't have an electronic database about the relative situation that INEL compared to the other sites? Because I know it was a pretty unique site in the early period. They built so many, and operated so many reactors.

And they were not production reactors like Savannah River Site and Hanford. They were more like, I don't know, Santa Susana. They were experimental reactors, you know, it was even much different from that. They had very unique reactors. They had naval reactors so it seems, I don't know what the technical -

- I’m uncomfortable about the technical basis of that statement.

MR. CHEW (by Telephone): Arjun, I think you’re familiar with INEL, the way it’s laid out. It’s a big site, and each of the locations where the things that you’re talking about, you know, the EBR-1, EBR-2, the chem plant, they were basically fenced off and cordoned off. And if people came in who were potentially exposed, they were monitored as they went in. That was a discussion that we had with the people who worked at the site.

As you all know it’s a big site and the majority of the construction worker was working at the site to construct the site itself, the roads and all those things that and they were probably the most likely unmonitored. But the likelihood of the having unmonitored construction worker entering those areas that you’re talking about we just didn’t have any evidence with discussions that showed that was going to be an issue here.

DR. MAKHIJANI (by Telephone): But there were no construction workers within these areas when we know they were all monitored --

MR. CHEW (by Telephone): Yes, there were --

DR. MAKHIJANI (by Telephone): -- for internal dose. The question is about internal dose.

MR. CHEW (by Telephone): Right. I understand.

DR. MAKHIJANI (by Telephone): And, you know, even at places like NTS in the period we're talking about internal dose coverage tended to be incomplete. And that's the source of my discomfort is that internal dose coverage was generally or often incomplete, and then you run a site that's very different than the other sites in many respects and then we're making a comparative statement. And that really does make me uncomfortable.

DR. NETON: Well, I think let us take a crack at beefing up that language and putting in what we talked about and see if we can get closer on this.

DR. MAKHIJANI (by Telephone): Okay.

DR. NETON: Hang on one second, Arjun, we're...

MR. CHEW (by Telephone): Jim, I think the way -- there's a little dead spot here, but

you say that we will look at it and see how we can add more to the language.

DR. NETON: I just looked at some e-mail traffic that's been coming through late breaking, and it appears that there may actually be some electronic information available that we could do some comparisons.

DR. MAKHIJANI (by Telephone): Okay, that would be very useful.

DR. NETON: We'll try to use whatever we have and beef this language up, and to the extent possible, look at the electronic information and see where we end up. And we'll prepare a more formal response for you guys to review.

DR. ZIEMER: The question, Jim or Mel, this is Ziemer. When you say that you don't have electronic data, does that imply that there's some data available in a different form that you'd be able to look at that just is not in an electronic database or what?

MR. CHEW (by Telephone): Bob, I think the answer is yes. The other day when there was, I had a discussion with Liz Brackett from Internal Dosimetry, she said that there were

internal information as regard to INEL, but it's not in electronic form. Am I saying this correctly?

DR. NETON: But it appears, Mel, now that there may be some electronic information. We probably should not discuss it much more than that other than to say we're going to go back and re-look at that issue.

One thing that comes to mind though is I think in some respects, I don't know how we capture this. We need to look at this in the context of how we are reconstructing doses for sites where the data are sparse. Typically, as you know, the sparser the data, typically, the more claimant favorable we get because we just can't, you know, we're trying to bound things rather than get an accurate number.

And to some extent I think we need to look at that when we're doing these construction worker sites. If we really have a very claimant favorable upper bound applied to all site workers then in my mind to a large extent that would envelope what the construction workers could also possibly have received. So we have to look at it in the

context on a site-by-site basis almost.

MR. MARSCHKE (by Telephone): I agree, Jim. I mean, basically, the OTIB-0052 methodology relies heavily on the coworker, the way you calculate the coworker dose which is done on a site-by-site basis. And so if the coworker dose is really the 95 percentile or whatever, it's going to be pretty conservative for the construction worker, the external more so than the internal because you're going to be multiplying the external by an additional factor of 1.4. So I agree. You can't really take OTIB-0052 in a vacuum.

DR. NETON: Right. Okay, I think we know what we need to do on this particular finding.

MR. MARSCHKE (by Telephone): The other finding, finding 13, was basically the construction worker dose need to be compared consistently to either the all monitored workers or the non-construction workers. In some sites you've compared the construction workers with all monitored workers. On other sites you've compared them only to the non-construction workers.

Depending on which you select, it

could have an effect on your overall ratio, your 1.4; 1.4 could either go up or down slightly. I don't think it's going to be a major effect. It's more I guess of an analytical nit maybe.

But it's just from an analyst's point of view, I would like to, it's just a little bit of inconsistency here, and it is going to drive the ratio for a given, when you roll all the sites together and come up with a combined ratio, it is going to kind of influence that somewhat. It would be good if it could all be done on the same basis. And again, finding number 14 is also a similar type analysis. In some cases the missing dose is rolled in before you do the ratio. In other cases, the missing dose is not rolled in.

And again, that's going to affect, when you roll in the missing dose, it's going to have the effect of driving down the ratio. And then some cases those sites that don't have the missing dose are going to have a higher ratio than those sites that include the missing dose. I don't know how you want to --

DR. NETON: Yeah.

MR. POTTER (by Telephone): This is Gene Potter from Mel's team. I've got a comment on that. Part of the reason some of those inconsistencies exist was because we were comparing two existing coworker studies. And therefore, when a coworker study that we were comparing to included missed dose, we included missed dose in our comparison to keep things on an even keel. It doesn't address the issue why inconsistency between sites, but we tried to be consistent with the sites so when we were comparing construction to non-construction or all monitored just basically has a lot to do with what was available to us.

MR. MARSCHKE (by Telephone): And I think that's okay, but I think what you need to do is -- now, again, this is one of the things which I think again from a reviewer's point of view this would be nice if this was pointed out and maybe, you know, something to the effect of saying that this has a small impact, a ten percent impact, a 20 percent impact, whatever it is, on the overall ratio and it's really not going to drive the results one way or the other.

I realize that it probably has the user of OTIB-0052 probably doesn't need to know this information or need to know the story behind this, but again, the reviewer of OTIB-0052 it would be nice if we had the story and also some idea of the magnitude of what the, if they had been done, what the magnitude of the impact would be.

MS. MUNN: Well, and even from an archival point of view it's helpful to have that kind of detail as long as it can be incorporated.

DR. NETON: I hear what you're saying. I think we can try to incorporate some language to that effect.

MR. CHEW (by Telephone): I think we all recognize the difference is probably not as significant and important as long as they, the comparison within the site is consistent and comparable, which was the case here. But I understand where you're going.

We did take the available data and clearly making sure that we sort out that we did try to identify clearly the construction workers within those particular sites and compared to many of the coworker studies that

were done for the all monitored one. I think you'll see that the probably it's going to drive down the factor or anything, but I can understand that the language that you want to will clarify that.

Is that where we are, Jim?

DR. NETON: Yep.

I think you're right, Steve, that takes care of number 14 as well.

MR. MARSCHKE (by Telephone): Yeah. And those are the six that we, I had basically still as in progress. And I guess right now the second and third one of those, nine and ten, I think we're ready to basically change our recommendation to have those closed. And the first and the last three I guess if I understood what NIOSH was saying is that those are really now going to be changed to in abeyance. We've kind of agreed on a path forward and NIOSH is going to work it.

DR. NETON: I believe so. That's my feeling.

MR. MORRIS (by Telephone): This is Bob. With regard to that finding number 16 where you recommend transfer to another work group,

I think that that's really not necessary. I think that we've shown that there's claimant favorability with OTIB-0052 and we also know that OTIB-0020 already contains the direction on the judgment process that you had asked for additional consideration to be given to. So I don't really see there's merit in moving this one to another venue to us again when we pretty much have information to close it right now.

MS. MUNN: What group did we recommend? I don't have the page in front of me.

DR. NETON: OTIB-0020.

MR. MARSCHKE (by Telephone): This is the question that there are certain construction trades which kind of tend to have higher doses than the construction trade as a whole, for example, pipe fitters comes to mind. And --

MR. CHEW (by Telephone): I think, Steve, if you remember we actually had quite a discussion on that the last time we met in August of last year, and we were able to break down especially with Savannah River different trades here. And I was able to show a graph of pipe fitters as even compared to the other

trades and compared to the construction worker. And there was about two years that we identified that the pipe fitters were slightly higher than, that stood out.

And remember that we discussed it that we even went back to the detail, a level of detail, and looked at what happened on those particular years and what caused that. And we had a discussion, and I don't want to go back and revisit that, but we had looked into the exposures of these pipe fitters in the canyons because they were doing certain activities to refurbish the canyons.

But I think clearly working within those particular area, those people were monitored, and the likelihood of an unmonitored construction worker actually going into those canyons and working as pipe fitters was just really highly unlikely because they were not only monitored, but they were probably cleared to some level for clearance wise.

So I can remember we had that discussion at length. There was probably, that was a very good ability for the Savannah

River data to able to break out quite a few of the different trades here, electricians, pipe fitter, millwrights and carpenters and et cetera. And you're absolutely correct. There was a couple years there that the pipe fitters did sit out, but we had that discussion I think.

MR. MARSCHKE (by Telephone): I remember our discussion, but again -- and if Arjun wants to chime in at any point -- I don't know whether your specific examples for Savannah River can be generalized across the DOE complex for other sites where pipe fitters, and again, we have these, and in any kind of distribution you're going to have some of the trade workers which are going to be on the high end of the distribution and some of them obviously will be on the low end.

And using the average construction trade worker for these guys who are on the high end of the distribution, generally, from an OTIB-0052 point of view, it would be claimant favorable. But from an individual claimant's point of view it may not be favorable. So, I mean, I have this, in my

mind claimant favorability has got two distinct prongs on it.

There's the, you know, what you do for a general methodology such as OTIB-0052, you tend to use a percentages, you know, 90 percent, 95 percent, something like that. And that ensures an overall general claimant favorability. But then when you come into a claimant's case, how do you make sure that what the analysis you do for him or her is claimant favorable for that particular claimant? That's something that really cannot be addressed in my mind in a general procedure such as OTIB-0052.

DR. MAKHIJANI (by Telephone): But, Steve, what we're talking about here, there's a third distinction which -- hello, am I coming through?

MR. MORRIS (by Telephone): Yes.

MR. MARSCHKE (by Telephone): We can hear you, Arjun.

DR. MAKHIJANI (by Telephone): There's a third distinction which is when you take the 95 -- When you're dealing with all construction workers together, then certain

groups of workers who were highly exposed may not be adequately covered. And that's what showed up with the pipe fitters. And, yes, we have discussed it, but I don't know that we've resolved it.

MR. MORRIS (by Telephone): This is Bob. Let me quote some stuff that Steve presented last August 29th. It's in the transcript that you guys could see if you wanted to go into it. But Steve just -- I'm skipping between paragraphs, but I don't think I actually perturbed what the meaning of what you said when I got my quotes out like this.

You took some sample cases and validated them so that you applied the OTIB-0052 methodology to construction workers and compared those results to the actual monitoring data. And when you did that, you found that OTIB-0052 was conservative. And you then said it wasn't a random test.

We tried to bias our individuals from those occupations that received higher doses like pipe fitters, and even in those cases we found that OTIB-0052 methodology generally was conservative, and you concluded by saying,

overall, we're happy with it.

Now you add that to the existing information that's in OTIB-0020 that contains direction on the judgment process that a dose reconstructor must use when applying process, when applying the 50^{th} or 95^{th} percentile values, and I think we got this one wrapped up.

MR. MARSCHKE (by Telephone): On the other hand what if you remember also, I don't know if I said it back in August, but I think we did 60 of those samples, and I think we did 20 -- if my memory serves me correct, we did 20 at each of three sites. And we did have a handful, and I can't, I'm not sure if I mentioned it last August or I don't know how many, but we did have a handful of ones that did fail.

DR. MAKHIJANI (by Telephone): And you're right, and that is covered in the report. The reason to cull it out is we made statements, you know, generally about OTIB-0052, and then we also made statements about the exceptional areas. And rather than rely on a transcript, I think I'd rather rely on our report where

these things are detailed quite specifically.

DR. NETON: Let me chime in here. It seems to me that the recommendation here would not be that hard for us to implement. I mean, the way I read this it basically says that we would put a statement in TIB-0020 alerting people that there may be certain classes of workers who could have higher exposures that we need to consider. And that's all it really says here.

MR. MARSCHKE (by Telephone): That's all we're looking for.

DR. NETON: To me it does not seem to be unreasonable.

DR. MAKHIJANI (by Telephone): No, and we've got these couple of examples, and if you could give the examples, that would be helpful.

DR. NETON: But I want to be clear though. I'm not saying that we're going to make a special class of pipe fitters, but if we are doing a pipe fitter, we might want to consider what those exposures may be in relation to the norm or something like that. And I don't have a problem with that.

MR. CHEW (by Telephone): Jim, are you

recommending that we put that in -0052 or go to -0020?

DR. NETON: This would go into -0020. I don't have a particular problem with putting some additional guidance language in there to make sure that something doesn't fall through the cracks is really what this is trying to accomplish.

MR. MARSCHKE (by Telephone): That's all.

DR. NETON: Okay, I'm okay with that.

MS. MUNN: Anything else on OTIB-0052?

(no response)

MS. MUNN: Everybody happy for the moment?

DR. NETON: For now.

MR. HINNEFELD: As the, now, SC&A just recommended that nine and ten they thought should be closed. So weren't we going to close those?

MS. MUNN: Yes, there's no reason to leave them open, is there?

MR. HINNEFELD: Okay, so then SC&A keeps up those datasets can change those statuses to closed then.

MR. MARSCHKE (by Telephone): Could you, the discussion that, I guess, Jim and Mel gave on

nine and ten, could we add that to the database?

MR. HINNEFELD: Yes, yes.

MR. MARSCHKE (by Telephone): And basically, you know...

MR. HINNEFELD: Well, we can do, I mean, we'll put the write up that you guys did into the database, or ORAU can do that.

DR. ZIEMER: The discussion.

MR. HINNEFELD: Oh, you can't? Well, we'd have to have them do it, what we wanted to put in.

DR. NETON: Well, I think what we might want to do here is just write up everything we've talked about here, provide it to SC&A, let them look at it, and close them all out at one time.

MR. HINNEFELD: Well, I would like to get those two closed. If we can get them closed, I want to get them closed.

DR. NETON: Okay, that's fine.

MR. HINNEFELD: I would like to provide those two write ups. I'm afraid, Steve, I'm afraid you guys will have to put it in the database right now. I don't think we can do

that yet. But you guys can put in what we tell you to put in --

MR. MARSCHKE (by Telephone): You can tell me what you, yeah. I was trying to take notes a little bit, and I guess --

MR. HINNEFELD: It's our obligation to give you that.

MR. MARSCHKE (by Telephone): We'll do that, okay.

MR. HINNEFELD: But we want you to write into, it'll be one of our response blocks which should be the next open block in the database. And then there's probably a work group recommendation or direction block if I recall.

MS. MUNN: I think so.

MR. MARSCHKE (by Telephone): That's right.

MR. HINNEFELD: Would the work group then agree that that direction would be that this finding would be closed? Or just something to that effect?

DR. ZIEMER: I'm okay with that.

MS. MUNN: Mike?

(no response)

MS. MUNN: Mike, are you there?

MR. GIBSON (by Telephone): I'm here. Yeah, I'd just like to read it over once it's done.

MR. HINNEFELD: That can all be provided to the working group members and to SC&A what we propose the NIOSH response to be, and we could even put in, it would be like a one-line statement on what we would think the Board's or the working group's direction was.

MS. MUNN: Correct.

MR. HINNEFELD: So we could put that in and share it with the working group and SC&A. And then if the working group agrees that it reflects what we talked about today, then they can tell SC&A, okay, you agree and that status can be changed to closed.

MS. MUNN: Very good. If you would, in fact, get that to us, then we'll do that. Get that one out of the way.

MR. ELLIOTT: Somebody has put us on hold.

MS. MUNN: I guess somebody has put us on hold. We need to remind people not to do that. But in any case are we at a point where we can take a break?

DR. MAKHIJANI (by Telephone): Ms. Munn, this is Arjun. Are we going to have any

further discussion on Procedure-0090?

MS. MUNN: Yes, we haven't discussed PROC-0090 at all.

DR. MAKHIJANI (by Telephone): When is that going to be? I have a, I'd like to rejoin this discussion at that time.

MS. MUNN: Well, I had expected 90 to be a fairly extensive discussion so perhaps if we said we would take that up immediately after lunch, would that suit you?

DR. MAKHIJANI (by Telephone): Yeah, that'd be fine.

MS. MUNN: All right, we'll try to address that at probably 1:15 this afternoon.

DR. MAKHIJANI (by Telephone): Thank you very much.

MR. CHEW (by Telephone): Wanda, this is Mel. So the OTIB-0052 team can be excused here?

MS. MUNN: As far as I can tell the OTIB-0052 team can go do something else?

MR. HINNEFELD: Yeah, I think Jim's leaving, too. He stepped away from the table for a minute, but I believe he is pretty much done as well.

MR. CHEW (by Telephone): Good, Stu.

MS. MUNN: Thank you all. We really appreciate it. We'll look forward to the work group receiving e-mails from progresses from SC&A and NIOSH moving forward on this one.

We're going to go on mute for 20 minutes. We'll be back at, by my clock, at 20 minutes after 11.

(Whereupon, a break was taken from 11:00 a.m. until 11:20 a.m.)

MR. KATZ: We're coming back on. This is the Procedures work group of the Advisory Board on Radiation Worker Health. We just had a break. And I'd just like to remind the participants on the phone even though I think we have very few members of the public, if any, when you, if you need to go on hold, please, unless it's very, very brief, please just break the line and rejoin.

Otherwise, we hear the beeping or whatever noise it might be. And if there is anyone else on the line, just listening, please just put your phone on mute, which if you don't actually have a mute button, you can just use star six. Thank you very much on

that.

MS. MUNN: Can we check to see if Mike is back? Are you back, Mike?

MR. GIBSON (by Telephone): Yeah, I'm here, Wanda.

MS. MUNN: Very good.

Has Mark joined us yet?

MR. GRIFFON (by Telephone): Yeah, Wanda, I did.

MS. MUNN: Well, good.

MR. GRIFFON (by Telephone): I sat through the whole break.

MS. MUNN: I'm sorry about that.

MR. GRIFFON (by Telephone): That's all right. I'm just glad to hear voices.

MS. MUNN: For your information we've jumped around a bit on the agenda. We covered the review of the database, the first item that was listed. We covered the resolution of discrepancies, the second item that was listed. We covered OTIB-0052 at considerable length. We've taken our break.

APPENDIX BB

Now it's our hope to talk about Appendix BB, the Landauer response and where

we're going to go with this particular item until the new work group is convened. And then we'll talk a little bit about the status. Hopefully, Steve can give us a, or someone from SC&A will give us a report on the status of OTIB-0070 before we break for lunch. We had agreed that our first item after lunch at about 1:15 will be PROC-0090.

That fit your schedule all right?

MR. GRIFFON (by Telephone): Yeah, thank you, Wanda; thanks for the update.

