THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

convenes the

WORKING GROUP MEETING

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

ABRWH WORKING GROUP MEETING

The verbatim transcript of the Working Group Meeting of the Advisory Board on Radiation and Worker Health held at the Cincinnati Airport Marriott, Hebron, Kentucky, on February 13, 2006.

C O N T E N T S

February 13, 2006

TRANSCRIPT LEGEND

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P R O C E E D I N G S

(8:00 a.m.)

DR. WADE: We should begin. This is Lew Wade. This is a meeting of the working group of the Advisory Board. This is a working group that looks at a variety of things, including individual dose reconstruction reviews, some site profile reviews and procedures reviews. The announced purpose of this working group meeting is to focus on procedures -- procedure reviews and individual dose reconstruction reviews, so those are the topics I think we can stick to.

We do need to talk about, you know, future scheduling of meetings and we'll do that at the end of this call.

Maybe we can start here in Cincinnati and identify who's around the table. This is Lew Wade, the Designated Federal Official.

MR. HINNEFELD: Stu Hinnefeld with NIOSH in Cincinnati.

MR. ALLEN: Dave Allen with NIOSH.

MR. TOMES: Tom Tomes with NIOSH.

MS. MUNN: Wanda Munn with the Board.

DR. NETON: Jim Neton with NIOSH.

MS. ROBERTSON-DEMERS: Kathy Robertson-DeMers

with SC&A.

MS. BEHLING: Kathy Behling with SC&A.

DR. BEHLING: Hans Behling, SC&A.

DR. WADE: And on the phone line we have?

MR. GRIFFON: Mark Griffon with the Board.

MR. GIBSON: Mike Gibson with the Board.

DR. MAURO: John Mauro with SC&A.

MR. KOTSCH: Jeff Kotsch with DOL.

DR. WADE: And no Robert Presley yet. Okay. Well, we're not -- we're not in search of a quorum, so we can begin our deliberations. This august working group is chaired by Mark, so Mark, any instructions or direction from you?

MR. GRIFFON: No, I mean I think it's -- it'll probably be a little difficult for me to -- to chair things from the phone, but we'll -- I guess we'll -- we'll be able to move through this. But I think we were going to start with the procedures review and possibly -- I talked to Kathy and Hans a little bit, and possibly might want to start with the CATI review section first, depending on -- on whether Joyce is on the phone yet, but I think we were planning on doing the CATI review section first

and then move into the internal dose procedures, and then go forward from there to the case reviews.

MS. BEHLING: That's correct.

DR. WADE: Okay.

MS. MUNN: So we're on page 27.

MS. BEHLING: Yes.

DR. WADE: How do you want to proceed? Do you want NIOSH to deliver their response or...

MR. GRIFFON: Yeah, I think that makes the most sense, if -- if NIOSH can --

DR. WADE: Okay, Stu, I guess --

MR. GRIFFON: -- just introduce their response, then --

DR. WADE: -- you'll be doing the talking?

MR. GRIFFON: -- we can discuss it, maybe.

MR. HINNEFELD: Yeah, I'll -- I'll do the talking I guess --

MR. GRIFFON: Yeah.

MR. HINNEFELD: -- for the most part, for NIOSH -- at least in this portion.

The -- well, the first finding for -- this is Procedure No. 4, which is one of the interview procedures, interview procedures. As captured in the matrix is that the interview letter sent

out -- is sent out without adequate dose reconstruction information. And I guess we have a fair amount of information to provide on this. I think some of the -- some of the comments that were made in this finding, although they're not captured in the finding description, had to do with sort of the -- there's a sort of course of nature of attachment that went with the letter to the -- the CATI letter that went to the claimant before they -- before they have the interview, and it kind of gave the impression that the interview was sort of this do or die thing, there's some -- there's some quotes farther -- farther back in our response, and we did in fact -- that language has in fact been changed. It's been changed for quite some time and it's a little milder now in the attachment. It doesn't try to -- we're hoping does not instill this anxiety in the claimant, which I think rightfully was mentioned in the -- in the comment. And so we think we've modified that language in that letter some time ago so that it's a little less anxiety-producing to the claimant, so...

And then the second comment had to do with the amount of preparation, and I think there's some -- some merit there, but we think that probably the preparation and information to the claimant is better provided at the acknowledgement letter. There's an acknowledgement letter that we send to the claimant when we first receive the claim from -- from Labor. And that acknowledgement letter contains some information -- what it contains right now is a cover letter and then the one fact sheet -- or a couple of fact sheets about what a claimant should know about radiation dose reconstruction, and then sort of a flow chart on how it goes -- how the process goes. In fact, we've been engaged in an initiative to have an acknowledgement packet which contains considerably more information.

I'm showing this, for those of you on the phone. It's a packet that includes the letter and probably four or five handouts, including a glossary and several pieces of information that we hope will provide better insight into the -- to the employee. Now I didn't make these to hand out because this is the draft and it's

being rewritten. It's being revised based upon our internal review, so it's timely time for us to take some of this information from these comments and make -- and see if we can incorporate it into this material readily. So I think there are a couple of things we can do -- well, one -- one thing we've already done. The second thing we can already do in the acknowledgement -- at the acknowledgement stage that provides better information to the claimant about what goes on with the process, overestimating techniques, things like that.

MS. MUNN: Stu, this is Wanda. Even though you haven't had -- I wouldn't have expected you to keep data on this sort of thing. Do you have the feeling that you're getting fewer negative bits of feedback from the claimant since you've revised your -- the tone of your letter a little? Can you tell? Was it too --

MR. HINNEFELD: Well, I can only speak anecdotally. I mean that was -- that was revised very -- you know, about the time I started in the program, really. I mean it was revised quite some time ago.

MS. MUNN: That was a long time ago.

MR. HINNEFELD: Yeah, it was revised quite some time ago. And so I don't have -- you know, other than anecdotally -- I do know I was approached -- before I ever started with NIOSH, I was -- you know, since I worked at Fernald, I was approached by people who had received letters --

MS. MUNN: Uh-huh.

MR. HINNEFELD: -- claimants had these received these letters and said how in the world can I answer this?

MS. MUNN: Yeah, yeah.

MR. HINNEFELD: And so there was certainly some anxiety on the part of the claimants based on -- this seemed to be -- like this is key; if you mess this up, you don't have a chance -- you know, your claim doesn't have a chance --

MS. MUNN: Yeah.

MR. HINNEFELD: -- was sort of the impression they got. And so I would think that the current language would be better, and -- and I don't -- I don't necessari-- I haven't really heard any complaints or any large body of complaints about that aspect of the letter -- you know, how -- if it makes them feel anxious

or not, the way it used to. But it would be only anecdotal. I mean the -- we don't -- that doesn't seem to be the complaint we get and -- now.

MS. MUNN: I'd appreciate having an opportunity to take a look at the packet you're going to send out, because one of the -- one of my concerns is that in our attempt to ameliorate the errors that we saw up front, we don't go too far the other way and overload people with so much information that they feel overwhelmed. My personal observation has been that many people, even who work in the industry for long periods of time, still don't really have a firm idea of what the terminology means --

MR. HINNEFELD: Right.

MS. MUNN: -- and what's -- if -- if what's in your packet is -- I guess I am expressing a mild concern that we not overload them with too much information, which is almost as bad as telling them they only have one chance anyway.