MS. MUNN: All right, Stu, want to talk about Landauer and where, generate some discussion about where we think we're going with --

MR. HINNEFELD: Yes, at the last Procedures work group meeting I was asked to see if I could find out from Landauer what calibration source they used for their film badges. They provided dosimetry service for General Steel, GSI, for some years, a couple of the covered years and then additional years extended beyond that. And we have all the readings that they have from those from their service there. They provided those to us upon our

request.

And we're actually, our main task here is to analyze that dataset to determine if it confirms or contradicts the models that are proposed for the external exposure. So that's the main thing. And really the big thing that has to happen next is we need to provide some additional responses based on our analysis of that dataset. That's really the next big thing that has to happen.

At the last work group meeting though there was discussion about film badge and energy dependence of film badge and what were these calibrated to, what were these badges calibrated to as I was asked to find out if I could from Landauer what source they used. And I found out actually really quickly after I asked. Craig Yetter* answered my e-mail pretty quickly and I think I forwarded that e-mail to the working group members, and I think to SC&A as well.

Craig responded they used a Cesium-137 source, and they, to his knowledge, they didn't have any record of receiving information from GSI about the expected photon

spectrum that would be encountered at GSI, and so they didn't make any adjustments to their cesium calibration. And then they reported their results, their dosimetry results, and then Craig added, and I don't know what adjustment we would make if they had told us which I think probably speaks to the kind of the health physics, I guess the conclusion that film is sensitive to radiation.

And it's radiation at photon levels below maybe what, 100 KeV or 200 KeV, something in that order. But when you get above the energy range for occupational purposes, the film response is relatively flat. So you don't normally worry about energy adjustments or energy adjustments to your calibration curve at higher energy photons. So that was the nature of it. So that was the exchange we had there.

Now, I don't know that most of us, I don't know if there's exposure potential for 25 MeV photons which I believe there's postulated to be a couple of scenarios, you know, almost direct beam exposure. And to be completely honest, when you're talking about

occupational physics, you don't normally think about 25 MeV photons. I'd have to go do some research, which I've not done yet, to really see if film remains flat in its response to energy up through 25 MeV. So that's pretty far above what you normally see in an occupational exposure spectrum, energy wise. So that's where we are.

MS. MUNN: Have any comments from SC&A?

MR. MARSCHKE (by Telephone): No.

MR. HINNEFELD: Sorry I didn't speak longer about that, Wanda, I just --

MR. MARSCHKE (by Telephone): We did receive Stu's e-mail, and you did not send it to Dr. Anigstein, so I have to forward it to Doctor, I don't know if John forwarded it to Dr. Anigstein or not.

MR. HINNEFELD: I forgot. I think I sent it to you and John and the work group members, but I don't know that -- whatever I sent to you that's what I sent to, so if Bob's not on there, I didn't.

MR. MARSCHKE (by Telephone): I don't know if Bob has seen this actually or not. I'm just now looking at it because I really wasn't

involved in BB, but I'm not sure that Bob has gotten this. So I'll forward this to Bob and see how he wants to use it.

MS. MUNN: Now, that's good. We've always sort of worked on the premise that anything that got to John would be distributed to the appropriate members of the SC&A --

MR. MARSCHKE (by Telephone): That's what I was working on, too, Wanda.

MS. MUNN: So we here just assume that if John gets it, it goes to the appropriate people.

MR. MARSCHKE (by Telephone): And that could very well be true. I mean, I don't know who John has sent it to. He very well might have sent it to Bob. I'll just forward this to Bob, and then Bob can have two copies of it.

MS. MUNN: That's good. But it sounds to me as though we still will be looking forward to another report from NIOSH with respect to some additional research on the 25 MeV.

MR. HINNEFELD: Well, yeah, I think that can be part and parcel of what our response is, our evaluation of the dataset. You know, we would want to speak to would the film badge

data be representative, would it record accurately the photons that the people were exposed to.

Now, we did find -- Dave Allen, who I don't believe is on the phone, I didn't ask him to sit in, I didn't really expect to talk very much about this -- he did show me fairly recently some information that may be relevant to whether to model some of the inverted Betatron issue. Do you remember the issue with the Betatron is that at some point the operators, the Betatron operators, have been pretty consistent in this point.

At some point they were instructed to invert the Betatron thereby overcoming its built-in swing volume so that items could be irradiated on the railway car. Because as it was normally configured, the Betatron would only shoot at the closed in wall of the labyrinth, so the rail came in sort of on the side of that. And if they would invert the Betatron 180 degrees downward and around, they could overcome those lug switches and could aim at an item on the rail car and could irradiate in that fashion.

And from the sketch of the building it appears that that would give you something of a 90 degree which would be the 90 degree linkage off the head of the Betatron, a 90 degree shot at some largely unshielded areas or at least only partially shielded that are occupiable in the adjacent building. Dave did find recently that, and also the operators who talked about inverting the Betatron all said that when this one particular person was the supervisor of the Betatron, he never had them do that.

And I don’t remember that person’s name. He was in the outreach meetings. They all said [Identifying Information Redacted] never told us to do that. It was only when he left and he was replaced by this other person who came from somewhere else that he instructed us to invert it and shoot at the rail cars. Well, when we looked at the employment histories for [Identifying Information Redacted], the one who had never told them to do that, his last day of employment was the last day of the contract to do the irradiations of the AEC work.

So it would seem from that that if once he left was when they inverted it, that that inverted position would not have been utilized during the covered period but only during the residual period when the photon dose from the Betatron isn't included. Because during the residual period you only reconstruct the residual of the AEC work if it's distinguishable. Clearly, the uranium contamination on the floor, the dose from that is pretty distinguishable from the dose from the Betatron.

So now that's sort of preliminary and it was just a matching up of dates that they just happened onto, I mean, just kind of stumbled onto by accident as he was working on our additional response. So it may reflect the scenarios that we have to address outside of the Betatron operators in terms of potential exposure to leakage from the Betatron head.

MR. ELLIOTT: As Dave's analyzing the Landauer data, are we not looking at some of the other comments that have been given by the Betatron operators such as they worked a lot

of overtime and the badges were only worn during a portion of their work?

MR. HINNEFELD: Well, what they would say is they wore their badge when they worked as an operator. I think what they said was when they worked as an operator, they wore their badge. But if they did a double shift, and their second shift may have been in the adjacent building, and is not in an operator's job, they wouldn't wear their badges. It was stored in the rack. So that's part of the situation.

But they didn't say they didn't wear it on overtime. If they spent ten hours on the Betatron, but they said they sometimes would work a double or something like that, not as a Betatron operator, and in those instances they didn't wear a badge.

MS. MUNN: This is a very limited pool of claimants, the operators, correct?

MR. HINNEFELD: Oh, well, it's limited. It depends on what do you mean by very. I think we may have over ten claimants who are operators. I don't really know.

MR. ELLIOTT: If you just talk operators,

yes, that's probably the ballpark.

MR. HINNEFELD: I'm not a hundred percent sure. It seems like there've been about ten of them that have spoken at the outreach meetings. I don't really know how many operators there were that are claimants that never spoke up at the outreach meetings.

MS. MUNN: Yes, Paul.

DR. ZIEMER: Couple points, just a reminder that for a 25 MeV, this is a 25 MeV electron accelerator, I believe.

MR. HINNEFELD: Right.

DR. ZIEMER: And I think the photons are a Bremsstrahlung distribution which means that the average energy is more like 8 MeV, the number of photons at 25 is close to zero.

MR. HINNEFELD: Correct.

DR. ZIEMER: And it's sort of a lognormal distribution, so in looking at the point at which you look at the energy dependence of the film badges, your focus should be down around 8-to-10 MeV which is where most of the X-rays lie.

MR. HINNEFELD: Thanks for that. You told me that once before.

DR. ZIEMER: The other thing -- it was more for the record, whatever works -- the other thing is that unless a person was in the direct beam, and I think that there was an orientation where they were saying that there could be direct beam down on the track. But otherwise they were talking about scattered radiation is number one is a small percent of the direct beam. Plus the energies are degraded considerably in the scattered beam as well.

MR. HINNEFELD: I think the aspect about the orientation, the reason why the inverted orientation is relatively important is in that orientation it appears that the leakage from the Betatron, and the Betatron doesn’t appear to be all that heavily shielded, so there could be some 90 degree leakage out of the Betatron head which may, in fact, be the Bremsstrahlung spectrum from that occurs in the head, degraded however it is by whatever shielding you have on the side.

And that may, in fact, have presented a somewhat unshielded, I mean, this is in the SC&A report, a somewhat unshielded beam of

that whatever leakage came out the side of the head kind of obliquely around the labyrinth wall, back down the railroad track a little bit and off into the actual building. But I don't recall how far that shielded labyrinth extends. I don't remember that sketch.

MR. MCGOLERICK: This is Rob McGolerick. Hello?

MR. HINNEFELD: I think that was Rob. I think somebody just joined us.

MS. MUNN: Hello? Did someone just join us?

(no response)

MS. MUNN: The other item that we wanted to look at with respect to this particular issue is -- and maybe no one except myself is concerned about this, but I was very pleased that the full Board accepted our recommendation to deal with 6000 and 6001 through a different work group than this one. But that work group has not yet been appointed, and that being the case, there was some concern in my mind with respect to how we should continue to track these particular items until that work group becomes a reality.

Paul, do you have any thoughts on

that?

DR. ZIEMER: Well, unless my recollection's different than yours, we did that on the last day of the meeting. Maybe Nancy can help me remember, but I think we got the volunteers, and in the absence of a volunteer to serve as chair, I ended up volunteering to serve as chair. So I think we're in place. I think you volunteered.

MS. ADAMS: Yes.

DR. ZIEMER: Thank you.

Maybe --

MR. GRIFFON (by Telephone): Yeah, Mark, I was on that, Paul.

DR. ZIEMER: Yeah, I was thinking you volunteered, so there was at least three of us from this group.

MR. GRIFFON (by Telephone): I thought John Poston also.

DR. ZIEMER: And John Poston and then there was an alternate, and I'm trying to remember who it was, but the other work group has --

MS. ADAMS: Josie.

DR. ZIEMER: Josie, yes. It was Josie. And so we do have the other work group now ready

to go, and it would just be a matter of establishing the first meeting. But I think we're ready to hand off those responsibilities to the other work group for this particular item.

MS. MUNN: Good, so it's just a question of convening the new work group --

DR. ZIEMER: That's right.

MS. MUNN: -- more than anything else.

DR. ZIEMER: There's three of us here if you want to stay over.

MS. MUNN: Well, maybe not this time. But do you have any thoughts about when --

DR. ZIEMER: Well, I think we need to get underway fairly soon. I don't know if we can meet before our August phone meeting. That would be probably pushing it, at least for me with some other responsibilities, but --

MS. MUNN: I guess my real question is should we meet before the September meeting.

DR. ZIEMER: I think if the group, if the others are available, I think we should. One of the reasons for passing this off is there's some level of political pressure to move forward on this particular item. So I don't

think we should delay it. We need to be able to focus on it. We have a lot of information already, and I think we can move forward on it.

MS. MUNN: Do you agree, Mark?

MR. GRIFFON (by Telephone): Yeah, yeah, I think we should meet before California for sure.

MS. MUNN: All right, we'll just anticipate some inquiry about our availability in the immediately foreseeable future.

MS. ADAMS: And Zaida needs to schedule all kind of travel well in advance of the end of the month. In fact, I think it needs to be done by the 5th of August for --

DR. ZIEMER: For August.

MS. ADAMS: For August through the end of September.

MS. MUNN: I have no feel -- are you anticipating a face-to-face meeting, Paul?

DR. ZIEMER: Yes.

MS. MUNN: Here?

DR. ZIEMER: Probably here.

MS. MUNN: Do we want to even think about discussing a potential date at this time or

would you rather postpone that?

DR. ZIEMER: Well, I think I'll have to do it by e-mail because we have some missing people who aren't on this call, namely Poston --

And who was the alternate?

MR. KATZ: Josie.

DR. ZIEMER: So there's two other people we need to be able to touch base with.

MS. MUNN: All right, we'll look forward to hearing from you.

MR. MARSCHKE (by Telephone): Wanda, this is Steve. I just wanted to question about presently we have the 13 Appendix BB issues in the database. Now that there's a separate work group for Appendix BB and the other TBDs, do we want to maintain these in the Procedures database or do we want to remove them or transfer them or make them go away or keep them in there and let the other work group use it to track them or what?

MS. MUNN: My thought would be that we would have to set up, that we would show them in our, in this group's database as transferred, and that we would have to establish a separate

folder, database as it were, for the 6000, 6001 work group. It seems to me that trying to maintain them in the Procedures work group would be confusing. A part of my intent in requesting that a different work group be formed is to get this particular set of issues out of our Procedures tracking.

DR. ZIEMER: Let me add a thought. It would be a database that would look identical to this one, but it would have a different title on it, and every other parameter would look identically the same, Steve. What do you think about that?

MR. MARSCHKE (by Telephone): Well, I think that's a good idea, yes, but obviously NIOSH is now going to be responsible for making that happen with the SQL.

DR. ZIEMER: Well, rather than be the Procedures Review Database, it would be the --

MR. HINNEFELD: Document Review and Tracking. It's called the Document Review and Tracking or Document Comment and Tracking Application. So it'll be part of that, and I think that would be a sort of a sub-grouping of that application that would come up.

DR. ZIEMER: It would work the same it would seem to me.

MR. HINNEFELD: I believe it would, yes.

MS. MUNN: Is that?

MR. MARSCHKE (by Telephone): Yeah, thank you.

OTIB-0070

MS. MUNN: Now, Steve, are you the person who is going to do the status review on OTIB-0070 for us?

MR. MARSCHKE (by Telephone): Well, OTIB-0070, the status is very simple, Wanda. Really it's been assigned to Dr. Anigstein, and he really is just starting up on it, but we anticipate getting a draft report out by the end of August if that's okay with the work group.

MS. MUNN: The end of August.

MR. MARSCHKE (by Telephone): Yes, a draft.

MS. MUNN: So that we would have an opportunity to take a look at it before our next face-to-face meeting. Very good. I'll give it an end of August date, and it will appear on our next agenda with either you or the author expected to give us a run down.

I'm assuming the end of August gives us only less than a week before our meeting so that we may or may not be able to do much with it at our next face-to-face meeting. But in any case if we have it in hand and have an opportunity to look at it, that will be most helpful. Thank you.

Now comes a dilemma for the chair because we are just 15 minutes away from lunch time and everything that I see on our remaining agenda I anticipate to be fairly time consuming unless someone sees something that they know we can cover quickly in a brief period of time. Any thoughts either here or out there in telephone land?

MR. HINNEFELD: I was curious about the open items from the first set of reviews. I believe that's only PROC-0090 that are actually open. Isn't that true, talking about status open?

MS. MUNN: Is that correct, Nancy?

MR. MARSCHKE (by Telephone): I agree, that's correct.

MR. HINNEFELD: Now, there may be some other status codes we need to sort through like in

abeyance and find out the status of those things are in progress. There may be some other status codes, but the things really not closed yet. But if you're talking about strictly open, the items that we marked as open which would indicate there's been no discussion, those, I think all but only ones in the first group of PROC-0090 findings.

MS. MUNN: Well, we'll just, if that's correct, if someone will verify for us that is, in fact, correct --

MR. MARSCHKE (by Telephone): Yes, this is Steve. Yes, I have the same information that there are 29 open items which are the PROC-0090 items --

MS. MUNN: And that's the only thing we have from set one.

MR. MARSCHKE (by Telephone): -- and there's 48 that are in abeyance which indicate that we've come to a meeting of minds. It just hasn't been implemented.

MS. MUNN: Well, hopefully we can get some, at least brief report on those abeyance items as well.

MR. HINNEFELD: Well, I can give it a try.

MS. MUNN: Okay, let's do that after lunch then, and we'll just --

Yes, Paul?

DR. ZIEMER: I have a comment on the first set that has to do with the report to the Secretary. Would this be an appropriate time to make it?

MS. MUNN: This would be an excellent time to make it.

DR. ZIEMER: Over the weekend I sent to Christine Branche the official signed document of our report to the Secretary on the first set review. Appended to that was Steve's SC&A executive summary, I forget, I think it was just called a summary report. So that has gone in. I want to point out though that the copy of the summary -- and Steve is aware of this -- that I sent in, I made the changes on the dates on the pages of the SC&A report so that they corresponded to his cover page.

But, Steve, I'm wondering as far as your deliverables if SC&A may want to actually generate the corrected copy.

MR. MARSCHKE (by Telephone): We can do that.

DR. ZIEMER: I'm just thinking in terms of does a copy of your thing go to David Staudt, for example? Was that a deliverable?

(no response)

DR. ZIEMER: Because what I -- who knows, maybe John Mauro would be able to answer.

MS. MUNN: That's a good question for John.

DR. ZIEMER: John's not on the phone.

But, Steve, do you know if that's a deliverable?

MR. MARSCHKE (by Telephone): I don't think, it has not gone. I don't think it has gone. Let's put it that way. I know the way it was transmitted to you all was via e-mail from me to Paul and Wanda so it did not go through official channels.

MR. ELLIOTT: Be that as it may, whether it's a deliverable or not, for the record if there's any appeal point here, we would need a document that serves as the final version that is corrected.

MR. MARSCHKE (by Telephone): No, I have no problems in sending a --

DR. ZIEMER: If you send it out with a cover letter as your final, you know, I made the

change in the footnotes so that we had a copy for the Secretary that at least looked right. But after I did that I didn't feel quite comfortable with me making the change in SC&A's report, even though it was a change in the date.

MS. MUNN: Just changed the date at the bottom of the page.

DR. ZIEMER: I don't think we ever got from SC&A a report where the cover date and the page date coincided, and I wasn't sure whether you had sent one to David Staudt actually, so that was part of the question. But it seems to me that has to happen. I would point out that it still is considered a draft report and the one that went to the Secretary still has the disclaimer that says it's not yet been approved.

MR. ELLIOTT: That's why I'm saying we need a document that shows it to be a final --

DR. ZIEMER: The reason it's not final is we haven't closed out these items. And the report that went to the Secretary recognized that. It says basically we've closed out at the time of the report approximately half of

the items, and we gave the nature of the kind of findings so it was more like a status report.

So I think it's okay from that perspective, but it's not yet the final report, but it is a version of the report where the dates didn't coincide, and it's the version that we sent to the Secretary. So I think I'd be more comfortable if we had that as official transmission from the contractor.

MS. MUNN: It might be a good idea to do that. If you'd asked John to do that, it would be helpful.

MR. MARSCHKE (by Telephone): We can do that, yes.

MS. MUNN: Thank you.

MR. MARSCHKE (by Telephone): Any problem that when John sends it through the official channels it's going to have a date on it which is going to be after Paul's letter to the Secretary?

DR. ZIEMER: It's not going to have your date on it?

MR. MARSCHKE (by Telephone): Well, the report will have my date on it, the April 8th

date on it. But the transmittal letter will be dated sometime probably this week.

MS. MUNN: I can't see that that's a problem.

DR. ZIEMER: I don't think that it'll be a problem because by the time it is transmitted to the Secretary, well, I don't know.

MS. MUNN: Well, and there's also the fact that the question was asked whether it was a deliverable. I would personally have to go back and check our transcripts to recall for certain the discussion on that. But I don't believe that we ever identified it as a deliverable per se. I think it was offered by SC&A as a reasonable status report that we had never given the Secretary and the Secretary might like to have. But that it was part and parcel of activities with this --

DR. ZIEMER: In a sense though it was tasked by the work group.

MS. MUNN: Yes, it was, and we agreed that it would be a good thing to do. It would be wise to check.

MR. KATZ: Wanda, is it labeled an interim report or a status report?

MS. MUNN: Status report.

MR. KATZ: So it's not really a draft status report. It's a status report.

MS. MUNN: It's a status report.

DR. ZIEMER: Here it is. See, that has April 8th on this.

MR. KATZ: That's working draft written on the top, but the working draft you wouldn't keep, right?

MS. MUNN: All right, I'll take a look at the transcript to see if I can identify any clarifying language of whether or not it was identified as a deliverable.

Any other comments on the status report?

(no response)

MS. MUNN: My thanks to Paul for getting those dates corrected and getting that letter out to the Secretary at long last. And my apologies to all concerned for not getting that done in a more timely manner. We'll try to do better the next time we have a status report.

Any other pressing items we need to look at before we go to lunch?

(no response)

MS. MUNN: If not, we're going to break until one o'clock, and we'll be back on the phone no later than 1:15. Everyone have a nice lunch, we'll see you in a little over an hour.

(Whereupon, a lunch break was taken from 11:55 a.m. until 1:05 p.m.)

MR. KATZ: This is the Advisory Board on Radiation Worker Health Procedures work group, and we're getting started again after lunch. And let me just remind everyone on the phone please keep your phones on mute except when you're participating. And if you need to take a break, please hang up and dial back in instead of putting the call on hold which is disruptive for the call. Thank you very much.

MS. MUNN: May we verify who's on line outside of this room?

MR. GRIFFON (by Telephone): Yeah, Wanda, I'm back on, Mark Griffon.

MS. MUNN: Thank you, Mark.

Mike, are you there?

(no response)

MS. MUNN: No Mike yet.

Other individuals on the line?

Steve, are you there?

MR. MARSCHKE (by Telephone): I'm here, Wanda.

MS. MUNN: Good. Anyone else from SC&A on line?

(no response)

MS. MUNN: Anyone else from OCAS or ORAU?

MR. SHATTO (by Telephone): Yes, this is David Shatto.

MS. MUNN: David, thank you.

We intend to take a look briefly later in the afternoon at all of the open items just to see where we are with them and to try to get a feel from you, Steve, or others in SC&A where we are with the sets beyond one and two. As I indicated, it's our expectation that we'll start with PROC-0090. Since I told Arjun that we'd do that at 1:15, I'd like to wait for just a few minutes before we actually undertake that because I know he's interested in several of those items.

Is everyone who is involved in PROC-0090 up to speed at where we are with those outstanding items? I trust everyone either

has copies of the information that Steve sent out or is on line with the data you need. If you do not have that data, please let us know so we can try to get it to you before we start our discussion.

Before we actually start that, are any of the principals that are with us aware of pressing items in the outstanding material that we have which we need to think of again in terms of priority? We have in the past taken that approach when we have items that are for some reason extremely current or holding up reviews of petitions of one sort or another.

We've had other discussions relative to the fact that if we don't address these in a very programmed manner, we end up with the situation we have in our first set with the material having been in our hands for a couple of years and still having open items which is not desirable I think from anyone's point of view. We don't want to do that if we can keep from it.

But by the same token I hope our exercise this afternoon with respect to PROC-

0090 gives us a feel for whether or not we can, in effect, just start one item at a time and move through these in a manner that will make it possible or be feasible for us to close items out in a more timely fashion.

Does everyone who is concerned with PROC-0090 have the material that they need for us to discuss it?

(no response)

MS. MUNN: If so, we're going to wait for, by my clock, exactly four minutes to see if Arjun will join us. While we're doing that we might be taking a look at our calendar to see, we had a brief discussion earlier about when this group would have its next face-to-face meeting, and there was requests that we not do that early on Tuesday before we, Tuesday, September the 2nd, prior to our other activities.

But it is possible for us to convene this group at the end of the agenda for the full Board meeting which would be the afternoon of Thursday, September 4th. Does that seem to be a reasonable thing to aim for or is that contrary to the needs of some of

the members of the group? Any feedback on that?

MR. KATZ: What time does the Board meeting --

MS. MUNN: We don't have the final agenda. Normally, the Board meeting is finished in early afternoon. So a three-hour meeting of this group would normally be quite feasible. I'm assuming that this means most of the members involved who are on the east coast are not going to be wanting to leave the southern California area at three or four o'clock in the afternoon.

MR. HINNEFELD: You can't really get out so you may as well stay over the next morning anyway.

MS. MUNN: So that being the case, even if the meeting was until four o'clock there, the concept of having an abbreviated face-to-face would not be unreasonable.

MR. HINNEFELD: Not as far as I'm concerned, I mean, from a NIOSH standpoint.

MS. MUNN: If no one has any real grief with that, let's tentatively plan on doing that, working on the assumption that it won't be a

full day's work, but we will --

MS. HOMOKI-TITUS: The drafts I've seen don't have it going through the afternoon. The drafts that I've seen of the agenda don't have it going through the afternoon.

MR. KATZ: Okay, we'll confirm by e-mail.

MS. MUNN: Yes, we will, and we'll establish a time based primarily on what happens with the full Board schedule. But we'll plan on an afternoon meeting there. My guess would be about three hours. If circumstances permit, we may stretch that to four, but I don't think it's going to go any longer than that.

Dr. Makhijani, have you joined us yet?

(no response)

PROC-0090

MS. MUNN: Since Arjun is not with us yet, and we're within three minutes of the time I specified for him that we would be talking about taking up PROC-0090, I think we'll go ahead and begin it.

Steve, are you going to lead this or, Stu, are you going to do it?

MR. HINNEFELD: Well, I can give a little discussion about what's happened since the

last Board meeting and refresh everybody's memory about our last working group meeting.

MS. MUNN: Is there a possibility that we could do this one item at a time? Steve's been good enough to provide us with individual pages for each of the outstanding items, and we had discussed the possibility of doing it this way. Is it too --

MR. HINNEFELD: No, that's kind of what I expected to do.

MS. MUNN: Okay, it's all yours.

MR. HINNEFELD: Well, at the last working group meeting I described that it's sometimes difficult from the statement of the finding that was in originally on the matrix and is now on the database, it was a little difficult to decide what part of the original review report pertained to the statement of finding as it appears in the database.

And a part of that I think was due to the fact that the page numbers that are referenced in the finding description didn't necessarily refer to anything very meaningful in the overall review document. You know, it would refer, sometimes it didn't refer to

anything except the checklist which usually just gives fairly cursory information on the review checklist. And sometimes it referred to pages that seemed to be speaking about something other than what that finding was.

So I commented to that at the last working group meeting, and then in the interim Arjun and I have exchanged a couple e-mails to, where I kind of specified a little bit more the areas of difficulty that we were having, you know, which ones I had particular trouble finding out, you know, trying to really deduce the true meaning of the procedure. And then Arjun responded by pointing out in the review itself, the main review document, what pages really each finding related to. So we did go through the process of sorting out, getting a better understanding of the meaning of the findings.

So having done that then Arjun also responded with a series of responses after my questions about the items, and he gave either a more full description of the finding, a better reference of where to find it in the report, or in some cases he even suggested

that these could be closed. I think that relates mainly to the first four where the finding really spoke to the absence of a procedure for the close out interview at the time this review was done. And that procedure for close out interviews has since been issued and has been reviewed in fact by SC&A. I think it had its own report.

MS. MUNN: Yeah, I think it did.

MR. HINNEFELD: There's a part where it says it has its own report. So Arjun's initial -- I think, now Steve, you can correct me if I mischaracterize this -- but he originally said that he felt like the first four findings, 90-dash-one through four, could probably be closed. Of course, we don't close them unless the work group says to close them, could probably close, or actually, I think what he actually said was these should be transferred to the review of Procedure 92, which is the close out interview procedure because they speak to items of concern related to the close out interview.

So I think that would serve to disposition the first four if the work group

would go along with that. And Steve has provided to us a PDF of the detail sheets from the Procedures database that describes the interactions and the discussion.

MR. MARSCHKE (by Telephone): One note difference, a small difference, Stu, is as I read what Arjun wrote, the first four he says should be closed.

MR. HINNEFELD: Okay.

MR. MARSCHKE (by Telephone): The next one, which I guess is issue number six, that's the one he's talking about transferring to PROC-0092.

MR. HINNEFELD: Okay, thanks, Steve, you're right. You're right.

So if you wanted to read through the statement of the findings in what Steve sent out, it describes the, kind of what was felt to be an information void with respect to what the claimant could expect when they did this CATI interview, the initial interview, and had they had better information or things of that extent, it would, they felt like this would have gone away or they felt like, most of these felt, I guess, addressed the fact that

there really should be some more discussion of the fact that this claimant will have another opportunity to provide input into the process once a dose reconstruction has been drafted, and they've seen what we did with the information we had, they have another opportunity really then to say, hey, you left stuff out, things like this. And so they kind of spoke to that. And so the existence now in a close out interview procedure in Arjun's mind allayed these original four findings.

MS. MUNN: Okay, so the final finding as of this date will be that items one through four are agreed to be closed?

MR. HINNEFELD: I'm certainly agreeable with that.

MS. MUNN: And that item number six is transferred to PROC-0092.

MR. HINNEFELD: Right, that's what Arjun suggested, and I don't have any trouble with any of those.

MS. MUNN: Any problem with that, Steve?

MR. GRIFFON (by Telephone): Well, I just have a question, Wanda. I mean, just to go back to what you've actually told me on

several occasions.

MS. MUNN: You're very faint, Mark.

MR. GRIFFON (by Telephone): I was just going back to a point you've made to me on several occasions that the, you know, I'm pulling up these findings now, but SC&A agrees that these are closed, and NIOSH is in agreement for these first four or whatever. And I think we as a work group are supposed to decide whether the items are opened or closed. Isn't that sort of the way we should deal with this?

MS. MUNN: Yes, that's why I'm asking if everyone's on board with this.

MR. GRIFFON (by Telephone): So I just, before you dismiss them, I thought maybe I'm trying to find the right document so maybe I'm a little behind where you guys are at, but --

MR. HINNEFELD: It's a PDF, Mark, with a title of "PROC-0090 for 7/21 Work Group Meeting," WG meeting.

MS. MUNN: And as a matter of fact if you're --

MR. GRIFFON (by Telephone): Do you know when it was mailed out?

DR. ZIEMER: Just yesterday.

MR. MARSCHKE (by Telephone): I don't think I sent it to Mark.

MR. GRIFFON (by Telephone): I don't see anything.

DR. ZIEMER: I just got mine yesterday.

MS. MUNN: Maybe not.

MR. GIBSON (by Telephone): I don't think I've received it either, Wanda.

MS. MUNN: Okay, hold on just a moment and let me get my e-mail up here. I had thought I had forwarded that to the Board, but perhaps I did not.

DR. ZIEMER: It went out Sunday. It was addressed to Christine and Stu and Arjun and John Mauro --

DR. MAKHIJANI (by Telephone): And Arjun has just joined. Sorry I'm late.

MS. MUNN: Oh, good.

DR. ZIEMER: And I got a copy that incidentally, Steve, are you on the line?

MR. MARSCHKE (by Telephone): Yes, I'm here.

DR. ZIEMER: Change my e-mail, if you would. I think yesterday was the last day you could still use the old one and it forwarded it

automatically. But I'm now comcast.net.

MR. MARSCHKE (by Telephone): Okay.

DR. ZIEMER: But I don't see Mark's name on this list. I have a note from Steve, and I don't see Mike's on it either.

MR. GRIFFON (by Telephone): I don't find anything either, especially from Sunday. I'm looking at the dates shown.

MS. ADAMS: I have the one that Christine sent me. Do you want me to just forward it to Mark and Mike?

DR. ZIEMER: Is that this one?

MS. ADAMS: Yeah.

DR. ZIEMER: Yeah, we can shoot it to you right away, I think.

MR. GRIFFON (by Telephone): Okay, that'd be great.

DR. ZIEMER: And Nancy's going to try to forward it from here. Maybe Steve can.

MS. ADAMS: I sent it.

DR. ZIEMER: Okay, Nancy just sent it.

MS. MUNN: Nancy's already sent it. You're one step ahead of me. I finally got to it.

MR. GRIFFON (by Telephone): So just before we close those off I'd like an opportunity to

at least look them over. I know we've got agreement on the behalf of SC&A and NIOSH on this, but --

MS. MUNN: Arjun, we just had a brief discussion on the first item that Steve had sent to us for our discussion of PROC-0090.

DR. MAKHIJANI (by Telephone): Right.

MS. MUNN: And we had, it was our understanding that you had agreed that items one through four could be closed and that item six would be transferred to PROC-0092. And the other members of the Board had agreed that that was acceptable. Mark's just looking at the material right now to verify --

DR. MAKHIJANI (by Telephone): Thank you, Wanda.

Yeah, I did actually suggest that some items should be closed.

MS. MUNN: Thank you. We'll give Mark a minute to pull that first sheet up.

MR. GRIFFON (by Telephone): I hope you're not holding up for me. I mean, you can continue --

MS. MUNN: No, we just, we want you to be --

MR. GRIFFON (by Telephone): -- okay,

because I don't have anything yet in the e-mail. I'm just keeping an eye so --

MS. MUNN: Okay, very good. We can move on to the next item and then come back to verify after you've had a chance to take a look at it if that's okay with you.

MR. GRIFFON (by Telephone): That's fine.

MS. MUNN: Good, then let's go on to the next item, item number -- that takes care of the next one that we were showing was item number two. We've agreed that one is closed. Item number three is closed. Item number four is closed, and item number six has been transferred, correct? So we're on to --

DR. ZIEMER: We are still looking --

MR. HINNEFELD: We are still looking. We haven't really agreed on that.

MS. MUNN: Yes, yes, I know.

DR. MAKHIJANI (by Telephone): Which list are we, we're not looking at the list that Steve sent around. Which list are we looking at for these one, two, three?

MS. MUNN: Yes, yes, that's the list I'm looking at. I'm looking --

DR. MAKHIJANI (by Telephone): Oh, one

through four, okay.

MS. MUNN: Yes, one through four.

DR. MAKHIJANI (by Telephone): Five.

MS. MUNN: Five I think was not --

MR. HINNEFELD: There didn't seem to be a number five in the database.

DR. MAKHIJANI (by Telephone): No, there's no number five.

MS. MUNN: It was either closed out or agreed at the first meeting that it wasn't an issue. So number six is being transferred to --

DR. MAKHIJANI (by Telephone): Yes, okay, I've caught up with you. Sorry about that.

MS. MUNN: That's quite all right.

And so what we're looking at for the moment is item seven.

MR. HINNEFELD: Item seven speaks to the way coworker interviews are described and/or conducted. For instance, the interviewee claimant is provided a script, you know, of the questions that are going to be asked in advance of the actual interview. And one of the questions in there is are there, can you name some coworkers who could describe your

work history, or more to the point if it's a survivor claimant, coworkers who could describe, who would know about the energy employees work history.

In case of a survivor claimant, the energy employees would be deceased. And the finding speaks to the fact that oftentimes coworkers are not contacted. There's no particular explanation to the claimant as to why coworkers would be contacted or not.

Some claimants probably went to some trouble to try to identify the names of some coworkers and took quite a lot of effort and then with no contact being made to them it felt like this put them through a lot that they needn't go through especially if we weren't going to call. I think these all kind of factor into it.

So, Arjun, if I misspeak in some fashion, you be sure to let me know.

DR. MAKHIJANI (by Telephone): No, the only thing I would add, Stu, to that list -- I don't know if you were done first of all.

MR. HINNEFELD: Well, go ahead. Would it be helpful more, it would probably be better if

you did it than I.

DR. MAKHIJANI (by Telephone): No, no, that's fine. I was happy with your list. I don't have any disagreement with what you said. The only thing that I would add to that that was in the original 2005 report, and a very important, substantive point is that survivors are at a kind of disadvantage naturally relative to employee claimants because very often due to secrecy classification and so on people didn't talk about their work.

They don't know about the employees' work and so on. And so when a coworker is named, it seemed particularly important to talk to them especially in cases that are being denied. So that was kind of the substantive framework of this whole item.

MR. HINNEFELD: And our response on this has been, I think there's some valid points, certainly some valid points here to be made is that we don't want to put a claimant through a lot of effort to try to identify coworkers if there's not a lot of probability that we would contact that coworker. We tend not to do too

many coworker interviews.

The reason for that is that the identification of coworker was intended, you know, the intention was contact a coworker when we have insufficient information about the claim we felt like to allow us to proceed. Now, in practice the way things have turned out, we feel like in most cases we have, we find sufficient information about claims without contacting coworkers in large part because when there’s uncertainty about where specifically a person was located.

We try to make sure that our dose estimate bounds their experience so that a more specific knowledge about the exact location or exact case or even exact description of incidents because we know from our site research at sites where there are incidents and loose radioactive material, my own experience being from Fernald of course, there was plenty of loose radioactive material at Fernald.

And so we try to fashion dose reconstruction approaches that address those kinds of conditions regardless of whether a

specific individual was in this incident or they were in six blowouts or six mag flashes in plant five or they were there for a particular, actually working during the shift when there was a UF-4 spill. Because as a general rule, those conditions are found during research and then applied to dose reconstructions that are done appropriately if need be.

So we do tend not to use coworkers a lot. I think it would be worthwhile for us to refashion some language in some fashion, certainly to speak in the dose reconstruction it would be a relatively straightforward thing to do. The same in dose reconstruction when we describe the information used in the dose reconstruction to just put in a simple statement that coworkers were not contacted because sufficient information was available through other means. Something like that so there would be that level of understanding. So certainly there are some things like that we could make some modification on I think.

MS. MUNN: Paul.

DR. ZIEMER: There’s one comment I hear from

time to time on the terminology, coworker. Frequently, a claimant will be told that their dose reconstruction was done based on coworker data, which is often the case in a general sense. And when they check up and they say, well, I named three coworkers and none of them were contacted so how can this be?

And so I think there's a confusion as to what is meant by coworker in the general sense that we talk about coworker models, which is a whole multitude of people, most of which the worker doesn't know or may not know. And those individuals that they name, which are sort of their working colleagues, and I don't think they always appreciate the difference in that.

And the terminology I think has led to some confusion. I don't know how to distinguish that or if some wording could somehow help them understand the difference between the general coworker model issue and the specific people they may name who may not have been contacted or who may not even be claimants.

MS. MUNN: Well, and we also hear comments

from the claimants themselves who say nobody can know exactly where I was doing exactly what I was doing at exactly what time. And, of course, that's, there's good basis in fact for that. But it is, that confusion is further exacerbated, I think, by the use of the term coworker.