MR. HINNEFELD: Right. Let me provide these -- I mean everybody's free to look at these. Recognize that the packet has been commented on significantly on the internal review, and I

don't know what the nature of those comments -- I haven't seen the comments. I was just told that it's going to be revised considerably based on the comments on the internal review, and I don't know the nature of those comments. But we have significant comments, a few more from this body probably wouldn't hurt and -- you know, that I can take back as my comments on this packet, so --

MS. ROBERTSON-DEMERS: This is Kathy DeMers. I would also like to look at a copy of the packet.

MR. HINNEFELD: Why don't we just look at this one, if that's okay, while we're here then.

MS. MUNN: Yeah.

MR. HINNEFELD: 'Cause I just picked up the one. Like I said, it's a draft. It's really not for distribution, but since we're com-- we have commented on it internally, I don't think it would be a problem to take back more comments.

MS. MUNN: Sure a lot of stuff here.

MR. HINNEFELD: Yeah.

MS. BEHLING: Can I ask him if this -- this is Kathy Behling. Can I ask him if this

information will ultimately be put on the web site, also, for the claimants?

MR. HINNEFELD: I don't know, I'll have to ask. I don't necessarily control that part and I haven't really thought about whether this information is appropriate to the web site or not. It might be, but I haven't really thought...

MS. BEHLING: I think from SC&A's standpoint -- again, this is Kathy Behling -- we are in agreement that the letter has been modified.

MR. HINNEFELD: Okay.

MS. ROBERTSON-DEMERS: I guess before signing off on it, I'd like to see the packet.

MR. HINNEFELD: Well, it -- I mean we're -- we're obliged to provide the packet. I mean we're embarked on providing the packet and we'll -- we'll provide probably the final version then, you know, rather than this draft version.

MR. GRIFFON: Hello?

MS. MUNN: Uh-huh, yeah?

MR. GRIFFON: Hi, it's Mark Griffon.

MS. MUNN: I'm reading. Would you like me to read out loud, Mark?

MR. GRIFFON: No, that's okay. I got disconnected and I'm -- I'm dialing in again, that's why.

MS. MUNN: Oh, you're -- you're back?

MR. GRIFFON: Yeah, I'm back. I'm off to a roaring start here on the phone.

MS. MUNN: Well, I'm occupying time here by -- everybody's time here by thumbing through the packet --

MR. GRIFFON: Oh, okay.

MS. MUNN: -- that's being --

DR. WADE: Stu, could you --

MS. MUNN: -- put together for these folks.

DR. WADE: Stu, could you just tell the story of the packet again, just in case Mark didn't hear it?

MR. HINNEFELD: Yeah, Mark, the --

MR. GRIFFON: Yeah, please.

MR. HINNEFELD: With -- the comment relates to the inf-- the amount of information provided to the claimant with the CATI letter, when they're sent their letter arranging it, and -- and we feel like there's a better opportunity to provide that type of information, which is at the time of acknowledgement, and that's when we

receive the let-- when we receive a claim from the Department of Labor, we send an acknowledgement letter to the claimant telling them they have a -- we have their claim and kind of describing to them what will happen. And so we're actually changing from the acknowledgement letter with a couple of flyers inserted to a packet that has a number of flyers, including a glossary and several pieces of information. And so we believe that it -- that would be the better time to provide some of this information about what's going to happen with dose reconstruction, rather than at the CATI -- CATI stage. And --

MR. GRIFFON: Okay, yeah, I saw reference to that, too, and I wasn't sure what exactly --

MS. MUNN: What Wanda's looking at is a draft version of that packet, which is really draft because it's been commented on pretty considerably internally, but I thought we could -- if there are additional comments on it from here, I can make it part of the internal comments and address it in the final version.

MS. MUNN: And Mark, I had said that my concern was that we not overload the client with too

much stuff because that is almost sure to raise as many issues as scaring him to death does.

MR. GRIFFON: Yeah, it just -- it may defeat the purpose, but -- yeah.

MS. MUNN: Yeah, this packet that I'm looking at is in a very nice folder. On the right side is a two-page letter from DHHS and NIOSH to them, and on the left-hand side there is a review of the claims process under the Act -- that's one sheet; a small booklet that's a glossary of terms, another sheet that's a detailed steps in the claims process under the Act, another page of dose reconstruction FAQs, and a sheet entitled "Employment and Cancer History as Reported by the Department of Labor". And is that going to be an individual --

MR. HINNEFELD: Yes.

MS. MUNN: -- thing?

MR. HINNEFELD: Yes.

MR. GRIFFON: Now is this something, Stu, that we can review -- I mean I know that we've sort of said that Proc. 90 is replacing these other procedures for the CATI, but this wouldn't really be part of Proc. 90, would it? This

would all come before --
MR. HINNEFELD: This actually becomes before any of the CATI procedures, yeah.
MR. GRIFFON: Before the CATI stuff, yeah.
MS. MUNN: Oh, and then there's --
MR. GRIFFON: I'm just wondering, not having this in front of me, I -- I think it is probably -- 'cause I think the most important thing that we -- we brought up, anyway -- was the question of -- of being very clear about the efficiency methods and those kind of things 'cause that's created some confusion I think already amongst --
MR. HINNEFELD: Right.
MR. GRIFFON: -- people that have their reports back.
MR. HINNEFELD: Right.
MR. GRIFFON: And that's in this -- this package, is that --
MR. HINNEFELD: Well, we can make it there. Like I said, it's under -- it's in internal comment, and I think --
MR. GRIFFON: Oh, okay.
MR. HINNEFELD: -- that the comments from this -- this finding and from this set of findings

on these procedures, we need to make sure we address, to the extent we can, in this packet.

DR. WADE: Okay, so Stu, are we in a position then to deliver the packet to each member of the working group and then formally to SC&A?

MR. HINNEFELD: Well, this part of our work is not really under my control particularly. It's communications team's work, and so I hate to commit to those sorts of things.

DR. WADE: Okay, so I'll take on that task of -- of discussing it with the communications team and unless you hear from me otherwise I would expect that we would share this with the working group as well as with SC&A and accept comment back from those folks.

MS. MUNN: There really is a lot of stuff there.

MR. GRIFFON: Yeah.

MS. MUNN: And in addition to what I just enumerated, Mark, there's also an envelope that contains --

MR. HINNEFELD: Well, no, that's -- that's what we're currently doing. The envelope is now.

MS. MUNN: Ah, okay.

MR. HINNEFELD: The --

MS. MUNN: That wasn't clear to me.
MR. HINNEFELD: Yeah, I'm sorry, the envelope is now; the folder is what we hope to do.
MS. MUNN: Is what you propose, okay.
DR. BEHLING: Is the letter that's sent the same whether the individual is the worker himself or a member of the family of the deceased worker? And I think one of the common complaints is that questions might be readily answered if the claimant was the worker, but certainly more difficult if the individual is a survivor where many of that -- much of that information simply is not available to that individual.
MR. HINNEFELD: The questionnaire is different. I don't know off-hand if the cover letter is or not -- meaning the CATI --
DR. BEHLING: Yes.
MR. HINNEFELD: -- the CATI questionnaire is different.
DR. NETON: Not substantively, though. I mean it's the same line of questioning, just sort of in the third person almost I think --
MR. HINNEFELD: Yeah.
MS. MUNN: Still trying to get to the same

information.

DR. NETON: The idea there is that you really can't a priori know the level or anticipate the level of detail that the survivor would be aware of. I mean, you know, coworkers or something.