MR. ELLIOTT: We're revising entries on our website, the FAQ's, Frequently Asked Questions, and there's a glossary that will include a description of coworker dataset, a distribution of information, as well as we're going to have to come up with some other terminology perhaps on what it means when we say do you have, in the CATI interview process, do you have other workers that you could identify for us that we should talk to. And we should not call those coworkers in that --

DR. ZIEMER: Yeah, if there were another term that might be helpful.

MR. ELLIOTT: -- and I don't know. Stu is very, it's a rare event when we find ourselves in a best estimate situation where we feel or ORAU dose reconstructors feel that it is

necessary and appropriate to contact those individuals that have been identified in the CATI. It's rare that that is a necessity in order to provide a best estimate. When we do an overestimate or an underestimate of dose, we typically don't go to that extreme of contacting additional individuals.

And one of the reasons why I think is it's not necessary for those types of dose reconstructions, but it's also, when we find ourselves going to somebody else to talk about another person's claim, we start, you're automatically across the line on Privacy Act. I mean, you have to be very careful because you don't want to talk about the person's condition, their health condition, et cetera.

And if you do make that contact, you try to limit it to, well, we understand that you worked close or side-by-side with so-and-so. What can you tell us about the process? What can you tell us about the day-to-day activities? What can you tell us about the exposure to radioactive material they might have experienced? That's the limit that we try to achieve there.

MR. HINNEFELD: Yeah, coworker interviews are pretty complicated because a coworker oftentimes is almost afraid of messing up their coworker's claim. What if I say the wrong thing? Will it go against him? And they're not necessarily easy to contact. If the coworker's not a claimant and the claimant doesn't provide current contact information, they're not always easy to contact.

So there are a lot of complications with doing coworker interviews, but the real main reason that we do it so rarely is that we believe we have confidence in the dose reconstruction research that we do that we can bound the dose appropriately without the additional effort of the interview.

And I know a part of this, and I think this may have occurred in a number of the findings, is the statement that survivor claimants are at a disadvantage in terms of describing the work area. Don't dispute that.

And I just don't know that regardless of what we did in this area, we could really overcome that. I don't know that because of the assumptions we make in making sure we try

to bound the dose, I don't know that we have to overcome that.

DR. MAKHIJANI (by Telephone): Well, a couple -- sorry.

MR. GRIFFON (by Telephone): I was just going to ask two questions to Stu, I guess. One is you said rarely you interview coworkers. Do you have any sense of a number?

MR. HINNEFELD: I'd hate to --

MR. GRIFFON (by Telephone): Because I was wondering if you ever interviewed a coworker for the DR process.

MR. HINNEFELD: There actually have been some interviews. In fact, I recall back in the old days when I used to be a reviewer of dose reconstructions on our site, I insisted on a coworker interview for a particular event that was described. And in that case of the coworkers that were mentioned by the claimant, one didn't remember the claimant. And the other one said, well, I kind of remember him. I guess maybe he worked there, but I don't, this doesn't sound, what he's describing doesn't sound like something I was at.

So the one instance that I know of,

there have been a few others, but I would say there have not been 50 coworker interviews. There probably haven't been 20 coworker interviews.

MR. GRIFFON (by Telephone): And the other question is does it still exist on the modified form? Do you ask that question? Do you ask, if you're never going to use it --

MR. HINNEFELD: Yeah, well, I didn't want to comment about the modified form because I commented at one time that we had modified the CATI form. In fact, we got suggestions for modifying the CATI form. We have never submitted the revisions to OMB so we're still using the original CATI. I got corrected pretty quickly after that meeting.

MR. GRIFFON (by Telephone): Oh, I thought --

MR. HINNEFELD: And that gives us the opportunity to use this discussion, which we were done anyway. I mean, we had taken this discussion from this finding, these PROC-0090 findings, in our original suggested edits, actually ORAU was the one who took these and the original suggested edits.

And so we haven't ignored these findings, and it gives us the opportunity to go back and say, well, are these really the edits that we can capture this. So we still have the opportunity. It doesn't have to be, our approval to use that form doesn't expire until January.

MR. GRIFFON (by Telephone): Go ahead, Arjun. I'm sorry.

DR. MAKHIJANI (by Telephone): No, just a couple of things. You might consider calling them fellow workers or colleagues or --

DR. ZIEMER: Exactly the term I was thinking of, Arjun. I'm sorry you said it too soon.

MR. HINNEFELD: Since you said it, we have to choose something else.

DR. ZIEMER: And another term that distinguishes it from the others would be useful, and then you could point out that we rarely contact fellow workers except in rare occasions or something like that.

Sorry for the interruption.

DR. MAKHIJANI (by Telephone): No, no problem. I think we're thinking along the same lines, and you certainly have the

prerogative. But if you are thinking of modifying the CATI form, and it hasn't been submitted yet, it might be made part of the form so the claimants have it.

You know, you generally have enough information, you know, when you can finish a dose reconstruction you generally have enough information, and you generally don't contact coworkers but sometimes it could be helpful. So that at the end people get this note that you didn't contact the coworker doesn't seem like it's disrespectful. They've already kind of known that you're very unlikely to do it.

Or that if you need a coworker information that you could go back to them and ask them for coworkers. Something like that, I don't know exactly what would be more beneficial in the sense of less frustrating to, because this was a big item of frustration when we actually talked to them.

You know, this partly came from Denise, and now she's part of your outfit. So maybe in modifying the CATI form you might consult with Denise as to how it might be done.

MS. MUNN: We've had many discussions in this group about modifying the CATI form, and I've always had the impression that doing so bordered on an administrative nightmare.

MR. HINNEFELD: And it requires OMB review. The reason it requires OMB review is it's an instrument to gather information from a large number of citizens. I think if it's like more than nine. So if you design an instrument to gather information from a large number of citizens, you have to have OMB approval for that instrument, and that's what we had.

And because it was OMB approved, we knew that it would be relatively difficult to change, meaning we would have to submit a proposed revision to OMB, and they would have to say okay in order to make the revision. We can revise it. It's not that we can't revise it. We just knew it would be difficult.

Now we're at the point where now the OMB approval has a sunset date, a certain time span. It expires in January, so we have to reapply if we continue to do interviews. So at this time this is a convenient time to gather these revisions and submit it and have

them approve the use of a new form in this context.

MS. MUNN: So our wrap up of PROC-0090 would be particularly timeful (sic) right now.

MR. HINNEFELD: Yes. At least these findings.

MR. ELLIOTT: Yeah, because we can use these review findings to justify, to argue to OMB the necessity of making these changes. If we went forward with our own thoughts and designs about what a new instrument should look like, then we have, you're going to start from whole cloth arguments with OMB. But here we have something that's been evaluated by this body, and we can take that set of review comments and, I hope, be successful in getting a new instrument approved.

MS. MUNN: How involved was the original approval process with OMB? Of course, we were all just first out of the chute then.

MR. ELLIOTT: Well, you guys didn't even know about it. I mean, it's not something you're involved in.

MS. MUNN: I know. I meant you --

MR. ELLIOTT: -- very involved. In this

instance they don't --

MR. KATZ: Actually, I think I did that work, and it wasn't particularly interactive in this case. OMB didn't come back with a lot of issues in this case. They did come back and consult on several issues, but there wasn't, and there wasn't a lot of public input.

But this is really perfect because one of the things OMB wants to know, too, is that experts review the instrument or stakeholders have had a chance to sort of make certain that the instrument is appropriate. And in this case we have really the perfect situation because we have an expert review of just the issue that they would want so it's actually great.

MR. GRIFFON (by Telephone): I should point out, Ted, that this review wasn't a review of the questionnaire. We've only looked at these procedures, right?

Arjun, am I correct in, SC&A never reviewed the questionnaire itself, the content of the questionnaire.

DR. MAKHIJANI (by Telephone): We did review

the CATI form and had a number of comments on it.

MR. HINNEFELD: There's a section in the report that --

DR. MAKHIJANI (by Telephone): And they are in the report in terms of what was, you know, what might be beneficial to be in there. But at that time -- now we haven't revisited it in all of our experience in the discussions of DR that we've had. But there are a number of recommendations in there.

MR. GRIFFON (by Telephone): I do recall that now, but I'm looking at, these are all CATI process not --

MS. MUNN: Correct. And either the Board or this group, I think the Board as a whole, we went over the CATI, and this has been a tremendous amount of attention.

MR. HINNEFELD: There's at least one of these findings that says a very good number of recommendations on the CATI form on how the CATI form can be improved. And that is captured as at least one of the findings.

MR. GRIFFON (by Telephone): Yeah, okay, all right. And I know as a Board we went over it

many times, but we were discouraged from going anywhere with it. So anyway, okay.

MS. MUNN: Now, where were we? We were on number seven.

DR. MAKHIJANI (by Telephone): Just a second. Just for clarity on that point, is there a suggestion that some of those things might be incorporated so they might be discussed or not relevant at the present time? I didn't understand.

MR. HINNEFELD: Well, I don't have a discussion with me today, but we can provide that. I mean, when the original comment suggested revisions were made that ORAU put together, this was some time ago that we have not submitted to OMB, they did, in fact, use this report, and they did look at this report as -- now they didn't necessarily adopt all the recommendations of this report. But they did look at this report and made suggested revisions based on the content of the report.

MS. MUNN: So, Arjun, is the question you were asking whether there is going to be an actual list of suggested revisions forthcoming? Is that your question?

DR. MAKHIJANI (by Telephone): Yeah. I mean, obviously there have been revisions, and I was just wondering whether the working group is going to look at those revisions in light of the suggestion that had been made in our earlier review or we're going to leave it at that. I just wanted some clarity.

MS. MUNN: Yeah, actually, I thought --

DR. MAKHIJANI (by Telephone): -- in terms of our work review.

MS. MUNN: -- I thought that we had understood that there had been no revisions made. There are no revisions that have been made to the CATI.

DR. MAKHIJANI (by Telephone): Yeah, but they are being made, and I was wondering before it's submitted to OMB whether we're leaving it as is and saying ORAU/NIOSH have reviewed the work that was done and it's okay, or that the working group is going to consider it or whether you want us to look at it. I just wanted some clarity on the revisions that are being made.

MS. MUNN: Oh, well, it was my assumption that one of our purposes in going through this

PROC-0090 exercise at this time is to identify any outstanding potential suggestions for revision, and that following our review, NIOSH would identify from their records and from their understanding what those suggested changes would be, and that we would all have an opportunity to look at those before they, their formal contact with OMB. Is that not a reasonable way to proceed?

DR. MAKHIJANI (by Telephone): Yeah, I think, but, you know, this particular item has not been on the table until this moment, at least I wasn't aware that it was on the table. And it would be useful for it to be. I think it would be very useful, but we have not talked about this as an outstanding item before because of the problem of the origin of the form.

MS. MUNN: Oh, what do you mean we haven't talked about this?

DR. MAKHIJANI (by Telephone): This being substantive revisions of the questionnaire other than, you know, we've talked about the fellow workers question, but we have not talked about -- I'm struggling to find our

January report on my computer here. I don't have it.

MS. MUNN: Yeah, well, I think we've talked about it often, but as I said have come to the conclusion that there was a great deal more effort involved than would be achieved by the, the success would be achieved by the changes at that time. But we're now talking about a cumulative set of well-discussed, thoroughly-reviewed items which have been accumulated and will, in my view, be brought to us in a succinct form, much easier for us to review than these multiple pages from the procedure.

DR. MAKHIJANI (by Telephone): Okay, yes, I think that sounds fine to me.

MS. MUNN: Is that reasonable?

DR. MAKHIJANI (by Telephone): Yes, it does sound fine to me.

MR. ELLIOTT: I don't know what's being asked here. I mean, we certainly have --

DR. ZIEMER: Is this item seven?

MS. MUNN: No, we're talking about the entire issue, of the overall issue, of change to the CATI form. And we know that NIOSH has received comments from various sources, and

we're making more as we go through this PROC-0090 process. I was hopeful that when we finish PROC-0090, we would have some very specific items that would be suggested.

But certainly it's not clear in my mind how extensive those are, whether or not they're generally required or would be helpful. After we had finished PROC-0090, this work group can do one of two things. They can either step out of the entire issue, or we can continue to follow up and see what NIOSH's suggestion of proposed changes might be.

Larry, am I way off base here?

MR. ELLIOTT: I don't believe you're off base at all. I think that is what I understand our process to have been on many other procedures and other items where we have received, as you have received, a review and comments about a given procedure or methodology. And I'm okay with that. I guess where I was confused I wasn't sure if you were asking, or Arjun was asking to be -- or I think I heard Mark ask this at the Board meeting -- an opportunity to review the OMB

submittal.

That causes me some concern. I don't know that we're interested or able to insert a Board review of the submittal. I think we're confident in understanding what the issues are that have been raised in the review, and we have developed or are developing our position on those and moving that OMB form submittal, advancing it in a separate track from what is going on in this Board process.

Let me turn that around. If we inserted a Board review on the OMB submittal, I'm not sure that we'll be enabled to make the timeframe that we need to make.

DR. ZIEMER: Well, if I could, I think there's a separate issue here, too, and that is, what's the Board's role in that kind of a process. I don't think we have a role in your submittal, per se. However, once it's submitted, then there's a document being used as a procedure which we can turn around and review and say is this now addressed adequately the issues that were raised in the previous round. Because it would be subject to a review just as this had, and we would

have to gain some experience with it, get feedback and so on.

MS. MUNN: Yes, Ted.

MR. KATZ: Let me just say --

DR. ZIEMER: Be like a new procedure where you commit to revising something where we say, okay, that's the outcome. We're fine with that. Once it's revised we'll have a chance to look at it again under a new light.

MR. KATZ: -- so let me explain --

MR. GRIFFON (by Telephone): I'm sorry. Can I ask one thing just to clarify what I was saying before? And, Larry, I agree, years back I had asked for that, requested that we could review the form that you were submitting. And I understand the problems with that. I guess what I was looking for now is clarification that we, as a work group, discussed the findings or the findings we're discussing right now were all process related in the CATI process.

They're not content related, and Arjun's report, I believe the original SC&A report, does have some information on content. To the extent that would be useful to flesh

out and have agreement within our work group or within the full Board to give to NIOSH prior to their submittal of a new version. I think that's where I thought we could have input.

These things we've discussed so far, maybe the coworker item is one thing that's on the form. But there were definitely some specific comments that we made about the content of the form itself, and we've, I don't think we brought those forward in this final set of findings.

Is that wrong, Arjun, or --

DR. MAKHIJANI (by Telephone): Yeah, I believe that that's correct, Mark. I have the report in front of me. I cannot find -- I can give you examples. For instance, one of the comments was there's no question about food. Workers often ate in contaminated places. There's no question about overtime or bringing home contaminated clothing or vehicles. So there are a number of specific suggestions like that or --

MR. GRIFFON (by Telephone): We didn't really discuss those in the work group so if

we may or may not decide that some of them are relevant to pass on to NIOSH and some we believe are, whatever. I think we --

DR. ZIEMER: Are those in a finding that we have already dealt with or --

MR. HINNEFELD: They're in the report.

DR. ZIEMER: In the body but they don't show up as a finding.

MR. HINNEFELD: One of the findings that's enumerated on the database. So there are several suggestions made with respect to the CATI form. And it refers you back to the discussion in the report. So it essentially is, you know, the recommendations are essentially captured in one of the findings.

DR. MAKHIJANI (by Telephone): Mark, from the time you chaired the group, I don't recall that we, you know, we discussed the report, and we did discuss many of these things, but I don't recall that we went over changing of the form because it was kind of academic at the time.

MR. GRIFFON (by Telephone): At the time, yeah, yeah. So now it might be more relevant and we should maybe look at those again and

see if we want to pass those on as recommendations from the work group to NIOSH.

DR. MAKHIJANI (by Telephone): They're on page 205 of our January 17th, 2005, report in case anybody wants to refer to it.

MR. GRIFFON (by Telephone): Give that reference again, Arjun?

DR. MAKHIJANI (by Telephone): They're on page 205 of the January 17th, 2005, report, Section 5.5.1, which actually starts on the prior page, page 204. It's called "Gaps in the CATI Forms".

MR. KATZ: So, Mark, let me just -- this is Ted -- talk about process issues as I recall them related to doing these OMB pieces information requests. We can certainly incorporate expert opinion up front, but the issue as Larry pointed out is a timing one. And if we have to have a renewal in January, I think Stu might have said?

MR. HINNEFELD: Yes.

MR. KATZ: There's a public comment process that's part of it that makes it fairly lengthy. And in this case it's either one or two comment periods, each of which I believe

are 60 days. So it may work out that you can get this work if you have to have more deliberation done before it's submitted to OMB. But if not, then there's that public comment period as I think Dr. Ziemer was indicating.

So one way or the other you can certainly work it in. But if we haven't submitted it yet, and we have a lot of the information, the recommendations that have already been developed, certainly we can address those before we submit it because it shouldn't take that long.

MR. ELLIOTT: And we will.

MR. KATZ: Right.

DR. ZIEMER: But, Mark, you're saying that although SC&A suggested some things, the work group hasn't really reviewed them per se. We haven't looked at those for adequacy, appropriateness and --

MR. GRIFFON (by Telephone): Well, and I think Arjun's maybe correct. We tabled them at the time because there was no sense on discussing something that we couldn't effect.

DR. ZIEMER: Yeah, I understand. In other

words we agree there were gaps, but we didn't spend any time on trying to delineate them.

MR. GRIFFON (by Telephone): I'm not even sure we got to the point of agreeing there were gaps. To be fair I'm not sure everyone on the work group was in agreement with all those items.

DR. MAKHIJANI (by Telephone): That's correct. We did not have an item by item --

MR. GRIFFON (by Telephone): Right, I don't think --

DR. MAKHIJANI (by Telephone): -- to my recollection.

MR. GRIFFON (by Telephone): No, I don't think so. So I think it would be useful just to --

MS. MUNN: Well, we talked about it an awful lot. I'm surprised we didn't have an item-by-item because we did talk about it a lot. My question, Ted, with respect to the public hearings, the comment period, those are following the submittal to --

MR. KATZ: Absolutely.

MS. MUNN: -- OMB, correct?

MR. KATZ: It's published in the Federal

Register, and then there's a 60-day public comment period.

MS. MUNN: For the OMB document that you would be submitting.

MR. ELLIOTT: A tentative timeline -- I was just looking in my e-mail here for one day someone sent to Stu, and I thought he put a timeline in but he didn't. But I believe the timeline we have discussed is that in September, no later than mid-September, we have got to get this OMB package up into being processed for hopes that it'll be renewed and approved by January. If not, then they give us an extension, but we don't like to carry extensions for very long.

MS. MUNN: Well, it sounds to me as though that certainly is a legitimate sounding timeline. From this group's perspective this means that this becomes a major item on our September meeting, one that we should be prepared to bring as close to closure as possible since we're going to have to fish or cut bait on that one.

DR. MAKHIJANI (by Telephone): Well, Ms. Munn, it might be more expedient in terms of

what Larry and others have been saying in terms of NIOSH time constraints. If NIOSH simply considered these items and got back to the working group about what they found useful in them, and we went from there, it might cut short the amount of time that we need to discuss it.

MS. MUNN: Yeah, I sort of thought that was what I was suggesting when I first brought this up.

MR. ELLIOTT: Well, certainly during the public comment periods if you haven't had a chance before then to develop your position, that will give you another opportunity to speak about the Board's position on these particular issues.

MS. MUNN: Well, let's get through the case at hand, which is PROC-0090, and urge the Board members to please re-review or re-read the SC&A report so that you have in your individual minds any revisions that you feel are crucial. I would urge all of us not to dwell on minutia and to remember that we want to eliminate, not to complicate --

MR. GIBSON (by Telephone): Hey, Wanda, this

is Mike. Just for the record this item may not be exclusively for the Procedures group because I'm sure this will come to head in the Worker Outreach work group, too.

DR. ZIEMER: Worker Outreach group might want to --

MS. MUNN: Yes.

MR. GIBSON (by Telephone): Okay.

MS. MUNN: Would you like us to assume that we will copy you? As a member of the Worker Outreach group we can certainly make sure that that is on your slate, right?

MR. GIBSON (by Telephone): Yes, you know, I'm just sure that this item's going to come up somewhere in that work group so I just wanted to get that out there --

DR. ZIEMER: I think that's appropriate, Mike. You may want to have the group actually review the CATI form and see if you have some independent comments.

MR. GIBSON (by Telephone): Right, that's what I anticipated.

MS. MUNN: All right, very good. We were on item seven, and I have no clear memory of where we were on item seven. Can anybody help

me out?

DR. ZIEMER: Well, the terminology on coworker was one of the issues, right? Are we going to look at that and see whether there's some -- I think Larry's suggesting that in the -- let's see, your definition list, you're going to have a list of --

MR. ELLIOTT: A glossary, we have. We have various ways.

DR. ZIEMER: -- where you might clarify the usage of the term coworker and --

MR. ELLIOTT: We need to do something similar for partial dose reconstructions. We're receiving a lot of questions about what does a partial dose reconstruction really mean.

MS. MUNN: Why didn't you do the whole thing?

MR. ELLIOTT: Yeah, why didn't you do the whole thing. So we're looking at, Chris Ellison is looking at those kind of things on our website and trying to figure out how many different ways that we can say what needs to be said and place it in different places on the web page.

DR. ZIEMER: And maybe the fellow worker or some other term.

MR. ELLIOTT: I like fellow worker. I think that may be something we can utilize here.

MS. MUNN: So our action on this is going to be what?

MR. HINNEFELD: Well, the change in terminology between coworker and fellow worker. And also, I think, a little more clarity to the claimant about the fact that we aren't necessarily going to hunt down fellow workers, that they would be contacted on occasion or rare occasions. We rarely contact fellow workers because as a general rule we can obtain sufficient information for the dose reconstruction without. Some words along the line that sort of resets the expectation in the mind of the claimant about what this process is, what this fellow worker process is.

MS. MUNN: So for this particular finding, is our next entry going to be that NIOSH will suggest additional wording or a revision of wording as a potential change for the CATI? We can't say change for it at this point, as a

potential change?

MR. HINNEFELD: Yeah, it may be the CATI or it may be other part of the acknowledgement packet that's, you know, it may be in a variety of places, ways to communicate --

MS. MUNN: Interaction with claimants, yeah.

Finding eight.

MR. MARSCHKE (by Telephone): Number seven now is changed to in abeyance?

MS. MUNN: Yes.

MR. MARSCHKE (by Telephone): Thank you.

MS. MUNN: That's my understanding.

Anyone else?

(no response)

MS. MUNN: In abeyance. Number eight.

MR. HINNEFELD: Number eight, I'll start unless Arjun wants to talk about it.

DR. MAKHIJANI (by Telephone): No, no, please go ahead.

MR. HINNEFELD: The finding statement is procedure lacks sufficient information to assist the recipient in interpreting the questions, especially family member claimants. And this speaks to actually the preparation of the interviewer if I'm not mistaken.

This kind of started us off on the wrong path. And our response originally, well, we don't try to prepare the claimants for this interview. We give them the script and things like that, but we don't try to pony them up for the interview. But I think the intent of the finding was really the preparation of the interviewers.

Is that right, Arjun?

DR. MAKHIJANI (by Telephone): Yeah.

MR. HINNEFELD: And this more specific statement, I guess this may be the original statement of finding. Interviewers are not required to have an incident list or a job category list or familiarity with the specific facility that the survivor worked at in particular.

In other words they don't have to read the site description section of the site profile, and so they don't have this body of information in front of them that would make it easier for them to understand what the claimant is telling them. This to me is a difficult area to get into because at what point have you instructed them enough, an

interviewer enough.

You know, the interviewers have to do, even today, 200 new claims a month are coming from the Department of Labor. And, of course, we have worked through a large backlog of claims, so there are a lot of interviews to do. And I think there might be a sort of a, you know, maybe the ORAU people can kick me under the table or just tell me I'm wrong.

I think there's probably an attempt for someone who's, if they're familiar with a particular site, to try to do those interviews with that site rather than try to make them knowledgeable about everything. But because of work balance concerns you just can't rely on saying, okay, Joe's going to do all the Hanford interviews or Joe and Tom are going to do all the Hanford interviews.

So you're in the position then of trying to make your interviewers knowledgeable about some level of detail of some 200 sites that we have claims from. So first of all, you're starting out with something you can't really accomplish in particular detail. When you get into things like lists of incidents,

that to me is always, what is an incident is always sort of an ill-defined task.

If you make a list of incidents that occurred at such-and-such facility and without specifying a threshold and what kind of incident you're talking about, you're kind of on a hopeless journey here because an incident to a worker is something that affected him out of the ordinary in his particular work day whether there was a particular consequence to it from dosimetry, or there may have been something that happened that was of consequence to dosimetry that he wasn't in a position to observe that he was just affected by.

So to us it's a little difficult to come up with an incident list. And we don't even, actually, we don't even try to develop comprehensive list of incidents in our site profile. So when you get into this kind of situation is, of trying to prepare the interviewers more thoroughly, make them more knowledgeable so that they can better understand the, what the claimant says, you really run into a, you can't make them

completely knowledgeable that they will absolutely understand what the claimant says no matter what.

And so you get a kind of a balancing of costs, diminishing returns in trying to balance how much effort can you spend on training your interviewers versus how much benefit do you get out by making them that much smarter about the specific sites. So to me it's really hard to address this. It's really hard to say we can make the interviewers good enough that they'll understand what these guys are talking about, and they'll never misunderstand a term.

And the example that keeps popping into my head, and this goes way back to my early days in the program when, I think it was at a public comment session, a claimant complained about the interviewers not really knowing very much because he had used the word cold trap, and it had been transcribed as coal trap, C-O-A-L trap. Now, if we were to describe the activities at a gaseous diffusion plant or ^ 64 facility -- and that's my familiarity --

MS. MUNN: Or an FFTF.

MR. HINNEFELD: -- and you've talked about what they did, what does this facility do, you're getting pretty, fairly detailed by the time you start talking about the cold traps and all that. So it's not likely that had this person been particularly familiar with even the facility, if they had studied the facility and known what they did, the term cold trap may not have been part of that. I mean, that's going pretty far.

Now, that's probably an extreme example, and I'm sure Arjun will point out that that's an extreme example. But this is one where, look, we're interested in helping the claimants as we can. And the interviewers are interested in helping the claimants as they can. We try to provide them the information that will assist them in doing that, but we can't take on a task that's essentially undoable just to try to do an undoable task a little better.

And so we aren't really proposing to change too much other than what we would do as just process improvements because we want to

do a good interview and we want the interview to be a good circumstance for the claimant.

MR. ELLIOTT: Given all of that, ORAU still trains the interviewers --

MR. HINNEFELD: There is training material for the interviewers.

MR. ELLIOTT: -- on various sites, and when a new site profile or technical basis document or technical information bulletin comes on line and is implemented, that's one of the training --

MR. HINNEFELD: I don't know.

MR. ELLIOTT: Is it? I thought that's what I understood.

MR. SIEBERT: David, are you still on the line?

(no response)

MR. HINNEFELD: David Shatto?

MR. SIEBERT: That would be the person who would, I think might be able to answer that because I don't know.

MS. MUNN: Certainly, Stu, what you have to say is well received with respect to the minefield that we get into with semantics. And I can think of really no better one than

the incident incidence because it's certainly not just the workers themselves, the general public misunderstands what's meant by an incident report, what an incident is. I have a good long story that I'll tell anyone who's happy to listen after we're off transcript here about how shocked PBS film crew was.

MR. SHATTO (by Telephone): I'm sorry, Stu, I was trying to hit mute and I disconnected myself.

MR. HINNEFELD: Did you hear Larry's question about the training for the interviewers when new documents come out?

MR. SHATTO (by Telephone): Yes, I did, about is there specific training on a facility as it comes on line. Is that the question?

MR. HINNEFELD: That was the question, right.

MR. SHATTO (by Telephone): No, there's not specific training for the interviewers as that comes on line.

MR. HINNEFELD: Well, when a technical document comes out, the training usually is to the dose reconstructors about how to implement that, that technical document. So, but now

there is a training package for the interviews, right?

MR. SHATTO (by Telephone): Yes, there is. It's a basic training on the facilities in general and where to go get information as it's needed.

MR. ELLIOTT: And then the other thing I would point out is that after the interview is conducted and a report is drafted, the people who were interviewed get an opportunity to comment on that and edit it. And maybe they don't raise questions like perhaps everyone thinks they should about, well, you don't have anything in here on the incidents or you don't have anything here about the accident that I had. But there is that one more time for an interviewee to provide input.

MR. HINNEFELD: Yeah, and maybe David can provide at little, maybe he has a sort of anecdotal impression about how frequently we get proposed revisions from claimants when they see the first CATI report that we put out.

MR. SHATTO (by Telephone): For like updates?

MR. HINNEFELD: Right. When we do a CATI, we write down what we think we heard, and we send it to the claimant, do we get, do you have any kind of feeling for --

MR. ELLIOTT: Are there a lot of changes?

MR. HINNEFELD: -- do they hesitate to speak up or do they speak up freely?

MR. SHATTO (by Telephone): They do make several changes. I mean, some interviews may go through two or three different revisions. It depends on the interviewee, the claimant, if they have a lot of specific knowledge that they're wanting a lot of detail, then, yes, they will have several revisions depending on what they're trying to get across. And it does change. Sometimes they'll change their mind on where they wanted their focus.

MS. MUNN: Can you hear all right? It's very faint here.

MR. HINNEFELD: Based on the process that we have, and like I said how far do we go to try, how far do we go down this task if we can't do completely. You know, we haven't really proposed any particular changes in this avenue other than the fact that we do, as just normal

process improvement, track that kind of activities in all our work. If we can find ways to improve what we're doing, we implement those.

MS. MUNN: So?

DR. MAKHIJANI (by Telephone): If I might just comment on what Stu said. I don't think the intent of the comment -- now, it was a long time ago, so I don't remember exactly what I was thinking then or what Kathy and I were thinking then, but knowing what I know now and the experience we've had, the intent of the comment isn't that an interviewer should be a health physicist in the CATI interviewer or an expert on a particular site.

But knowledgeable and familiar with the site profile is sort of a different thing. Or to have the claimant's claim in front of them so it would be at least cursorily familiar with the claim, none of which is required now. You've got so many sites, and I understand that many sites don't even have a site profile.

So I would agree that there are interviewers to whom particular sites like

you've got a lot of claims from Hanford and there are two or three interviewers who basically handle those interviews. It might be worth the time for them to actually go through the site profile, and also I don't know how you want to decide whether they should have the claim in front of them or not.

So it might smooth the process down the way if the interviewer had that. You know, you all are doing the work, and it's hard to second guess details down into the weeds like that.

MS. MUNN: Well, and it's hard for me, individually, to try to identify why exactly the interviewer should be in a position of needing to provide more information to the claimant than the claimant has access to already. That's difficult to decide. You certainly don't want to lead claimants one way or the other. Either they have information or they do not have information.

So where do you come down on, what would you suggest sufficient information would be in interpreting the questions? The questions have more to do with the work that

an individual did. I guess I'm asking something from SC&A which was inferred in the original finding that doesn't seem to have an answer.

DR. MAKHIJANI (by Telephone): Well, I don't know that it doesn't have an answer, Ms. Munn. We made at least an inferential recommendation that the interviewer should be more familiar with the site profile and should have the claim in front of them. Now, if that's not practical beyond what is being done, I mean, that's a call that the working group has to make in terms of what you tell NIOSH and, of course, that NIOSH makes in terms of how they actually go about things.

MR. HINNEFELD: Now, Arjun, when you say talk about having the claim in front of them, are you talking about the claimants' exposure history?

DR. MAKHIJANI (by Telephone): Yeah, you know, say, even if it's an employee, you leave aside the problems with survivor claimants, I think often people don't remember things, and or may say something that's wrong, in which case you might have a CATI record that's

contradictory to the paper record.

Now, I don't know whether this kind of thing would cause the interviewer to depart from the script. I mean, there are a number of things that are implicit in the way, in the recommendation in the way the interview is conducted. So from a practical point of view it's hard to tell. But the survivors often say don't know, don't know, don't know.

You have raised the objection that you don't want interviewers to be prompting interviewees, and I would agree with that. You don't want interviewers to be prompting interviewees. So there's a kind of a fine line, and I don't have a very good judgment about where that fine line is.

So in a way I think there's a concept that's before you and how you implement that concept or what the working group thinks about it is kind of what I would defer to how you think the interviewee might best be helped to produce or remember the best quality information that would help the dose reconstructor.

MS. MUNN: We can probably go further than

saying there's a fine line. I think there's a bright line if you really and truly get down and think about it. And that bright line has to be that the interviewer does not contribute anything to this process in terms of information.

If the interviewer is there for the purpose of providing information, then this, by definition, causes a bias in the response of the individual being interviewed. I think most any individual who's done interviewing, I think most psychologists in that field would take that position. But your questioner must be neutral, otherwise you are biasing the information one way or the other.

DR. MAKHIJANI (by Telephone): But neutral is a little different than not knowledgeable. Interviewers, well, you know, this is kind of a discussion on an abstract level, but the point at issue was not whether the interviewer should be neutral or not, and that's, of course, I would agree. The point at issue is whether the interviewer should be knowledgeable.

MS. MUNN: One would maintain that the dose

reconstructor needs to be knowledgeable. The interviewer, however, is accepting information, being open to all information, presenting a question hopefully in a neutral way. So what we're pushing for here is closure on this particular finding.

DR. MAKHIJANI (by Telephone): And as I've said, I think that the spirit of the finding, and I personally am willing to say that I think NIOSH has looked at this finding and can see how best it might implement it. And mostly as I hear Stu's responses that you're doing what can be done to make the interview outcome as complete and accurate as possible and that nothing more needs to be done.

Is that sort of a summary of what you said, Stu?

MR. HINNEFELD: That's a very good characterization of what I said.

DR. MAKHIJANI (by Telephone): So at that stage I guess it's just for the working group to decide whether this issue is closed or whether we need to debate it more.

MS. MUNN: Is the sense of the discussion which has just ensued can be captured in our

closing comment on the status sheet, is there any objection to calling this closed?

(no response)

MS. MUNN: We can always leave it in abeyance until we see the words. What is your choice?

DR. MAKHIJANI (by Telephone): Well, is NIOSH going to revise some of the words in the procedures for interviewers or how is --

MR. HINNEFELD: Yeah, see, there's a revision of PROC-0090 that will be done.

DR. MAKHIJANI (by Telephone): So I would suggest that we can just leave it in abeyance until that time, but I don't see that there's further discussion from my point of view. I listened to Stu, and I think they've considered this.

DR. ZIEMER: It's not clear to me how the -- are you talking about the new CATI form?

MR. HINNEFELD: Yeah, I think there'll be some changes in procedures as well, PROC-0090 procedures.

DR. ZIEMER: But even in the procedures it's hard for me to see how you specifically address this. In other words you'll have

interviewers who are trained in a way so that they know technical terms and that sort of thing.

MR. HINNEFELD: To the extent we can, yeah.

DR. ZIEMER: To the extent you can, so if somebody's talking about a Roentgen they sort of know that terminology. I tend to agree, I think, with what Wanda's saying that even if they give misinformation like if someone from Idaho said I was in the SL-2 accident, I don't want the interviewer to say, no, you mean the SL-1 accident. I would like him to put down what the claimant thinks that they were involved in.

And the claimant may have it wrong, but it doesn't seem to me that we want the interviewer interposing themselves because maybe the claimant is right because they were at the site. Or we don't want the interviewer saying, no, well, that didn't happen at your site so that's not good information. Whatever they have, so not to interpose themselves. So I'm just concerned that we don't push this to the point where the interviewers are controlling the input from the clients.

MR. MARSCHKE (by Telephone): This is Steve Marschke. Stu said something earlier in the discussion about that an attempt is made to use an interviewer who's more familiar with the site. And I think if words to that effect were in PROC-0090, not necessarily saying he must be familiar with the site, but we do acknowledge that we do at least make an attempt to use knowledgeable, you know, people who are knowledgeable of the site and use, again like you mentioned for Hanford, use the same interviewers for all the Hanford claimants or the same group of interviewers for all the Hanford claimants and so on and so forth, that might help. I don't know.

DR. ZIEMER: So that if they said I worked in the canyons at Savannah River, the interviewer sort of knows what they're talking about.

MR. MARSCHKE (by Telephone): Exactly.

DR. ZIEMER: I don't have any trouble with that idea.

MR. HINNEFELD: I hate to speak knowledgeably here because this affects the work of ORAU, not the work of me, and I want

to see before we commit to that -- we may well do that, but we want to --

DR. ZIEMER: To the extent possible.

MR. HINNEFELD: -- given the work planning constraints and getting what has to be done, done. And to the extent that it is merely a suggestion that we will attempt to do this, and so as need be they can do work planning and have the people do what has to be done. I don't see any particular problem in that. But I really hate to speak very definitively about this.

And I know Dave is not really a task team leader for this task. He's sitting in for his boss, and he may be a little concerned about speaking up as well. But I think that kind of thing if we can say it truthfully, and it's sort of a guidance or suggestions rather than a hard and fast rule that would interfere with our work plan, then I personally don't see a particular problem with that.

MR. SHATTO (by Telephone): This is David. I was going to jump in just a second. I think that would affect, it could affect some of the work planning given our, I mean, some of these

sites, I mean, there's 200 -- like you said earlier -- there's 200- and-some facilities out there. Some of these I think Wanda actually stated earlier, we don't want to discredit anything that the claimant's saying. I would hate for the interviewers to think that they are to say something didn't happen at a site. That's my input.

MR. ELLIOTT: This is Larry Elliott. I think it would be different if we were having this conversation at the front end of this program where we have a large number, had a large number of claims per certain sites, and you could tailor your interview staff to be knowledgeable about a given site. But we're not there now.

We're at a juncture now where the 200 claims that we're seeing come from DOL in a given month, maybe 20 of them are Hanford, if that, maybe another 20 are Savannah River, and then the rest are all over the place. And so I think we're not searching now for interviewers that have established knowledge about a given site as much as knowledge about how to do the interview and do it effectively.