MS. MUNN: Yeah.

MR. HINNEFELD: It's also a fact I think that if you have a -- if you have a survivor claimant, there is going to be less knowledge about the work environment, and nothing we can do is going to change that.

DR. NETON: I understand that, but you know, you can't tailor the survey to that person --

MR. HINNEFELD: Oh, no, I understand --

DR. NETON: -- you need to afford them the opportunity to answer all the detailed questions they want. I think the communication piece is that we don't expect that you're going to know all this information, but in case you do, you know, we're asking these --

MS. MUNN: Yeah.

DR. NETON: -- and you might -- your claim won't be prejudiced by not knowing (unintelligible).

MS. MUNN: Yeah.
MR. HINNEFELD: My comment was really more addressed to other comments that are coming later on in this -- in the procedure review about the process. In fact, it's the next comment if we're ready to move on to the next comment.
DR. WADE: Okay, so the action item on this comment will be I'll discuss with the appropriate people the possibility of getting this folder to the working group and SC&A for comment.
MS. MUNN: Thank you, Lew.
MR. PRESLEY: Good morning, this is Bob Presley.
MS. MUNN: Well, good morning, Mr. No-back, how are you?
MR. PRESLEY: Well, I'm here.
MS. MUNN: Well, sorry to hear you're ailing.
MR. PRESLEY: Yeah, well, I am, too.
DR. WADE: Why don't we identify ourselves involved in the call for Mr. Presley's benefit. This is Lew Wade with NIOSH.
MR. HINNEFELD: Stu Hinnefeld with NIOSH.
MR. ALLEN: Dave Allen with NIOSH.

MR. TOMES: Tom Tomes with NIOSH.
MS. MUNN: Wanda's here.
MR. PRESLEY: Okay.
DR. NETON: Jim Neton, NIOSH.
MS. ROBERTSON-DEMERS: Kathy DeMers, SC&A.
MS. BEHLING: Kathy Behling, SC&A.
DR. BEHLING: Hans Behling, SC&A.
DR. WADE: And on the phone line we have?
MR. GRIFFON: Mark Griffon with the Board.
MR. GIBSON: Mike --
MR. PRESLEY: Morning, Mark.
MR. GIBSON: Mike Gibson with the Board.
MR. PRESLEY: Good morning, Mike.
MR. GIBSON: Hi, Bob.
DR. MAURO: John Mauro, SC&A.
DR. WADE: Is Jeff still with us?
MR. KOTSCH: Yeah, I'm still here, I'm sorry.
MR. PRESLEY: Okay.
DR. WADE: Okay, so that's us, Robert. We're -- we're just starting with the inter-- with the review procedures and we started, if you have your paper in front of you, on page 27 with the interview process documents and that finding. And the summary of that discussion is that NIOSH is contemplating a different

communications package and I'm going to work with NIOSH to share that package with the working group and SC&A, and NIOSH willingly accept their comments.

MR. PRESLEY: Okay.

MR. GRIFFON: So if we were -- and I -- I apologize 'cause I went off the call for a few minutes there. We were looking at Proc. 4 dash -- finding -- finding number Proc. 4-01?

MR. HINNEFELD: Yes.

MS. MUNN: Uh-huh, yes.

MR. GRIFFON: And so their response right now is that some of that language has been moved from the -- moved and is now going to be addressed in this new package that Stu's talking about. Right?

MR. HINNEFELD: Well, kind of. I don't know that there's a lot of language in the existing CATI letter that's going to be moved to the acknowledgement letter. I mean we've always sent an acknowledgement letter. The fact -- what we're saying is that the acknowledgement letter -- information provided with the acknowledgement letter will be expanded to hope-- to achieve some of this discussion about

providing better information to the claimant. And we've got -- you know, doing it at the acknowledgement part is what we -- where we felt like it would be a better part to do it, the acknowledgement letter.

MR. GRIFFON: Oh, okay, I'm looking on down in the response, it says --

MR. HINNEFELD: Now we did --

MR. GRIFFON: -- the overriding message is that these passage --

MR. HINNEFELD: Right.

MR. GRIFFON: -- place undue stress on the claimant --

MR. HINNEFELD: With respect to --

MR. GRIFFON: -- and they were deleted. Right?

MR. HINNEFELD: That -- that language has been deleted from --

MR. GRIFFON: Okay.

MR. HINNEFELD: -- from the CATI letter -- it's actually an attachment to the CATI letter -- and it's been substituted with other language, which is significantly less coercive, in my mind.

MR. GRIFFON: Okay.

MS. MUNN: Apparently that was done a long time ago, Mark.

MR. HINNEFELD: Yeah, that was done quite some time ago.

MR. GRIFFON: Yeah, but -- but after I guess SC&A was reviewing a prior version. Correct? A version before that?

MR. HINNEFELD: Yes.

MR. GRIFFON: So I guess two -- two questions, do we need to review the updated version of the CATI letter, and also this acknowledgement package?

MR. HINNEFELD: Well, Lew said that the acknowledgement packet will go out to -- he can get it sent out to the members. I'm trying to recall if I've got the new attachment with me or not. I don't think I do. It's -- or I don't know if I quoted it in here or not.

DR. WADE: We'll package it all up and send it out.

MR. GRIFFON: But then the second part is that this -- this -- what -- what we originally reviewed -- what SC&A reviewed has been modified, but we haven't reviewed the modification.

MR. HINNEFELD: Yeah, that's -- we'll -- I can send that. I didn't think I -- I don't think I brought it today, unfortunately.

MR. GRIFFON: I think that probably is our -- is a follow-up action on this.

MS. MUNN: Yeah.

DR. WADE: Correct.

MS. MUNN: Lew's going to handle that for us.

MR. GRIFFON: Okay.

MR. HINNEFELD: Okay. I think we're now maybe ready for finding number two on Proc. 04 --

MS. MUNN: Uh-huh.

MR. HINNEFELD: -- which is letter lacking in essential content, especially for family member claimants. And I guess that we think that trying to -- I guess we think that it's appropriate. You know, the amount of information provided or at least that will be provided with the acknowledgement letter is -- is appropriate. I don't think we can remedy the disparity of knowledge in a meaningful fashion -- you know, the disparity of knowledge between a claimant survivor and an energy -- an EE surv-- an EE claimant, so I don't know that we can remedy that. I don't think there's

anything we can do that can remedy that. We -- as a general rule, at CATI time we don't necessarily try to inform the claimant all that much. We try to get the claimant to tell us what the claimant knows based on -- you know, about -- that would affect their work environment or aspects of their work environment, and we don't necessarily take it upon ourselves to try to inform them. That's what we've done.

MS. MUNN: And this enhanced packet that we have will have -- obviously contains in it, as -- as I -- as it exists now in the draft form, all of the information that we have with respect to medical background for the claimant anyway.

MR. HINNEFELD: Right, it contains some specific stuff. It will not -- it will not provide things like this is what we know about the Y-12 plant so that you can understand more about where your husband --

MS. MUNN: No.

MR. HINNEFELD: -- worked and stuff like that.

MS. MUNN: No.

MR. HINNEFELD: It's not going to do that.

MS. MUNN: Well --
MR. HINNEFELD: And -- and we don't --
MS. MUNN: -- it shouldn't, really.
MR. HINNEFELD: -- our position is we don't feel that that is what we're trying to accomplish on these interviews.
MS. MUNN: Agreed.
DR. BEHLING: Is there ever a time when the claimant has some understanding about the natural incidence of cancer that gives him some sense of perspective that radiation is clearly not the only -- in fact not even the most dominant cause of cancer? I think sometimes people are under the impression that radiation is the principal, if not the exclusive, cause of human cancer. And I think it would help them to understand that cancer is a very ubiquitous disease that affects all members of the population.
MR. HINNEFELD: I don't know that any of our communication material does that.
MS. MUNN: And that's -- that has been one of my concerns from the outset of this entire program, is that lacking basic information about what the general population can expect in

terms of these kinds of diseases, claimants are naturally constrained to move to the assumption that they would not have been subjected to this kind of physical insult had it not been for the occupation that they had chosen. And that's -- it seems un-- has always seemed unrealistic to me, and I know some of the Board members do object to any reference to -- to the kind of basic information that is available to anybody anywhere who wants to bother to -- to look at it. But that seems to me to be a very helpful thing. I'm not sure exactly how that should be presented, but it seems inappropriate for us to be telling all of these individuals -- trying to communicate all of these individuals with respect to their specific situation without giving them any acknowledged background of what the circumstances are epidemiologically throughout the entire United States. That just seems -- seems that we're missing something somehow by not doing that, and it's very clear from listening to public comments that we hear that this is not understood by the claimants. It's clear, they keep telling us over and over again -- Mama would not have had any problem at

all if she hadn't been a secretary for three months and walked through that dreadful miasma that caused her to have breast cancer. And that just -- we all know that that is so unlikely that it's -- it borders on being ridiculous for us to consider it, and yet it -- the misunderstanding is, in my view, not going to be cleared up if we don't try to do something about it. And this is a topic we probably need to address in full Board since there clearly is a disagreement on the Board as to whether or not established epidemiological information should be made (unintelligible) -- you know --

DR. BEHLING: And one of those would be the National Cancer Institute that issues a complete report every year, available to the members of the public, and of course with the likelihood that people will view that as an independent source of information, it certainly won't be construed as a biased piece of information. And I get -- every year I get my updated version of what the National Cancer Institute issues, and it gives some very beautiful statistics, graphs, tables, that

would certainly provide some information to people about the ubiquity of cancers, especially with prostate cancers and breast cancers and so many other cancers that are the bulk of the claims that I'm sure NIOSH is processing, and if people understood that -- I don't know how many times I've had people come up to me during these meetings and when I tell them about 30, 40 percent of the natural population that has nothing to do with occupational radiation will have some day -- at some point in their life an issue with cancer, all of a sudden it --

MS. MUNN: They're shocked.

DR. BEHLING: -- it opens up a door for them to understand that maybe radiation wasn't the cause of their cancer, and they will feel certainly a lot more at ease thinking that perhaps -- maybe my prostate cancer has nothing to do with occupational radiation.

MS. MUNN: Yeah.

DR. MAURO: Wanda, this is John Mauro. I'd like to jump in with a perspective, also, on this matter. Notwithstanding the kinds of information that might go into the letters and

written communication, one of my concerns has always been something that I refer to as bedside manner. I think even if you include this kind of information in a letter, it's too cold.

MS. MUNN: Yeah --

DR. MAURO: Right now I think the interaction -- personal interaction comes through the CATI interview, and if we want to relieve some of the anxiety on the part of the claimants and their spouses, it seems to me as early as possible -- this may not be feasible -- opening up one-on-one dialogues with the individuals, it's that type of bedside manner that I think creates confidence and comfort, and not, you know, letters coming from bureaucracy regarding matters of the kinds we're talking about right now.

MR. PRESLEY: This is Bob Presley. I agree with Wanda and I agree with John. I hate to say it, but we are almost too late on this. This is something that we should have started a long time ago. I'm afraid that the public is going to think that -- well, y'all are trying to cover up something now -- when we start

doing this, so you're going to have to really be careful the way you present it.

MS. MUNN: True.

DR. WADE: Any more discussion on this topic?

MR. GRIFFON: Yeah, that -- and I agree with -- I agree with the entire discussion. I mean I think one of the problems we've had is setting up -- I think we've set up for some people false expectations by -- somewhere they're getting the message that, you know, I fil-- if I just file, I can get this money. And in fact, you know, like -- like you've indicated, some of these prostate cancers, somewhere the message should get through that it's probably highly unlikely, you know, it's -- you can still file, but it's highly unlikely that some of these cancers will be compensable, you know, just because they're non-radiogenic and they're very common amongst the general population, et cetera. But I agree with all the discussion so far. I'm just -- how we communicate that is very important, too, yeah.

MS. MUNN: Well, this is Wanda again. My primary concern is that we have been, in my view, misleading claimants with respect to what

the possible genesis of their disease might be by -- in our attempt to be claimant-favorable, and I, to a large degree, blame the Board for having made that -- made such a strong statement in that regard early on and having, in my view, sort of pushed NIOSH into -- to looking at maximizing doses in almost -- in far too many cases. So you're right, Bob, I think we may be almost too late on this. But at some juncture I think we ought to try to clean up our act a little bit if we possibly can and this is likely to be a fairly rancorous discussion in open Board, but I do think it's time for us to do that.

MR. PRESLEY: After -- after listening to some of the comments in Oak Ridge and the times past in other places, I agree 100 percent. But boy, we've really got to be careful how we present this.

MS. MUNN: Yeah, I -- and I am -- am concerned about the rancor and language that may occur during our -- our Board comment, but I think we're going to have to do it.

MR. GIBSON: This is --

MR. GRIFFON: Yeah, go ahead.

MR. GIBSON: This is Mike Gibson. I -- I kind of agree with what -- everything said, especially what Bob said. I think we're going to have to be very careful at this point. I mean I don't like sitting there getting beat up by the public, although I understand their -- and I empathize with their problems they've had with their relatives and et cetera, but you know, I think we also have to look at when we go beyond our scope. Our scope is -- is an Advisory Board to NIOSH, not necessarily to educate the public. So --

MS. MUNN: Uh-huh.

MR. GIBSON: -- you know, it's -- it's a really fine line in my opinion, so -- but I do agree that I think the Board really needs to discuss it in whole.

DR. WADE: Is there any more comment on this particular topic?

What I would suggest -- obviously this is an issue of great sensitivity. What I would suggest is we capture this discussion by highlighting the transcript and sharing it with the Board and then, at the working group Chair's discretion, we could have a discussion

with the full Board on this topic. Again, this is an Advisory Board. The final decisions rest with the Secretary. But I'm sure the Secretary would appreciate Board comment on this issue if the Board would wish to comment.

Okay, we can move on to the next -- and I'll make sure that this part of the transcript is highlighted and made available to the Board before the next face-to-face Board meeting.