So I don't know. We'll take it under advisement, and we'll consider it, but as I know Stu has jotted this down, he'll go back to ORAU, and we'll talk about it.

MS. MUNN: Good. I'm just searching for a set of words that are comprehensive enough to make everybody happy that we can close this out. So we'll await the words. Okay?

(no response)

MS. MUNN: Anything else on item eight? I hope not.

(no response)

MS. MUNN: Can we move on to item nine?

MR. HINNEFELD: The statement of item nine's finding is the interviewer is not required to have knowledge of the facility although some may have it. Now, to me this sounds like the one we just talked about. It sounds like number nine. I mean, the preparation of the interviewer not to be knowledgeable, so I think it's the same one.

MS. MUNN: It appears to be an extension of the same thing, just further delineation of --

MR. HINNEFELD: My suggestion would be this could be addressed in finding number nine. It

could be changed to that unless there's some aspect of this that I didn't pick up on.

MS. MUNN: Or eight.

MR. HINNEFELD: This is nine?

MS. MUNN: This is nine we're looking at now.

MS. ADAMS: You jumped to ten, Stu.

MR. HINNEFELD: I jumped to ten?

MS. ADAMS: Yeah.

MR. HINNEFELD: Well, I think it sounds a lot like nine.

MS. MUNN: Yes, it actually appears that eight and nine are a parsing of the same issue. So let us agree to close one or the other and cover it --

DR. ZIEMER: The same way.

MR. HINNEFELD: Yeah, I guess you're right. I consider eight, nine and ten to be largely the same. It has to do with how well prepared is the interviewer, how knowledgeable is the interviewer of the site in order to do the interview and it seems like to be the same, I think maybe eight contains the additional context of how familiar is the interviewer with the claim --

MS. MUNN: Yes.

MR. HINNEFELD: -- in addition to the site. So there's that additional element with eight. Eight, nine and ten are very much the same.

MS. MUNN: May we close nine and ten by saying that they will be covered by item eight? Any objection to that?

MR. ELLIOTT: Well, at the risk of belaboring the discussion here, I need to understand a little more as to what is intended by the comment that the interviewer needs to understand the claim better. What part of the claim or what aspect of the claim needs to be better understood by the interviewer in order to conduct an effective interview?

MR. HINNEFELD: I don't know the specifics; we said number eight, but they said in one of the findings later on it has to do with having the exposure history available to the claimant -- or to the interviewer during the interview. Right now, the interview doesn't necessarily wait on the response from the DOE on the exposure.

DR. ZIEMER: I don't think it's mentioned in

eight, nine or ten.

MR. HINNEFELD: No, it's not mentioned in eight, nine or ten, but it comes up later. And then Arjun talked about having the claim open in front of him. That would be something, somewhere we might want to go because maybe that's worth talking about some more. At the time of the CATI interview, the claim file essentially consists of the package that the Department of Labor sent over to us.

DR. ZIEMER: So you don't have the DOE records.

MR. HINNEFELD: Not now. Sometimes yes, sometimes no, might or may not. It's not a required to proceed with the interview but it might be there. So the file that the DOL sends over is the claimant form and one, two, three or something like that, the form that the claimant fills out in order to file a claim with the Department of Labor.

On that there's some information the claimant fills in about where they worked and their job title and things like that. And then there is the, behind that there's usually, there will be the medical information

that they provided to the Department of Labor. And then there will be whatever the Department of Labor has done to develop and support the information in the application, usually an employment verification, and there may be some interpretation of the medical record, maybe not.

There may not be anything, any kind of interpretive statement, but sometimes the medical information is pretty lengthy. So from the status, now, the interviewer has available to them on the screen without ever opening the claim file most of the demographic information that's associated with the claim.

It will show them what the covered employment is, what the diseases are, what the covered conditions are so that that's available to them on a view screen. And, in fact, I believe it's probably on the CATI report. One of the things they do is ask the claimant to verify these are the covered conditions that the Department of Labor has told us about. Are these the cancers that you have.

MR. ELLIOTT: And the employment history.

MR. HINNEFELD: And the employment history. So opening the file, the claim file, or having the claim file or making the interviewer open the claim file, to me, doesn't provide them a whole lot more information than what's on the view screen that's used actually to populate the CATI form.

So other than the exposure record, the DOE exposure record, which would be perhaps relevant information, to verify, then you'd have to gin up the question the Department of Labor indicates that you were monitored from this year to that year or from these years to those years via film badge and that you had bioassay samples.

Rather than go through that which requires an interpretation of that record by the way, and not necessarily an easy one especially in the case of Hanford, there's not a lot in the claim file that's really beyond what's just automatically produced on the CATI form.

DR. ZIEMER: Well, is this being asked for in a different item that we're not --

MR. HINNEFELD: Well, that exposure history

comes later. It's in one of the later findings. But this one Arjun did on one of the findings, number eight, talked about the interviewer being more knowledgeable of the claim, and Arjun mentioned that they're not required to have the claim file open when they do the interview or have the claim file when they do the interview.

And I guess my point is that the bulk of the claim file at that point doesn't, you know, can be many, many pages, but the information that really is relevant to our task is the demographic information and the information about covered conditions of covered employment which is automatically reproduced from database onto the CATI form.

So I don't know that access to the claim gives the claimant or the interviewer a lot more information than they have from the database information that's summarized for them.

DR. MAKHIJANI (by Telephone): That may be right, Stu. That may be right. Yeah, it's possible that it doesn't add a whole lot in the interview if you get into all the details

of how the claim files ^ look and how difficult a lot of paperwork is. This may not be, this is not necessarily a useful suggestion.

MR. HINNEFELD: And one thing you all need to keep in mind, this report was originally written in 2005.

DR. MAKHIJANI (by Telephone): No, it was written in 2004, sent out in January of 2005.

MR. HINNEFELD: And Arjun's seen a lot more of the program since then. And so he may not have written this today.

DR. MAKHIJANI (by Telephone): Yeah, I think knowing how difficult a lot of the material in the individual claim files is, I think it's not a very useful suggestion.

MR. MARSCHKE (by Telephone): Just for a little clarification, at the end of issue eight in parentheses it refers back to finding eight of the original report which talks about family member claimants. And in issue nine in the parentheses it refers back to finding one of the original report which refers to worker claimants.

So I guess really the fine points

between, the difference between issue eight and nine is that, does any additional knowledge or information need to be provided to an interviewer who is interviewing family member claimants as opposed to a worker claimant.

DR. ZIEMER: Well, I'm certainly willing to answer that. I think the answer is no, and here's the reason. Number one I think there's often a misconception, particularly among family members, that there's a burden on them to provide the information to process the claim, when, in fact, we're simply trying to supplement the information. Do they have other information that we don't already have. But I don't think it serves us well to say, to try to coach them on what the claimant did as part of gathering information. It's sort of -- in fact, we need to make it clear to them that processing the claim is not dependent on their knowing details of the claimants' work, and I think we do that, at least we try to, right?

MR. ELLIOTT: I hope we do. I think we do.

DR. ZIEMER: Although we still hear these

comments from family members who say they asked me to provide all of this information, and I don't know anything about it. We certainly need to make it clear if they know additional things, fine. If not, the claim will be able to be processed very well, thank you.

MR. ELLIOTT: But I would hope we're doing that. I think we're doing that, but it's something that we always feel we need to revisit with whoever does interviews.

DR. ZIEMER: In fact, the family members may not even be able to verify all the things that the claimant did that Stu was talking about.

DR. MAKHIJANI (by Telephone): It may be useful in this context to insert, to let the individual know that if NIOSH feels they cannot do dose reconstruction, that they do initiate 83-14 special exposure cohorts. It may not be. I mean, it's a suggestion that might put the claim -- and now that you have done, initiated many, quite a few 83-14 SECs, you have a track record that you can point to with claimants that always believe that you have enough information in that you've

initiated a number of them which could put them a little more at ease that, you know, if you don't have enough information that you'll do that.

DR. ZIEMER: Yeah, but in a way that's still the same end result that we can proceed, that it's not dependent on the family members to come up with details on the work or the incidents or the type of materials worked with or locations or anything else. So I think in answer to the original question do you give, do we need different training for the interviewers for family members or different -- what is it -- different information that's given to them. I don't think so.

DR. MAKHIJANI (by Telephone): One could take a fairly radical position here and say the interview's almost never useful, and why do the interview. Why not just do it in those cases where the dose reconstructor feels they need information from the claimant?

MR. HINNEFELD: Well, that could work. Need a rule change.

DR. MAKHIJANI (by Telephone): Yeah, I mean, these comments --

DR. ZIEMER: Well, these aren't claimants.

DR. MAKHIJANI (by Telephone): -- a part of the problem has been resolved by the changing of the original letter that was sent that said this is critical, you know, your dose reconstruction may not work if, you know, it may not be able to be done accurately if you don't provide this information. And that has been changed. That letter has been improved, and so the imperative language has been taken out of it.

But if the materials in the interview are rarely useful, then -- and I think in reviewing dose reconstructions -- Hans and Kathy are not on the line I imagine -- but generally we found that the dose reconstruction is done without much reference to the CATI. And in that case there's a sort of a bigger question that arises, and maybe we're doing them just because they're part of the regulation.

DR. ZIEMER: But on the other hand there are still a number of claimants, that is family member claimants, who have had a wealth of information about their family member for whom

the claim is being initiated. So some know nothing, but we've seen some that know a lot. But I don't think you can eliminate that interview. They are claimants if the individual has died and they are, they have the same status legally, don't they?

MR. ELLIOTT: They do have the same status.

DR. ZIEMER: Entitled to an interview and --

MR. ELLIOTT: But there's no requirements that an interview be conducted out of the law. We put that in there in our regulation --

DR. ZIEMER: Yeah, but it's there.

MR. ELLIOTT: -- thinking that we wanted to hear the individual worker's side of the story, and if a survivor claimant had anything to offer to supplement the information for the claim to better our ability to reconstruct dose, we wanted that. We want to give them the opportunity to provide that. It's really a test of just how much value we have gained from the interviews. If we do away with it, we'd have to do an assessment of that.

MR. MARSCHKE (by Telephone): We could make the interviews optional by the claimant.

MR. ELLIOTT: Well, they are. They are

right now. They're voluntary. They don't have to go through an interview. In fact, we've had some that have declined interviews.

MS. MUNN: But the issue with number 11 is whether or not the follow up action that's listed from NIOSH is adequate for us to close it. It says this finding refers only to the page in the checklist. The statement of the finding is pretty complete. It appears on the checklist. Also seems to allude to additional discussion on this topic. There's no reference to where that discussion appears. If there's additional discussion, its page number would help. Is there additional discussion or can this be closed?

MR. HINNEFELD: Are we on to 11 now?

MS. MUNN: Well, I thought we were.

MR. HINNEFELD: I thought we went up to ten.

MS. MUNN: I thought we had beaten ten to death.

MR. HINNEFELD: I didn't say we hadn't beaten it to death.

DR. ZIEMER: No, he had pointed out that the difference between eight and ten is one refers to family member interviews and the other

referred to the energy employee.

MS. MUNN: But we had discussed that and had concluded that the wording that we were going to use to close eight would cover --

DR. ZIEMER: Nine and ten.

MS. MUNN: -- nine and ten.

DR. ZIEMER: I think so.

MS. MUNN: So let's look at 11 before we take a comfort break.

MR. HINNEFELD: Okay, number 11 that 7/3/08, the last, the lowest listed one on the page, was that was my comment to Arjun to try to clarify. And then he responded on 7/15. So it appears above our comment. And he points out that this finding relates to findings number four and eight on page 208 of their report.

So while the statement of the finding as it existed in the database just referred to the page number for the checklist, Arjun says that's supposed to relate to these two other findings in the summary finding section. And so that's that discussion. That was the discussion we had, our e-mail exchange between the last work group meeting and this one.

With respect to number 11, if I can summarize -- and if I miss this, Arjun, please help me out.

DR. MAKHIJANI (by Telephone): Sure.

MR. HINNEFELD: My reading of finding number four is that, finding number four speaks again to the disadvantage of survivor claimants and recommends that a coworker interview be required in the instance of a survivor claim with the attempt to try to find someone akin to an EE claimant, you know, an EE claimant who was actually on the work site actually doing what he did, try to find somebody akin to them and make a requirement to do a coworker interview for a survivor claimant. That's number four.

And number eight I believe also speaks to the level of preparation about the -- and specific knowledge on the part of the interviewers. Did I summarize those okay?

DR. MAKHIJANI (by Telephone): Yeah, eight is actually a summary of all the things we said in regard to the difficulty being greater for family member claimants.

MR. HINNEFELD: Right, and so this would

then be additional preparation for survivor interviews on the part of the interviewer.

DR. MAKHIJANI (by Telephone): Yeah, there are other things in number eight. It's just a summary list of bullet points, stuff about closing interviews and the health physicist should be present, in finding eight in the original report on page 211. Yeah, I think finding four is as you said.

MR. HINNEFELD: And I guess from our discussion so far we felt all along that coworker or fellow employee, fellow worker interviews we want to do those when we don't have enough information otherwise, and in most cases we feel like we do. Consequently, we don't feel like we should necessarily go do coworker interviews whenever we have a survivor claimant.

We think that we have in almost all cases enough information anyway and why add that because that's a significant increase in the amount of work necessary to complete coworker interviews for every survivor claimant because about half our claims are survivor claimants.

DR. ZIEMER: Unless you have the issues that Larry raised about privacy of the claimant itself vis-a-vis the coworkers.

MS. MUNN: Arjun?

DR. MAKHIJANI (by Telephone): Yes. I think we've discussed the issue of coworkers and some language has been suggested and NIOSH is going to revise that language so we can review it at that time.

MS. MUNN: So item 11 --

DR. ZIEMER: It's basically the same issue.

MR. HINNEFELD: Yes, it's largely the same issue as the earlier discussion about coworker interviews and letting people know whether we're going to do them or not, what kind of expectation do they have.

DR. MAKHIJANI (by Telephone): Yeah, and when I reviewed it in writing these responses to you, Stu, I did find that some, because of the way the checklist was organized, and then we did findings on top of the checklist, there was a fair amount of repetition as you had noted so some of these things keep popping up because there was repetition in the original finding.

MS. MUNN: So may we close this with the understanding that it is being addressed?

DR. MAKHIJANI (by Telephone): Well, I thought we were going to put it in abeyance because NIOSH was revising the language. Now if we don't want to revisit the language, you can close it.

MS. MUNN: All right, my concern is, is it in abeyance and going to require additional language on this item, or is it in abeyance awaiting language on other preceding items? That's my concern.

DR. MAKHIJANI (by Telephone): It's a duplication of the preceding items. We already discussed that, and I understood Stu to say they're going to revise the language. And this is essentially the same thing.

Am I misunderstanding that, Stu?

MR. HINNEFELD: No, I think you're right. I think it's number seven. I'm trying to sort out which one it was. I think it's finding number seven.

MR. MARSCHKE (by Telephone): I agree with you, Stu. I think it's number seven as well.

MR. HINNEFELD: Okay.

DR. MAKHIJANI (by Telephone): Yes, unfortunately, this is a little bit of a duplication. I'm sorry about that, but there was some duplication in the original.

MR. HINNEFELD: So that one will be addressed in finding seven.

MS. MUNN: Good, in abeyance for now.

MR. MARSCHKE (by Telephone): I think one of the reasons there's duplication, Arjun, is because we took three procedures, and comments from three procedures and put them together into one procedure.

DR. MAKHIJANI (by Telephone): Yeah, we also used the checklist. Now, we did the same thing, you know, we didn't have to go to the OMB, but we had to go to the Board to revise our checklist. And we thought instead of dragging things out we'd use the DR checklist for a procedure review, and it didn't really work too well.

MS. MUNN: No, it seldom does.

DR. MAKHIJANI (by Telephone): And some of the problems arose from that.

MR. HINNEFELD: And so in order not to miss any findings, the way the report was written

when the list of findings was compiled, they would pick a finding off a checklist and then they would pick the findings as they were expressed later on, and so as a general rule the checklist, the later on information just supplemented what was on the checklist.

DR. MAKHIJANI (by Telephone): And we said the same thing in different ways and so we got some confusion unfortunately introduced in the process.

MS. MUNN: Well, that's one of the things I hope that we can achieve by going through these one by one, is diminishing this staggering number of items that we have down to a handful that address with more specificity the concerns that we have.

DR. MAKHIJANI (by Telephone): I believe, Ms. Munn, there are a handful right now.

MS. MUNN: Before we address item 12, let's take a no longer than 15 minute break. Be back at 3:15.

(Whereupon, a break was taken from 3:00 p.m. until 3:15 p.m.)

MR. KATZ: This is the Advisory Board on Radiation Worker Health, and it's the

Procedures work group. And we're just starting back up after a break.

MS. MUNN: We're starting with PROC-0012, correct?

MR. HINNEFELD: PROC-0090, finding 12.

MS. MUNN: Oh, I'm sorry, PROC-0090, finding 12.

MR. HINNEFELD: And this has to do with the knowledge of the interviewers, the facility knowledge of the interviewers.

MR. ELLIOTT: Somebody doesn't have their phone on mute, or is it feedback in here?

MS. MUNN: Hold on just a moment. We had an interference problem.

Go ahead, Stu.

MR. HINNEFELD: Okay, I believe this is essentially the same as the other earlier findings about the facility-specific knowledge of the interviewer.

MS. MUNN: It appears to me to be.

Arjun, are you back?

(no response)

MS. MUNN: Arjun isn't back so we can't get his buy-in, I guess.

Steve, are you there?

(no response)

MR. HINNEFELD: Could be they gave up.

DR. ZIEMER: We're not on mute, are we?

MR. KATZ: We're not on mute.

DR. ZIEMER: Mark or Mike still there?

MR. KATZ: Is anyone on the line?

MR. GIBSON (by Telephone): Yeah, this is Mike. I'm here.

MR. KATZ: I think maybe we're a little early.

MS. MUNN: Two minutes. Two minutes early.

Let's see if anything other than item 12, item 13.

DR. ZIEMER: Is 12, did we decide that's the same as eight through ten?

MS. MUNN: Well, since our folks are not back here yet so that we can ask them that. I'm just asking us to take a look. It appears that 12 and 13 --

MR. HINNEFELD: Twelve takes a little different approach here when you read the bulk of it in the report. It advocates outreach to communities of claimants in advance of the CATIs, the need to make the CATI less threatening and more complete site knowledge

on the part of the interviewer. So there's kind of something, the second and third parts of that I think have been addressed.

The first part advocates outreach to communities of claimants. So this I think was in the context of, I know Denise was one of the people who was interviewed for this review, and at the time there were a lot of people, Mallinckrodt employees, who were awaiting, were being scheduled for CATIs and Denise was getting a lot of calls, can you help me with this.

And the comment was in these situations where you have these pockets of claimants, where you're going to be doing a large number of interviews, perhaps it would be worthwhile to go do an outreach to just kind of familiarize it with the CATI process. We've never really done that, you know, done outreach for the purpose of CATI process. And it's sort of moot at this point anyway because like Larry mentioned earlier, the days with large pools of claims ready to be interviewed from specific sites are pretty much done.