MR. HINNEFELD: Okay, I think findings two, three and four for Procedure No. 4 have kind of a similar genesis, and that has to do with the letter to the family members -- or letter to -- finding about survivor claimants and the disadvantage that survivor claimants are at with respect to providing information about the workplace. One has to do with the letter, another has to do with the procedural guidance that's given to the interviewers, and then the third has to do with the request for the telephone interview. So -- but it all -- to us, the way I read it, all seems to hit kind of at the same fact is that the survivor claimants are not prepped -- they're provided additional information in order to assist them through the

process. And -- and again, like I said, we feel like -- you know, we're trying to let them provide what they can provide to us. You know, we have gained -- you know, we've learned a lot about the work-- the workplaces -- the various workplaces from our research. We don't necessarily view this as an approach to give the claimant, you know, what we've learned about their work site and then to let them cast their work experience in the context of that because we feel like we can provide -- you know, we can place their -- their knowledge of the workplace into the context of the site based on what we know. So we hadn't envisioned this as being a part of the claimant interview process; that is, to provide them more understanding about their husband's or parent's workplace, thinking that that may in fact elicit more response. I don't know if it will or not, but we have not viewed that as part of the -- part of our obligation.

MS. ROBERTSON-DEMERS: This is Kathy DeMers. I've got a couple of comments. First of all, in -- in addressing some of these, we need to look at the packet.

MR. HINNEFELD: Okay.
MS. ROBERTSON-DEMERS: And the slight differences in the two letters that are sent --
MR. GRIFFON: Kathy, could you speak up just a little --
MR. PRESLEY: Yeah, please.
MR. GRIFFON: -- into --
MS. ROBERTSON-DEMERS: Okay, I'll yell.
MR. HINNEFELD: She's blocking the mike there.
DR. NETON: (Unintelligible) good sound-absorbing material.
MS. ROBERTSON-DEMERS: Can you hear?
MR. PRESLEY: That's a little bit better.
MR. GRIFFON: Little better, yeah.
MS. ROBERTSON-DEMERS: Okay. I was just saying that we need to review the packet and both letters that are sent out, the one to the survivors and the one to the claimants. I kind of wanted to make some comments with making the interview process more equal. As we're sitting here talking, it occurs to me that one of the ways that you can prep individuals for the interview process is to address it in the worker outreach commit-- meetings that are held.

Another way that I've seen that makes the interview process equate better is if the interviewees have an advocate. A good example would be at Mallinckrodt where Denise Brock has gone through and pulled together information and provided it to the claimants and prepped them prior to their interview process. It makes them feel more at ease and you may get more detailed information with respect to that. With regard to incidents, this is -- this is kind of a real sticking point because even if they have an advocate if there is not a list of incidents or if there was not something unforeseen that happened, like maybe the Energy employee came home in different clothes, the survivor -- even an advocate like Denise Brock would not be aware of that. This is why it's so important for NIOSH to have a list of the incidents that occurred at the site and to be communicating these to the dose reconstructor. It is very evident that with the survivor claims you're getting a lot of I don't know, I don't know, I don't know. And with somebody helping them out, they're actually answering the questions. I also notice that more people

from the survivor side are declining the interview.

It looks as though the individuals from the DOE complex are doing a little bit better at answering the questions, even the survivors, than from the AWE sites where the exposure's just become public within the last couple of years, and that's probably attributed to the fact that they have people around that they can ask questions to.

But these -- these are just kind of some ideas that I think would make the process easier, and someone needs to be available that's a little bit familiar with the site to help survivors out, and this might be one way of equating the survivor interviews with the Energy employee interviews -- or making it at least more fair.

MS. MUNN: Yeah, Kathy, this is Wanda. My guess would be that you will continue to see a large discrepancy between the information from the AWE employees and from the DOE employees. Whether or not -- one could -- one could always argue whether or not DOE procedures were adequate in all cases, but at least they did have established procedures and they were

documented, and they did badge employees. And a lot of the earlier employers, prior to that time, may not -- appear to not have had an extensive formulated program the way many of the -- most of the major DOE sites did. So that alone could account for some of the difference in -- in how the employees respond to things. Most of the DOE sites -- it's my understanding, even in the early days -- did have formal instructions, safety instructions and -- that went along with the badging activities for the -- for the folks who worked there, which may not have been true of all the AWEs.

MS. ROBERTSON-DEMERS: This is Kathy DeMers. Actually the very strongest advocates who have been interviewed as a part of our review are from AWE sites, and there -- they really do have a calming effect on the survivors.

MS. MUNN: Sure, they need to.

MS. ROBERTSON-DEMERS: And actually there is some differences as you look at DOE site to DOE site. Some of them are better represented than others. But I think that the interview process would be more productive if you could address

this issue in the worker outreach committee and at least make them aware of -- the survivors aware of individuals who are knowledgeable about the site and allow them to contact these people, or allow that person to be involved in the interview process.

DR. WADE: Thank you, Kathy.

MR. GRIFFON: This is Mark Griffon.

DR. WADE: We appreciate that info.

MR. GRIFFON: I just -- I just had a couple of comments on this -- I mean I'm not -- not sure where -- what -- what exact finding this would be related to, but I think, you know, one of the concerns from the beginning is what was the -- what was the intent of this interview. You know, there's a couple thoughts that I had from the beginning of this process, that not only could the interview be useful for the individual claimant, but also possibly it could be used in aggregate for certain sites. You know, if they looked at all the Hanford interviews in aggregate, there might be something that -- that could come out of that, pending the design of the interview. And I think that was an early dispute that we had

with NIOSH that we ended up sticking with what we had. But I think -- you know, I'm just wondering, I'm not sure that we can do much about it now 'cause I think a lot of people have already been through the process, but it -- in -- in the response to Proc. 4 No. 3, you know, the -- the phrase, (reading) the telephone interview process is used to give each and every claimant an opportunity to provide their input into the dose reconstruction process, that -- that -- I think that says, to me, that this is a passive process. And I understand that there's this fine line between you don't want to coach, you know -- I don't think you should coach on an interview and I -- that -- that may even be a problem with advocates 'cause if you have the same advocate for 40 or 50 interviews, you tend to get the same responses. But also I don't think that this interview gave much opportunity for pulling information out of these interviewees -- and not -- not so much the survivors, but the -- the claimants themselves that -- the former workers themselves. I think if the interview was designed differently it

could have -- and maybe conducted differently, it could have been designed to trigger memories and to pull out information. And that's been my criticism from the beginning is that a lot of times it's -- it's important to have site-specific knowledge in order to trigger these memories so that you are talking the talk, you know the certain names of -- of -- trade names that were used in place of certain radionuclides or -- or certain building numbers and names that -- that would trigger memories, and I don't think that really happened in this process. So again, I think we're -- we're probably too far along with all these interviews that have been conducted to do much about that, but I just wanted to -- to get that out there.

MR. PRESLEY: This is Bob Presley. I agree with Mark. I remember three or four years ago when we first started this thing and we were in Cincinnati and we actually set down as a working group one day and listened to a -- an interview being conducted, and I think that was one of the comments was, you know, is there any way that the interviewer could get more

information about what he's talking about. If I remember correctly, that's something that we had a concern about early on.

MS. ROBERTSON-DEMERS: Well, I would agree that you would have to keep a collection of comments from the interviews and consider that in the dose reconstruction process.

MS. MUNN: This is Wanda. My knee-jerk reaction is that it would be pretty hard to train interviewers in the specifics of a site. I guess -- especially the old, old ones. Now I certainly understand what you're talking about, Bob and Mark, when you -- when you talk about the terminology and the internal code words that were used by people who clearly were never allowed to speak of what they did elsewhere. It would be really nice if we could -- could tailor each one of our interviews to each individual claimant. But given the number of claimants we have, given the number of interviews that exist, I guess my partially uninformed thought would be it would be almost impossible for us to allow the amount of time that would be necessary to -- to train specific individuals to interview specific other

individuals. That would seem a little too difficult to do.

MR. PRESLEY: This is Bob Presley. That was what our -- I think that was what our thing was early on, that -- that we just could not tailor the -- there were so many sites, that you could not tailor any type of a standard interview to each site.

DR. NETON: Bob, this is Jim Neton. You raise a very good point, and also I think early on the issue was that these scripts need to be cleared by OMB when you interview ten or more people. And to make a specific OMB-approved script for all the various sites would be virtually -- next to impossible.

MR. GRIFFON: That's what kind of created the problem, Jim, I -- yeah, that -- that was --

DR. NETON: I just wanted to remind every-- that -- that was the reason why we couldn't tailor those scripts.

MR. PRESLEY: Right, I remember us going through that.

MR. GRIFFON: But I'm still not clear, Jim, on -- on what -- what -- how much has to be scripted or -- or can the interview -- you

know, for instance, if the interviewer had sort of a cheat-sheet or whatever you want to call it, a long (unintelligible) that could be used to trigger memories, is that considered part of a script or is that -- I just don't know how much --

DR. NETON: Yeah --

MR. GRIFFON: -- how much is -- is considered part of the, quote/unquote, script versus how much can just be something that the interviewer uses during the process.

DR. NETON: It's been my experience that they look at those pretty closely. I mean you can't --

MR. GRIFFON: Yeah.

DR. NETON: -- have open-ended questions that just say tell me about Y-12 --

MS. MUNN: Uh-huh, yeah.

DR. NETON: -- and then have a little cheat-sheet that says, you know, there's all these other acronyms that you might want to know about, but --

DR. WADE: Right, and OMB would -- would not want, you know, large migrations from the questions. It's not something that we can

follow the information given to a different place. I mean you have to be pretty -- you have to stick to the script pretty closely.

DR. NETON: Right, 'cause the whole point of that script review is for the Paperwork Reduction Act and, you know, making efficient use of people's time and not having the government, you know, using a large block of people's times without it being reviewed and that sort of thing. Anyway...

MR. GRIFFON: Can you -- can you, Jim, compare that to the interview proc-- I don't know if you even know this, but in the veterans program when Till presented to us he described some of the interviews that were done there. They seem more like freeform interviews. I don't know if they had to get similar approval for their interviews that were done or if they were just --

DR. NETON: You're talking about the interviews by the Academy in reviewing the program.

MR. GRIFFON: Well, I -- I thought they were looking at notes that were in the case files.

DR. NETON: No, it's my understanding that the DTRA program did not require interviews of

anyone, and in fact that's how we ended up with interviews. One of our first --

MR. GRIFFON: Okay.

DR. NETON: -- questions to them was what would you do differently, and we heard across the board that it would have been nice to establish some rapport with the claimant at the early stages of the process, and that's specifically why we -- one of the reasons we added it -- other than --

MR. GRIFFON: Yeah, 'cause --

DR. NETON: -- the fact we thought it was a good idea, but --

MR. GRIFFON: Well, that's what I'm reflecting on, too, is that one of the -- as I recall, one of the findings in that report was -- by Till's group was that the -- the -- I think these might have been voluntarily provided sort of testimonies on the claimant's part.

DR. NETON: That's possible.

MR. GRIFFON: They wrote up -- some of them wrote up their memory of what they had done, and Till's finding in a few -- in some cases was that the dose reconstructors didn't consider the claimant's intervi-- or the

claimant's testimony --

DR. NETON: Right.

MR. GRIFFON: -- or whatever it was --

DR. NETON: Right.

MR. GRIFFON: -- in doing the DR. They -- they sort of disregarded --

DR. NETON: Yeah.

MR. GRIFFON: And so those -- but those weren't -- everybody didn't get an interview, so to speak, did they --

DR. NETON: Right.

MR. GRIFFON: -- in that process?

DR. NETON: There was no requirement in that program.

MR. GRIFFON: Okay. All right.

DR. NETON: I would say that our interview process does not preclude someone from -- from elaborating. At the end there's a general question that says if you have anything else that we didn't ask, or something to that effect, and -- and to my knowledge, some of these interviews go on for hours. You know, there is no attempt to cut them off and say well, we have to stick to the standard script and you're done. These people do -- do open up

when they feel like it. And again, I don't think we make any attempt to -- to cut them off.

DR. BEHLING: Is there any attempt to somehow or other pacify people in instances -- having audited so many of the dose reconstructions at this point, we have also come across CATI interviews where there's basically nothing but blank spaces -- I don't know, I don't know, I don't know. And I guess the concern here is that at the end of such an interview I'm sure the person who's being interviewed -- in some cases may even be second generation family member who knows nothing at all about the environment of the Energy employee -- and I guess my concern would be that this individual now feels he has completely failed in every respect in providing critical information that may at this point prove to be detrimental to the -- to the adjudication of that claim. I think it would be very important for the interviewer to give some understanding of how this fits into the bigger piece of the dose reconstruction so as not to give the impression that, in the absence of information, this claim

has no chance of being adjudicated in a positive way. Is there any attempt to -- to inform the interviewer that, under those circumstances, he has an obligation to sort of say the information that is being sought is only just one of many sources of information and this is really potentially not going to adversely affect the outcome of the claim so as not to give the impression that you've -- you've -- obviously you're out of the picture entirely?

DR. NETON: I thought that was -- that was the language that was added into the letter was that, you know, you're -- you're asked to interview, but by not participating -- or something to that effect -- it would not adversely affect the outcome. There's some -- some language to that effect in the -- in the modified letter, but it doesn't go much beyond that.

DR. BEHLING: No, it just needs to be stated that the whole dose reconstruction process looks at a wealth of information from records to site profiles where all this information is integrated and the CATI interview is just one

of many sources of information and may be not necessarily the most important one, so as --

MR. GRIFFON: From -- from what I've heard, Hans, my guess is that the interviewer probably does convey that, you know, that even if you don't have a lot of information, you know, don't worry about -- you know, we -- we have other information we're going to use.

MR. ALLEN: Yeah, they've been doing that.

MR. GRIFFON: I think they -- I think they do emphasize that, Jim, if I -- I mean that's my impression, anyway.

MR. ALLEN: I don't think there's any formal process or script or anything, but they've been coached all along that -- you know, to reassure them that we're asking questions to get what information we can, and I don't know is -- is typical or, you know, it happens a lot and don't -- don't worry about it type of thing.

MS. MUNN: It's okay to say I don't know.

MR. ALLEN: Yeah.

MR. GRIFFON: Let me see if I can move on to Proc. 5-01, finding Proc. 5-01. I think we've covered things up to this -- I mean I think we're kind of getting a little off-track. Some

of these things overlap a little bit. As far as I can see for the Proc. 4 findings, most of our actions are going to hinge on reviewing the acknowledgement package that you discussed and reviewing the revised CATI language, the revised CATI form language that some was deleted and replaced by other language. And then I think, if it's okay, maybe we can move on to Proc. 5-01 and pick it up there. Stu, is that okay?

MR. HINNEFELD: Okay.

MS. MUNN: Yeah, you keep us on track.

MR. GRIFFON: I'm trying, I'm trying.