We interview them, the interviews are

fairly current, the CATI interviews are fairly current. There's not a really long wait between the time a case is referred to us and the time the interview's done. And so they're done just as they come in. So you don't really have this opportunity for outreach out there any more to go to these pools of uninterviewed (sic) claimants.

So to me since that really doesn't seem to be in the cards any more at this point in the program, and the other two parts of it I think have been addressed to make the CATI less threatening was, I think, addressed by our change in the letter to the claimant and more complete site knowledge by the interviewer is subject of several other findings that we've already talked about.

MS. MUNN: Hopefully, when Arjun and Steve get back --

DR. MAKHIJANI (by Telephone): Yeah, I'm back.

MR. MARSCHKE (by Telephone): We're both back.

MS. MUNN: Oh, good you're back. Did you hear the bulk of the comment?

DR. MAKHIJANI (by Telephone): Unfortunately, I did not. I didn't realize I was late.

MS. MUNN: I started two minutes early. You can blame me.

MR. HINNEFELD: Arjun, what I said about number 12 was, number 12, while the summary statement on the database talks about the interviewers are trained to be sensitive but do not require facility knowledge, and this apprehension that the procedure's not addressed, as I read the finding in the report, not the summary statement here, it seemed to me that there was an advocacy in this write up for conducting outreach-type meetings to communities where there are a large number of claimants to be interviewed.

I think this came up in the context of a discussion with Denise Brock at the time. And she had received a lot of calls or a lot of Mallinckrodt claimants who were being scheduled for interviews. She was getting a lot of calls when people were concerned about doing a good job in the interview. And so I believe the comment stated that it would be a good idea to go to these communities where you

have, you know, do some outreach so you could, people could be familiar with the interview process before they got into it.

Well, we didn't do that. At this point those populations of claimants, of uninterviewed (sic) claimants don't really exist any more. The current interviews are pretty current, you know, they're done pretty quickly after the case is referred to us. So the opportunity for doing something like that seems to be gone. Then it also, emphasize the need to make the CATI less threatening. We believe we've done that in large part by the change in the letter we send to claimants.

And then it also advocates more complete knowledge, site knowledge, on the part of the interviewers which we've addressed quite a bit here already.

DR. MAKHIJANI (by Telephone): I agree with all that.

MS. MUNN: May we close item 12?

DR. MAKHIJANI (by Telephone): Yeah, I think so.

MR. HINNEFELD: And then 13.

I'm sorry, are we ready for 13?

MS. MUNN: Yes.

MR. HINNEFELD: The procedure does not require an interviewer ^ to elicit site-specific data. Again, I think this is another statement of the finding earlier about the preparation of the interviewer for the interview in order to be as helpful as possible. And I think we've kind of talked that one quite a bit as well.

DR. MAKHIJANI (by Telephone): Yep, I agree.

MR. HINNEFELD: I don't know if that's closed or addressed in another finding.

MS. MUNN: Yes, it's closed, captured elsewhere.

Item 14.

MR. HINNEFELD: Interview contains numerous gaps. This is what we talked about at some length earlier on. This finding refers to the page or so of specific recommendations about what to do on the CATI form, which I think would appropriately be in abeyance as we are going about revising that form for the reason of a re-approval.

And so I forget where we ended up with that. I think if I recall, the work group was

going to look through the recommendations in the report and maybe provide ones to us they thought should be particularly important to address.

Was that where we were with that?

MS. MUNN: Well --

DR. ZIEMER: Discuss it at the next meeting.

MS. MUNN: -- it was, I hope, that NIOSH would also be putting together a list of recommendations that they had had up to this point that they were willing to consider in terms of potential revisions to the CATI.

And I had asked the members of this work group to go through the report and this procedure again and to list individually concerns that they had with respect to what might be added to. And that that would be our primary, our first topic at our meeting in September at the end of the Board meeting since that fits your schedule for, if we can come to some conclusion at that work group meeting with respect to recommendations from NIOSH.

MR. HINNEFELD: So you would like us then to provide essentially our take on these

recommendations in advance of --

MS. MUNN: Yes.

MR. HINNEFELD: -- (indiscernible).

MR. KATZ: Our plans for changes.

MS. MUNN: The ones that you already have.

MR. HINNEFELD: -- and receive the proposed revisions.

MS. MUNN: Yes.

DR. ZIEMER: Isn't this part of the issue as to seeing the work product in advance of your submission to OMB?

MR. KATZ: First, there's nothing to, if you want to see our plans for how we're going, our basic plans for how we're going to change the CATI interview --

DR. ZIEMER: We don't have to approve it, but we need to see it.

MR. KATZ: -- don't have to approve it, but if that will help you then in making any further recommendations as to what you might have --

MR. HINNEFELD: I can tell you some of the recommendations --

MR. KATZ: -- add to the --

MR. HINNEFELD: -- have just been adopted in

our recommendation. There's no question about overtime work that's in there now, in the proposed revision. There's this statement here there's no separate form for coworkers, when, in fact, there is one. There's no question about in vivo monitoring, and that's been added. So there's some that we just said, we just took at face value and put in there.

MS. MUNN: And using that as a skeleton for this work group to base any additional information on that would be the topic of our conversation when we met in September.

DR. MAKHIJANI (by Telephone): Ms. Munn, if we know the items that NIOSH is already incorporating, it might be the subject of a brief working group call or technical call between NIOSH and us that we can make notes and communicate to the working group if NIOSH wants closure on this before. I'm a little concerned that we should not slow down NIOSH in any way or kind of have comments after NIOSH's deadline.

It might be better if we got all the comments in before, well before NIOSH's

deadline for submittal. At least that's the way it seemed to me, but maybe Larry, it doesn't matter to NIOSH.

DR. ZIEMER: We can do the public comment period if --

DR. MAKHIJANI (by Telephone): Okay, that's fine.

DR. ZIEMER: -- the other thing on this is probably we need to make sure that Mike Gibson's Worker Outreach group also gets the same material.

DR. MAKHIJANI (by Telephone): Okay, fine.

MS. MUNN: Mike will have it.

DR. ZIEMER: Mike will have it. Mike, you -- anyway, right, from us. So it's part of the same thing that was raised earlier.

MS. MUNN: Are we in agreement on item 14 then, in abeyance? Will be addressed by the revisions.

(no response)

MS. MUNN: Item 15.

MR. HINNEFELD: The procedures do not provide for explanation if information is not used. I think this is a good point. I think it's, you can't really put that in the

procedure for CATIs though because at the time the CATI is done, you don't know if the information in the interview is going to be used or not.

What we have done, independent of any changes in the CATI procedures, we do now address this in the dose reconstruction. And that specifically any incident information that the claimant provides is addressed in their dose reconstruction report whether it's relevant to dose reconstruction or not even to the point of when they speak about non-radiological exposures.

We say, we address that in the dose reconstruction. It was just a comment that this doesn't affect the radiation exposure. So I believe that's been done. I don't know if I can show you a procedure that requires them to do it, but I can tell you it's done because it's one of the things we check for.

MS. MUNN: SC&A, can we close this?

DR. MAKHIJANI (by Telephone): Yeah, I believe so, yeah.

MS. MUNN: Work group members, closed?

DR. ZIEMER: Yes.

MS. MUNN: Item 16.

MR. HINNEFELD: This is the one I talked about earlier, the DOE file, the exposure history file is not required to be with the interviewer during the interview. And, in fact, we do not wait for that response necessarily to schedule the interview. Sometimes it will be there. Sometimes it won't. But we don't necessarily ask the interviewer to make that a part of the (indiscernible).

There is a fundamental difficulty here, and that is interpreting the exposure history. That's the fundamental difficulty because exposure histories that you get from the various sites are not always clear. Until you've looked at a number from that site, it's not always clear what you've got. At Hanford you get the same thing in two or three different formats.

So it's a little difficult to interpret what you're looking at. Usually, it takes a health physicist some instruction and a few times looking at a particular site's reports to really know what he or she is

looking at. So if we have the exposure history open in front of the interviewer, I don't know that that by itself sufficiently helps anything.

So then the question would become would it be helpful during the interview for the interviewee to know what kind of exposure record we received from them about them so that they could at that time say, well, that doesn't sound right. I know I wore a badge the whole time I worked there, or something to that effect. I believe that might be the intent.

Is that the intent, Arjun?

DR. MAKHIJANI (by Telephone): It is the intent.

MR. HINNEFELD: Okay, so now that is a more complicated thing than just having the response available to the interviewer.

MS. MUNN: Are we not then doing two things? First, we're implying that you won't do a CATI until you have this information.

MR. HINNEFELD: That would be one aspect.

MS. MUNN: I don't think we want to --

MR. HINNEFELD: Well, I don't know what kind

of work redesign that means.

MS. MUNN: And the second thing would be, is this not in the arena of dose reconstruction, not CATI.

MR. HINNEFELD: Well, the opportunity, during the interview with the worker, it would give you the opportunity at that time before you do the dose reconstruction for the worker to say they didn't give you all my exposure history because I know I wore a badge that whole time, and we could make additional inquiry.

Because right now we would go ahead and do the dose reconstruction, we would send the person a dose reconstruction report, and they would say, wait a minute. You say I was monitored for these years here, but I was monitored for my entire employment. And so at that point, at close-out interview time, is then when we go back to the Department of Energy and see if there's some reason, you know, have them look again if there's some other way to look to try to resolve that issue.

MS. MUNN: Arjun and Steve --

DR. MAKHIJANI (by Telephone): Yeah, I think if I got the gist of Stu's comment right that this is better dealt with at the close out interview.

MR. HINNEFELD: That's when we deal with it now. At that point then a health physicist in the normal course of things has looked at the file, has interpreted the exposure history report and has, writes in the dose reconstruction report, I believe, that monitored from these dates to these dates. And so during the close out interview that's discussed with the claimant.

If the claimant says that's not right, I was monitored more than that or that's not right, I was never monitored, then there's an issue that has to be resolved during the close out interview process before the dose reconstruction can move forward.

DR. ZIEMER: And that interview is done by --

MR. HINNEFELD: That's done by the same interviewers, but in this instance I believe it would be flagged by either a reviewer or even to an HP about what do we do about this

CATI.

DR. ZIEMER: So it's just a little later in the process when they actually had a chance to gather the dose information and do the first cut on the DR?

MR. HINNEFELD: Yes. It's after a draft dose reconstruction is prepared.

DR. MAKHIJANI (by Telephone): Now, I can't remember what the status of our resolution is regarding all the stuff around the presence of a health physicist and the reviewed by a health physicist of the material offered during the closing interviews and how all that is handled. I agree that PROC-0090 is not the right place to review all that, but I think it's all still open under the closing interview.

MR. HINNEFELD: I mean, this could be transferred to -0092 if you wanted to do that and with the idea that --

DR. MAKHIJANI (by Telephone): Yeah, I think that that would be useful. It would be useful to transfer it to -0092.

MR. HINNEFELD: And I do know that ORAU now spends additional effort with dose

reconstructors dealing with interviewers and interview reviewers to make sure that there's more a steadier flow of information among those people. And I think the interviewers are probably asking the health physicists more for interpretation at close out interview time than they were at the time when you reviewed close out interviews.

DR. MAKHIJANI (by Telephone): Okay.

MR. HINNEFELD: As a result of that as a matter of fact. So there's been some movement there, but since we're not on that, and I don't think we'll get to it today, I don't think I'll last that long, I suspect that maybe just saying that this would be one that's better suited for the close out interview aspect of things might be the best way to go.

MS. MUNN: So our final comment would be, if the work group agrees, that this will be dealt with at the close out and the disposition is transferred to PROC-0092. Is that acceptable to all?

DR. ZIEMER: Yes.

DR. MAKHIJANI (by Telephone): Agreed.

MS. MUNN: Work group members?

DR. ZIEMER: Yes.

MR. GIBSON (by Telephone): Yes, sounds fine.

MS. MUNN: Item 17.

MR. HINNEFELD: This again is the, well, it's similar to the earlier one. When you read the whole write up in the report, it advocates better preparation of the interviewer. It recommends requiring coworker interviews for survivor claimants and/or a better explanation as to why coworkers weren't interviewed.

I think that part we can address in the dose reconstruction by saying this is the information used in your dose reconstruction and coworkers were not interviewed because sufficient information was available. Now, something like that can be done in the dose reconstruction. And then the other things that we talked about.

DR. ZIEMER: Eight through ten would cover the rest of that, wouldn't it?

MR. HINNEFELD: Yes.

MS. MUNN: Nothing new in here that we

haven't already discussed, is there?

DR. MAKHIJANI (by Telephone): Yeah, no, you're right, Ms. Munn. That's right.

MS. MUNN: So this is covered by the language that's going to be inserted in item eight.

Is this in abeyance or closed?

DR. MAKHIJANI (by Telephone): I think it's simply transferred. It's a duplication of, you may say it's a duplication of other items now covered, something like that.

MS. MUNN: Well, but we're not transferring it to another procedure.

MR. HINNEFELD: This is addressed in a different finding.

MS. MUNN: We're addressed in a different finding. So that would close it.

Item 18, insufficient (indiscernible).

MR. MARSCHKE (by Telephone): This is the same as 14.

DR. ZIEMER: Yeah.

MS. MUNN: Is the final statement covered by item 14?

DR. ZIEMER: Fourteen, the CATI gaps are --

MR. HINNEFELD: The CATI gaps are 14. The

interviewer training is eight through ten, I believe.

MS. MUNN: Covered by items which we are going to all put under item eight and 14 and closed, correct?

(no response)

MS. MUNN: Item 19.

MR. HINNEFELD: This is the one about requiring coworker interviews for survivor claimants and for also, I guess, maybe about being more clear and what if coworkers weren't interviewed. I think it's a repeat of another one.

DR. MAKHIJANI (by Telephone): I agree.

MS. MUNN: Covered by eight, closed.

Item number 20.

MR. HINNEFELD: I think this speaks to the CATI itself. Yeah, that's the way it looked to me was this seemed to be addressed in finding 14 and finding eight, so I think it has to do with the gaps in the CATI, and, I think, the training of the interviewers.

MS. MUNN: And the SC&A follow up says --

MR. MARSCHKE (by Telephone): Section 5.5, which is the gaps in the CATI, addressed in

14.

MS. MUNN: It was covered by item 14, right?

MR. MARSCHKE (by Telephone): Yes.

MS. MUNN: Closed.

Item 21, definitions.

MR. HINNEFELD: This has to do with definitions in -- let's see, this would have been the review procedure and what does it mean when someone reviews the interview for completeness and technical content. And it kind of originates in the fact that the reviewer, the interview reviewers, are not necessarily health physicists.

And that's kind of behind the nature of some of these findings in the review. When they say it's not technically, you know, when it's technically content and complete, shouldn't that be a health physicist making that judgment that, okay, this is a complete interview.

Well, the current work process is that the health physicist, when he gets the assignment to do the dose reconstruction, at that point then looks at the CATI and makes whatever judgment is necessary about the

completeness of the CATI and is there something here that needs to be resolved before you go ahead. I believe that's the work process.

So I think there was -- and I think actually these reviewers, interviewer reviewers, were actually called HP reviewers in the procedure. That certainly gave rise to this confusion because they're not HPs. I think that was the origin of the comment.

You have these people you call HP reviewers who are really not HPs. And when you say they're going to review this for completeness and technical content, since they don't really do dose reconstructions, how do they know it's complete and the technical content's okay.

So I think there's probably a wording change here that has to be made. I think it's actually in the upcoming revision to PROC-0090 that more clearly defines the role of these people and the purpose of this review and more thoroughly describes the use of, you know, that the dose reconstructor who actually then gets assigned to do the dose reconstruction is

the one who actually does the evaluation of the CATI to determine if sufficient information is available or whether more has to be sought. So I think that will be changed in their change procedure which would put this one in abeyance because it depends on a revision to the procedure.

MS. MUNN: So procedure revision will expand wording, right?

MR. HINNEFELD: Yes.

MS. MUNN: In abeyance. Any objection?

DR. ZIEMER: Looks good.

MS. MUNN: Item 22, this is the site profile about closing (indiscernible).

MR. HINNEFELD: This addresses a couple things. There's no reference to the site profile. I think -- and this is during the review of the interview, so I think that maybe has to do with does this review consider consistency of the CATI with the site profile. I'm not exactly sure about that.

But it also, additional findings, the purpose of the finding are that there's no reference to the close out interview and to the claimant. In other words the claimant's

not told that you'll have another opportunity after we draft the dose reconstruction. After what you've told us today, you'll have another opportunity to provide us input at the time we do the close out interview. So that was something that could probably be addressed in a procedure.

And then the final part of it is that the exposure history isn't addressed with the, you know, as part of the review. You know, the exposure history isn't balanced against what the person said to see if the recollection of their monitoring is the same as the history we got. And, again, as our current work process goes that's ^ that's done by the dose reconstructor, not by the HP reviewer.

It could be the origin of this comment at this point partly stems from the fact that these people called HP reviewers, and if you have an HP reviewer looking at it at that time, shouldn't they be making these judgments. In fact, they're not really HPs and so they're being asked to do other things rather than that, and the dose reconstructor

is the one who's called on to do those judgments when he's assigned to do the dose reconstruction.

So I don't' know. Arjun, is there more you wanted to talk about on this one?

DR. MAKHIJANI (by Telephone): No, no, I think this is also being dealt with under 0092.

MR. MARSCHKE (by Telephone): Is this, the initial NIOSH response refers them to, actually refers to what is now PROC-0090-dash-6 issue. And we basically, I think we're going to agree to transfer that to -0092.

DR. MAKHIJANI (by Telephone): Yes.

MR. MARSCHKE (by Telephone): That would be consistent.

MS. MUNN: Is that what we agreed on six?

MR. HINNEFELD: Yes, that's what we agreed on six.

MR. MARSCHKE (by Telephone): That's what SC&A and NIOSH agreed. I don't know that we've gotten the working group to agree yet.

MS. MUNN: Well, yes, I thought we had.

MR. HINNEFELD: I think you did.

MS. MUNN: Yeah, we did.

MR. HINNEFELD: Because that was the first one after the four closed ones.

MS. MUNN: So this would be covered by, yeah, it's covered by item six which transfers it to PROC-0092 which would make this one closed. Any disagreement?

(no response)

MS. MUNN: Very good. Item number 23, no explicit connection --

MR. HINNEFELD: No explicit connection to review information in closing interview provided. I believe this is a suggestion that at the time that this is done, at the time the CATI is done, you should not yet tell the claimant specifically so it would be in the procedure or in the script or somewhere that they will receive, after they receive the draft dose reconstruction based on the information they have, we will talk to them about it before it goes any further in the close out interview, and they'll have the opportunity then to see did we get their information appropriately captured in the dose reconstruction --

MS. MUNN: This is the same --

MR. HINNEFELD: -- and tell them specifically that. I think we've talked about this before.

MS. MUNN: The same item we talked about earlier today.

MR. HINNEFELD: I think we have. I'm a little hard pressed right now to figure out which one it is.

MS. MUNN: Yeah, I am, too, but we agreed that this was one of the language changes that we were considering for the new potential CATI changes.

MR. HINNEFELD: Either in the CATI or in the procedures.