MR. HINNEFELD: The -- for -- comment number one on Proc. 05 says procedure provides no reference to site profile or closing interviews. And see, this is in the conduct, I believe, of the inter-- Proc. 5, I believe, is conduct of the interview. We went through the finding, the body of the finding, and identified several -- several points that were made in the body of the finding and the report, and have kind of -- and have provided responses from that because, based on the summarized finding in the -- in the matrix, we had -- you

know, we felt like there was more -- more text that we could respond to and so we've kind of reproduced either a finding or our understanding of a comment that was made for various things. Those are the numbered -- in italicized bullets -- and then responded there. One of the things that we did point out is we do now have a closeout procedure -- a procedure for closeout interviews and --

(Whereupon, Mr. Elliott joins the group.)

MR. GRIFFON: Proc. 92. Right?

MR. HINNEFELD: Right.

MS. MUNN: Yeah.

MR. HINNEFELD: We do in fact log the interviews, all -- all the conversations with claimants are logged in our NOCTS (unintelligible) log. There's no interview form for the closeout interview because we're just trying to be -- be -- trying to make -- trying to help the claimant understand the dose reconstruction and see -- answer questions they might have with the dose reconstruction and tell them that if they have no more information to provide then the next step in the processing claim is to submit -- sign and submit the OCAS-

1. We ask them not to submit the OCAS-1 until we've addressed, you know, their concerns or at least tried to answer their questions.

Now if we've answered the question and it's not the answer they want and they -- you know, we will still say at that point we can't provide any more -- you know, answer any more explanation than we've provided to you. We would like you to sign the OCAS-1 and send it in. We do get to that point. But we do want to try to answer the questions they have on their dose reconstruction before they sign the OCAS-1 and send it back. That's what the closeout interview's supposed to cover before the OCAS-1 comes back.

We've made some changes since the review of the procedures to try to make health physicists more available for closeouts so they can -- they're more readily available to the interviewer for assistance if need be. And -- so anyway, you can just go on down the list there.

MS. MUNN: So is SCA happy with that? Did that address the concern adequately?

MS. ROBERTSON-DEMERS: I would say that we

would need to review Proc. 92 to make sure that it has all the elements.

MR. PRESLEY: Kathy, this is Bob Presley. Speak up, please.

MS. ROBERTSON-DEMERS: Okay. I have some concerns about the availability of health physicists during the closeout interview. I've heard from numerous people that they've had to go to educated health physicists outside of NIOSH to get explanations of what exactly is being discussed in the -- in the DR provided to the -- to -- to them. And this includes, you know, some fairly educated people, so they're pretty difficult to understand and probably very difficult to communicate.

MS. MUNN: How often did that happen, Kathy, do you know? Is that --

MS. ROBERTSON-DEMERS: The survivors, you know, that I've been in touch with pretty much do not understand at all what is contained in the DR.

MS. MUNN: Well, and -- and I don't think any degree of -- of education that we can provide --

MS. ROBERTSON-DEMERS: Right.

MS. MUNN: -- would likely do that.

MS. ROBERTSON-DEMERS: Well, one of the things that has come up, and this was brought up to me by one of the -- the DOE health physicists -- is when they see that their dose is much, much, much higher than what is on record, they automatically assume the site is not monitoring them adequately. So the maximizing and minimizing dose procedure has to be clarified absolutely, you know --

MR. GRIFFON: Or the communication of it has to be very clear, yeah.

MS. MUNN: Yeah, I guess it's a major concern. I've used this word before and I'll continue to use it because I really feel that's what happens. Too often we mislead survivors and claimants when we use maximized doses, and these folks are -- mistakenly believe that they've received more -- that they might have received more dose than they were recorded as having received. And if -- if we don't have a very clear way of letting them know that they are being given the -- not just given the question of the doubt, but actually being allotted additional exposure that an -- that there's very little probability anyone

received, then we're -- we're misleading them badly.

MR. GRIFFON: Also -- I mean this -- this is a bigger discussion, Wanda, and I'm not sure -- you know, you suggested that the Board drove NIOSH to this. I know I've been -- I've had issues with the efficiency process since the beginning, and I -- maximizing doses is in no way to be confused with claimant favorability 'cause it's --

MS. MUNN: No.

MR. GRIFFON: -- there's nothing about claimant favorability in this 'cause they're denial claims, you know, so -- but I agree, it's got to be -- 'cause it creates confusion on the tail end with people 'cause they have dose records for all these years when they have almost all zeroes and then they get this very high dose and they -- it creates doubt. And the worst cases that we hear about is when they come back with another primary cancer and then they have a lower dose, and that creates -- you know, and rightly so technically. But you know, from the communications standpoint it's -- it's creating -- creating some problems so I

think we -- you know, we're on the same page here, but...

MS. MUNN: Yeah, and I -- my guess is that we're not going to get a great many of those, but the ones that we do get are going to be highly publicized and will help to increase doubt, I think, in the minds of other people who have been through the process, which isn't -- isn't fair, either. And I'm not sure that we in this working group here today can -- can find a way around this, but it seems to me that we really and truly need to be addressing this straight on before it gets any further --

MR. GRIFFON: Well, except --

MS. MUNN: -- down the road.

MR. GRIFFON: I guess the only thing I would recommend is that, you know, we have an opportunity to review this acknowledgement package and maybe we just might -- you know, when we consider that, we might want to consider having some language in there about this whole efficiency process and what -- you know, so I guess that maybe will be our opportunity to -- in some way to comment on it.

MR. HINNEFELD: This is Stu Hinnefeld. I want

to -- I want to comment on some things that have gone on and continue to go on that relate to this understandability and what communication we make to the claimant. We've -- we have, throughout the time we've been saying dose reconstructions, been adjusting the language in a dose reconstruction in order to try to make it more understandable. When we get feedback about a certain passage or type of language or certain activity, we will then modify sort of the boilerplate language that goes into a dose reconstruction to try to explain that. An example now is that there is a -- a sentence, or a couple of sentences that goes into overestimating claims -- (unintelligible) overestimating claims, that says that this is overestimated for the purposes of efficiency, and if the information changes in the future and the case is redone, quite likely the number will be lower. I mean we -- we're trying to -- so we've done things like that. We have done other adjustments and tweaks to the language that's selected in the dose reconstructions to address items that come up -- you know, lack of understanding, poor

understanding that occurs because of the language in there. So that has been going on all along.

In addition, there has -- you know, early on, the earliest dose reconstructions, there's this comment that boy, these things are hard to read.

MS. MUNN: Uh-huh, yeah.

MR. HINNEFELD: These things really aren't easy to follow. It's been there from the start.

MS. MUNN: Yeah.

MR. HINNEFELD: And so it takes us a while, but we do have now that sort of a draft package of a revised dose reconstruction report that will -- that will have a section that's intended for the claimant. The problem with the current dose reconstruction is there's nothing in there that is intended to be readable by the claimant.

MS. MUNN: Uh-huh.

MR. HINNEFELD: It's got a whole lot of people it's supposed to be intended to; none of them are the claimant. So this is supposed to have a summary for the claimant that explains things like why is this so much different than your

recorded dose; you know, what monitoring information did we have for you, those -- those things. So -- so they're trying to lay it out in layman's language what we did with what we -- what we knew about their work and what we did with it. And then there will be a back portion for a health physicist reviewer or a health physicist who -- whether it's us or whoever wants to review it, where it will (unintelligible) just these were the decisions we made and how we went about it. And so it'll be much briefer and you don't have to have as much language in the -- in the health physicist part because you would have to know -- you need -- it'll just tell you what selections were made, why choices were made the way they were made. So that's the intent.