MS. MUNN: That will be addressed elsewhere which makes it in abeyance, right?

MR. HINNEFELD: I believe so.

MS. MUNN: Any disagreement?

(no response)

MS. MUNN: Item 24.

DR. ZIEMER: This is the same one as 21, completeness and technical content?

MR. HINNEFELD: I believe so.

Does that sound right to you, Arjun, that this is --

DR. MAKHIJANI (by Telephone): Right.

MR. HINNEFELD: -- the same as 21?

MS. MUNN: So we said procedure revision will expand wording. So I'm going to say it's covered by item 21, closed.

Any objections?

(no response)

MS. MUNN: Item 25, reviewer qualifications.

MR. HINNEFELD: I believe in this instance we agree that these reviewer qualifications since they were called HP reviewers, I think we're changing that name actually in the revision of the procedure. So that needs to be spelled out a little better in terms of what these personnel do and what they're expected to accomplish when their qualifications ^.

MS. MUNN: And so where will that be done?

MR. HINNEFELD: That'll be in PROC-0090.

MS. MUNN: PROC-0090 revision. In abeyance.

Agreed?

DR. MAKHIJANI (by Telephone): Agreed.

MR. HINNEFELD: I think everybody's numb, Wanda.

MS. MUNN: We may have to disband before

we're finished.

Item 26, process is implicitly biased against family member claimants.

DR. MAKHIJANI (by Telephone): Could I explain that a little bit? We've had a lot of -- especially the use of the word biased -- we had a lot of findings and observations regarding the difficulties that were confronted by survivor claimants especially and elaborated on that quite a bit. And I remember John and I actually -- I don't know if John Mauro's on the line, but John and I had discussed at great length the use of this particular term.

The reason it is in there is that it was in the checklist originally for the dose reconstruction. This is one of those things that there was a Board-approved form that required us to say whether there was bias in the process or not and so it was very explicit in the approved form.

And so just to provide some context, that's how this word got to be used. But generally the thrust of it was that there were a number of situations where survivor

claimants were at a disadvantage, and it related to the coworker interviews and insufficient preparation of the interviewers and so on.

MR. HINNEFELD: So if it's the preparation of the interviewer, we have addressed that.

DR. MAKHIJANI (by Telephone): Yeah, we addressed coworker interviews as well, so I think the details as it concerns the use of the term biased have been addressed in other places.

MR. HINNEFELD: Okay.

MR. MARSCHKE (by Telephone): Well, 17, again, if you look at the initial response, 17-1 refers us back to PROC-0020 -- issue 20, PROC-0090, issue 21, which we said is going to be in abeyance. We're going to make wording changes there. And PROC-0003-dash-5 is now PROC-0090-dash-8, which we also said was in abeyance. And PROC-0005-dash-12 is PROC-0090-dash-17, which we said was addressed in eight.

MS. MUNN: We're expecting that item eight to address a wide range of other items here which were duplicative, anticipating language change that would cover all of those.

MR. HINNEFELD: Well, when you say all of those, I mean, many times it's a restatement of the same thing.

MS. MUNN: Yes, it is. The question is whether that language is anticipated to be inclusive of the issues raised here in 26.

MR. HINNEFELD: Well, Arjun described that the word biased comes in from the checklist, and what they were really commenting on was the preparation of the interviewer which is being addressed.

DR. MAKHIJANI (by Telephone): And also regarding the coworker interviews, the differential of information and so on.

MR. HINNEFELD: The requirement for a coworker interview when it's a survivor claimant which is being addressed in number 14.

DR. MAKHIJANI (by Telephone): Yeah, the elaboration of this -- just so people have the context -- this was the reason that we had that list of bullet points. I don't remember now what the finding number was. I think it was finding eight. Let me try to find it here. It was finding eight. We had a list of

bullet points, the ^ procedures are considerably greater for family member claimants than for employee claimants and we covered this earlier.

It was a summary of items that we already talked about, and this was the detail that was provided to justify or elaborate on the use of the term biased in the checklist. And then the checklist term got transferred to the matrix as well.

MS. MUNN: And does this change the checklist wording?

DR. MAKHIJANI (by Telephone): No, I don't think, well, the checklist wording is in the original 2005 report so I don't imagine it changes the checklist wording. It's just I think we've dealt with this in my opinion in the other specific items that we covered.

MS. MUNN: So we can say addressed in item eight and other PROC-0090.

DR. MAKHIJANI (by Telephone): I believe so.

MS. MUNN: And closed?

MR. HINNEFELD: Yes, it's addressed elsewhere.

MS. MUNN: Closed.

Agreed?

DR. MAKHIJANI (by Telephone): Yes.

DR. ZIEMER: Yes.

MS. MUNN: Item 27.

MR. HINNEFELD: I believe this really reflects the fact that an HP reviewer rather than a review by a dose reconstructor, HP reviewer is ^ a dose reconstructor. Like I said in our work process currently this review is done by the dose reconstructor when he or she gets the dose to reconstruct, they're assigned the case to reconstruct, they then make this judgment about the adequacy of the CATI and whether it would be beneficial to go back and try and get clarifying information. And so it's done at that point rather than earlier which you would probably expect would be done if it was, in fact, the dose reconstructor doing that HP review that the procedure talks about. We expect to address this by revising the PROC-0090 procedure and to be a little more clear about what the HP review, what was called the HP reviewer, but that isn't what's done there. So that's, we intend to revise the procedure to address

that. So I believe that puts it in abeyance. But it's also the same as other findings that we've already talked about these findings.

MS. MUNN: Right, and Arjun's follow-up action finding down there indicates that it really is finding nine issue.

MR. HINNEFELD: That's finding nine in the SC&A report.

MS. MUNN: In the SC&A report, yeah.

MR. HINNEFELD: It's not finding nine on any of the number --

MS. MUNN: I understand.

MR. HINNEFELD: -- in the database.

MS. MUNN: And that it's grammar. It's not a part of the CATI follow-up procedure. So our closing comment here would be concerns are now addressed in revisions to PROC-0090.

MR. HINNEFELD: Yes, and we think it's addressed in finding 21.

MS. MUNN: All right, finding 21 and closed.

Item 28. It's hard to see any difference in that and what we --

MR. HINNEFELD: Yeah, we've already talked about that. It's addressed in a couple of the other findings we've talked about. At least

eight and maybe, I'm not sure it's claimant dose records, but that's a little later.

MS. MUNN: So closed, correct? Agreed?

(no response)

MS. MUNN: Finding 29, completeness and technical content, and the last word from SC&A is they agree?

DR. MAKHIJANI (by Telephone): Yes, it's a duplication.

MS. MUNN: It's a duplication.

MR. HINNEFELD: It was number, what, 24?

MS. MUNN: And they said referred to 24.

DR. ZIEMER: Twenty-four is the same as 21.

MS. MUNN: We said 24 was being covered by item 21. So we can say item 21, okay?

DR. MAKHIJANI (by Telephone): Yeah.

MS. MUNN: And closed.

Can you believe we're at item 30, the last one of PROC-0090? Reviewer's not required to review the claimant DOE file. Can we say that's correct? They're not required to?

MR. HINNEFELD: It was under 16.

DR. ZIEMER: Well, the same as 16.

MR. MARSCHKE (by Telephone): Sixteen was

transferred to -0092. Or do we just want to --

MS. MUNN: I think it was transferred to -0092, but we also covered it under 16, right?

DR. ZIEMER: Right, which was transferred to -0092.

MS. MUNN: So if we say it's covered by 16, then we can close it because 16 says it's dealt with, close out and transferred to PROC-0092.

DR. ZIEMER: Right.

MS. MUNN: Correct?

DR. ZIEMER: Correct.

MS. MUNN: So we can close this one.

We will look forward to see a new updated listing on PROC-0090 when we get to the beach.

As I understand we have covered all the outstanding material in set one with this exercise. If that is not the case, please speak now.

MR. HINNEFELD: Well, we covered the open ones.

MS. MUNN: Yes, the open ones.

DR. ZIEMER: Forty-eight others in abeyance?

MS. MUNN: Yes, we will have a few more in abeyance here to finish this. But when this is updated, we can get a better feel for where we are.

MR. MARSCHKE (by Telephone): The ones that are in abeyance, I guess I ask the question have any of the procedures that they refer to been updated so that, I mean, SC&A could go back and look to see whether or not the procedure has, the revised words, so that we could maybe close out some of those 48 that are in abeyance?

MR. HINNEFELD: I know OTIB-0008 and OTIB-0010 have been revised. So I'm trying to pull up the database now to show, so I can get these on my screen. As I recall, OTIB-0008 and, ORAU OTIB-0008 and OTIB-0010 are in the first group and showing in abeyance, those have both been revised.

PROC-0006, there's one finding in abeyance. That has been revised to Appendix B, and Appendix B has been removed from PROC-0006. I need to get the list up to see if I can speak off the top of my head of any of the others. So I'm working on it.

MS. MUNN: Steve, the Microsoft Excel list that you sent us showing our total findings --

DR. MAKHIJANI (by Telephone): Would you say that again? I'm on my cell phone now unfortunately, and I'm having a little trouble.

MS. MUNN: Oh, I'm sorry. I'm sorry. I was just asking Steve about his Excel files that he sent us which I believe was intended to show all of the material we have in our basket.

Is that not correct, Steve?

MR. MARSCHKE (by Telephone): Yes, that was, that does show all the ones that were in the basket, yes. It doesn't necessarily identify which ones are with the first set.

MS. MUNN: Correct. I understand. I just wanted to check with --

Nancy, have you taken a look at that Excel sheet that Steve sent to us?

DR. MAKHIJANI (by Telephone): I'm sorry to interrupt. I got cut off because my phone battery ran out on me, and I had to reconnect. Could I sign off? I presume we're completely done with -0090 now.

MS. MUNN: We are completely done with PROC-0090. We're not going to talk about it again today I hope.

DR. MAKHIJANI (by Telephone): Thank you.

MS. MUNN: Thank you, Arjun, we appreciate your help.

MS. ADAMS: In answer to your question, I think I believe it matches the list.

MS. MUNN: Good. It's always comforting to know that the two sets of data are tracking. It is discomforting to know that we have 224 open items and 64 in abeyance.

MR. HINNEFELD: Okay, I think I can give some responses on these procedures in abeyance now. Nancy was kind enough to give me a printed out list of the ones that are in abeyance. There's a finding from OTIB-0001 that has not been revised.

IG-0001 has been revised, but I believe that the findings are shown in abeyance either came from the second look at IG-0001 or we determined in that second list not to have been addressed by the revision of IG-0001. IG-0001's been looked at twice. And so I believe the ones in abeyance for IG-0001,

there's been no change to address those.

MS. MUNN: That was five, right?

MR. HINNEFELD: How many? These aren't sorted so I don't know.

MS. MUNN: Oh, okay.

MR. HINNEFELD: I don't know how many there are. There are findings from OTIB-0004, revision two, at least one. There is a revision after that. There is OTIB-0004, revision three, but I don't know, you know, this may be a situation like IG-0001, like the later version was reviewed and determined that the in abeyance finding from the earlier version wasn't fixed in that revision.

Steve, do you know off the top of your head on OTIB-0004?

MR. MARSCHKE (by Telephone): I'm just looking up. Hang on just a second. OTIB-0004, revision three, yes, we did look at that one. And I think that's in the same category. We must have --

MR. HINNEFELD: Must have left some open that are in abeyance.

MR. MARSCHKE (by Telephone): Left some open, yeah. Only basically partially

resolved. I think that's the wording we used.

MS. MUNN: And those six that are transferred, were they transferred to PROC-0090?

MR. HINNEFELD: No, they're not, these are, I think anything transferred out of OTIB-0004 would probably have been transferred to global issues.

MR. MARSCHKE (by Telephone): The only one that I got being transferred in the first set was from IG-0001.

MS. MUNN: Okay. There was one, correct?

(no response)

MR. HINNEFELD: I keep looking through the OTIBs before I go to the procedures because of the way the documents are sorted here. I want to get through all the OTIBs first.

There's one finding in abeyance for OTIB-0007. OTIB-0007, I believe, must have been cancelled.

MR. MARSCHKE (by Telephone): I don't show OTIB-0007 being in the, at least not in the first set.

MR. HINNEFELD: Not the first set.

MR. MARSCHKE (by Telephone): I don't see

that being as one in the first set that was done in the first set.

MS. MUNN: Well, OTIB-0007 has everything closed on it and found out that Nancy gave us her status. There were four findings and four closures, only one of the original revision, rev. 00.

MR. MARSCHKE (by Telephone): I can run through and tell you which ones I have in abeyance if that would help, Stu.

MR. HINNEFELD: Yeah, if you can just maybe give the procedure number. Let's go through OTIBs first.

MR. MARSCHKE (by Telephone): I have OTIB-0001.

MR. HINNEFELD: That has not been revised.

MR. MARSCHKE (by Telephone): OTIB-0002, rev. 1.

MR. HINNEFELD: That has been revised. There's now a rev. 2, but I don't know if you guys have looked at that or not.

MR. MARSCHKE (by Telephone): I can find out. What did I say, OTIB --

MR. HINNEFELD: OTIB-0002. You said OTIB-0002.

MR. MARSCHKE (by Telephone): Yeah, we're supposed to have looked at that.

MR. HINNEFELD: You looked at rev. 2 so that's probably in the situation then where it's, the finding from rev. 1 wasn't completely closed.

So the next document then?

MR. MARSCHKE (by Telephone): The next document was OTIB-0004, which we've already talked about. OTIB-0008, which you said there's a new revision on.

MR. HINNEFELD: Yes, OTIB-0008 has been revised.

MR. MARSCHKE (by Telephone): OTIB-0010.

MR. HINNEFELD: That has been revised.

MR. MARSCHKE (by Telephone): And PROC-0006, and you said that one was revised as well.

MR. HINNEFELD: Yes, PROC-0006 was revised.

MR. MARSCHKE (by Telephone): And then the only other ones we had were OCAS, IG-0001, IG-0002.

MR. HINNEFELD: Well, two has not been revised. One has been revised but re-looked at. And those were determined to remain in abeyance.

MR. MARSCHKE (by Telephone): And then the TIB-0002.

MR. HINNEFELD: OCAS TIB-0002?

MR. MARSCHKE (by Telephone): Yes. There were two low priority comments, issues.

MR. HINNEFELD: Rev. zero, that's not been revised.

Eight and ten were revised. I think those should resolve those findings if I'm not mistaken.

MR. MARSCHKE: Okay, we'll take a look at eight and ten.

MR. HINNEFELD: And I think the PROC-0006 revision should, because the finding relates to Appendix B, and Appendix B was removed. That's the DCFs, and it relates to the issue on the IG-0001 DCFs. And since those DCFs exist in IG-0001, we did figure there was no need to have them in PROC-0006 as well so we just took them out.

MR. MARSCHKE (by Telephone): Right, that would make sense. So we'll take a look at those three for definite and maybe we'll be able to remove some of these or change some of these in abeyance ones to closed.

MS. MUNN: That would be wonderful and much appreciated.

OVERVIEW OF OPEN ITEMS FROM SECOND SET

I'm going to ask the work group whether we have the strength and energy to even begin to address the second set of items and ask for a report on where we are with the third set. I'm not certain how and when we can address the third set. We have a lot of open items in the second set. I don't have them broken out on my screen as to set right now.

MS. ADAMS: There should be 37 open ones.

MS. MUNN: Do we want to begin trying to do something with those or are we all brain dead to the point where we really and truly need to postpone with fresh eyes to undertake the second set? I'll leave it to the discretion of the group. I personally --

DR. ZIEMER: Do we have the matrix on the second set?

MS. MUNN: We have the matrix populated. I don't believe we have the matrix populated on the third set. Am I correct?

(no response)

MS. MUNN: Steve, can you give us an update on where we are with the second set and third set?

MR. MARSCHKE (by Telephone): The second set, I'm just looking at it now. Basically, we have, the ones that all are open it appears like they were, we have findings and NIOSH initial responses, but they were never discussed in the working group, and that's why they remain -- oops, there are some of them that were discussed in the --

MS. MUNN: Yeah, we picked, they were sort of selected, some of them were selected by reason of pressing requests for action on them in order to move forward in other things, but we've not addressed them as a group.

MR. MARSCHKE (by Telephone): Right. So I mean, the 37 that are open in the second set are, I guess they're ready to be discussed whenever, because we have the finding. We have the NIOSH response and so I guess whenever we want to sit down and discuss them, we can work our way through them.

MS. MUNN: We do have a fully populated database.

MR. MARSCHKE (by Telephone): Yes.

MS. MUNN: And, but I have not even attempted to begin the third set. Is that populated fully?

MR. MARSCHKE (by Telephone): Hang on just a second. I do not believe -- well, let me check before I --

MR. HINNEFELD: I don't believe we've entered our initial responses.

MR. MARSCHKE (by Telephone): That's what I was going to say, but I didn't want to be wrong again. I'm tired of being wrong.

MS. MUNN: I didn't think we had started to address them.

MR. MARSCHKE (by Telephone): Yes, all 145 of those are shown as being open. Well, wait a minute. Yeah, we really don't have the NIOSH responses to those.

MS. MUNN: We did have some NIOSH responses ready. Weren't they made but just not populated yet?

MR. HINNEFELD: I don't recall we provided them on the third set.

MS. MUNN: Okay.

MR. HINNEFELD: On the second set we have.

MS. MUNN: Yeah, I knew that the second set was done, but I had thought that there had been some work done on the third set. All we have is just the third set empty?

MR. MARSCHKE (by Telephone): That's what I'm showing, Wanda.

MS. MUNN: Okay, is there any probability that any of those are going to be populated prior to our September meeting?

MR. HINNEFELD: I don't know.

MS. MUNN: We'll have more than we can handle to begin to address the second set anyway.

MR. HINNEFELD: We may be able to populate some but not all. I'm a little hard pressed here to sort out where we are in terms of other things that are going on --

MS. MUNN: I understand that.

MR. HINNEFELD: -- we're asking our contractor to do.

MS. MUNN: Right. Could we request that you do take a look at where we are on that? And it would not be the expectation from here certainly that we populate that third set for the September meeting, but if we at the

September meeting had some idea where and when we were going to begin to look at that, it would be helpful. The current hope is that after we have addressed what we've already spoken about at the September meeting, that we will also begin to address the second set. We have the database populated. The question before us really is shall we do with the second set what we've just done with PROC-0090 which is start through those procedures as they appear on our screen and just plow through them one at a time rather than making any attempt to prioritize them since, so far as I know right now, we have no outstanding concerns from any quarter with respect to one given procedure that's holding something up. If someone's aware of such a thing, let me know, otherwise we'll work on the premise that we'll do what we can in September and at a minimum hope to begin to address the second set when we finish up our prior work. Any problems with that?

DR. ZIEMER: Sounds good.

MS. MUNN: Any thoughts or instructions for the good of the order?

(no response)

MS. MUNN: If not, I think we all need to take a deep breath and declare ourself adjourned.

(Whereupon, the meeting was adjourned at 4:20 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of July 21, 2008; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 10th day of March, 2009.

_____

STEVEN RAY GREEN, CCR, CVR-CM, PNSC

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102