MR. ELLIOTT: If I could make a statement here, I'd like to add to what Stu's offered. We take this concern very seriously. We've heard it and I think, as Stu's walked you through, when we've heard it we've taken steps to address the issues that were raised in those concerns. And I don't think we're there yet. I think we're working hard to get there. I'm anxious to see

us get this -- this draft, claimant audience included, report out and in -- in use. It takes us a while to do that. It's my hope that we will reach a broader audience through this, and I'm certain that we will. So -- and we're glad to work with the Board in making that happen. I expect we will bring it all to the Board so that you can see what we're proposing to do. So just to let you know, we're working on this in concert.

MS. MUNN: That was Larry, y'all. He's joined --

DR. WADE: Yeah, for the record --

MS. MUNN: -- us here at the table.

DR. WADE: For the record, Larry joined the table just before Stu made his last comment. Larry came to the table so Larry's with us now.

MS. ROBERTSON-DEMERS: This is Kathy DeMers. I guess we would like to see the Proc. 92. We would like to see this revised dose reconstruction language, and I think we probably would get a better idea of what's going on if we could sit in on some closeout interviews.

MR. HINNEFELD: Will that have to be tasked

from the Board? Will that have to be tasked from the Board, Proc. 92? I mean SC&A was --

MR. GRIFFON: Oh, Proc. 92, I -- I had actually written down and I did write down this -- this revised DR report, Stu, I think in part that was one of the things we said from the first 20 cases --

MR. HINNEFELD: Right.

MR. GRIFFON: -- and so as a follow-up action I think we -- you know, we -- you -- you said at that time you were modifying --

MR. HINNEFELD: Right.

MR. GRIFFON: -- the boilerplate language, and I think as a follow-up we would -- we would, you know, want to look at that language --

MR. HINNEFELD: Okay.

MR. GRIFFON: -- which it sounds like you've made, you know, good strides on that. I'm not sure about -- you know, I -- I was going to ask SC&A whether these set of seven items listed -- I think many of them -- we've sort of got a follow-up action here now, but I'm wondering about the -- the questions about the health physicists and -- and number seven, I think --

DR. WADE: Just -- this is Lew Wade, just --

MR. GRIFFON: -- whether they've been adequately -- you know, whether SC&A is comfortable with the NIOSH response here.

MS. MUNN: Yeah, that was my question earlier.

MR. GRIFFON: Yeah.

MS. ROBERTSON-DEMERS: Well, I guess -- sorry, (unintelligible).

MS. MUNN: No -- no, and I think Kathy's saying they don't want to commit to that until they've seen Proc. 92's revision.

MS. ROBERTSON-DEMERS: Yeah, and that's why, you know, I'm kind of recommending that we might sit in on some of these -- on a couple of closeout interviews because it would give us a better familiarity with what's being communicated to the claimant.

DR. WADE: Just to deal with the official communications between the Board, NIOSH and the contractor, my -- if my understanding serves me, at the last Board meeting we took the action of adding Proc. 90 to the list of procedures to be reviewed. I don't believe the Board has acted on Proc. 92.

MR. GRIFFON: Right, we haven't.

MS. MUNN: I didn't remember it.

DR. WADE: Okay, but -- but you know, this -- the working group can certainly bring that to the Board --

MR. GRIFFON: Bring that forward, yeah.

DR. WADE: -- at the next call and we can deal with that, but Proc. 90 has been added --

MS. BEHLING: Yes, it has.

DR. WADE: -- but not Proc. 92 --

MR. GRIFFON: Right.

DR. WADE: -- so you need to keep your marginal notes, and if that's a recommendation of the working group to the Board, it needs -- it would require a full Board action -- as would this suggestion of sitting in on interviews. I think this is something --

MR. GRIFFON: Sure.

DR. WADE: -- that the Board would need to consider and decide on its -- its recommendation.

MS. MUNN: I personally am a little concerned about the privacy issues with that one.

MR. ELLIOTT: Did you sit in on --

MS. MUNN: Right.

MR. ELLIOTT: -- the interviews, the CATIs that are done to develop work histories? Did SC&A

sit in on any of those? Some Board members did.

MS. ROBERTSON-DEMERS: It would be nice to sit in on both ends and see how they tie together.

MR. ELLIOTT: So you did sit in on the CATIs?

MS. MUNN: I don't think so --

MR. HINNEFELD: I don't know that --

MS. MUNN: -- no.

MR. HINNEFELD: -- I don't think (unintelligible) be interviewed --

MS. MUNN: Part of the Board did, but the contractors did not. We were really concerned about privacy issues and having third parties sit in on any of these --

MS. ROBERTSON-DEMERS: And of course --

MS. MUNN: -- interviews.

MS. ROBERTSON-DEMERS: -- it would -- it would have to be okayed by the person being interviewed or...

DR. WADE: Well, the working group can -- can think about this and bring a recommendation to the Board.

DR. BEHLING: Well, what was the difference between us sitting in versus me reading the CATI report when it's sent to me as part of the

audit? I mean that has certainly privacy information in the CATI report, so I see no reason why it can't be expanded to actually sit in on the interview itself.

MR. ELLIOTT: It -- it was advised, with regard to your sitting in on CATIs, that it would perhaps chill the collection of information.

MS. MUNN: I think we actually had a legal finding on that, too.

MR. PRESLEY: Yeah --

MR. GRIFFON: I think that --

MR. PRESLEY: -- I remember, we did.

MR. GRIFFON: -- there are consent issues, though, aren't there? I mean --

MR. PRESLEY: Yes.

MR. GRIFFON: Yeah. But we -- we can -- we can look into that. I mean I think actually Proc. 92 should probably come before -- well, I don't know, you know, but -- it may be that we want to look at Proc. 92 first and then consider sitting in on some of those, given that they're using a new procedure and we haven't looked at the new procedure.

MS. MUNN: I would suggest that we add Proc. 92 to our agenda for the next Board call.

MR. GRIFFON: Yeah, I agree with that.

DR. BEHLING: Can I make just a comment regarding the issue of the dose reconstruction report and the clarity, or lack of clarity, having again looked at so many of the audits now. It's a challenge for any health physicist to decipher what's in those reports. And clearly I think one of the most challenging aspects of the report is the IREP input data. I mean I can't imagine a lay person looking at those datasheets and saying what does this mean? A lognormal distribution with a geometric standard deviation means nothing -- they don't even know what goes with what area. You get, in some instance, up to 400 dose entries and you don't know where the medical occupational starts and the actual recorded dose starts, et cetera. And one of the things that Kathy and I have discussed about the potential for a beneficial introduction of information to the claimant would be to introduce a table that we have introduced in our audit report that says okay, here's your recorded photon dose, here's your missed photon dose, recorded neutron, missed neutron,

occupational medical, on-site ambient, et cetera, et cetera. And then give you, as a minimum, the -- the entries that correspond to those particular segments. If they never look at that, that's fine, too. But they can instantly look at that, and that would also benefit the QA internal process -- and we'll talk about it probably later on, touch on that very subject again. But you can instantly look down and say oh, my God, yeah, that's right; I only got something like two rem of lifetime reported photon dose, but look at this, they gave me a hypothetical internal dose of 16 rem. And they would instantly recognize, in terms of magnitude, what those numbers and the total dose really represent and -- and get to some understanding as to how much is real, how much is simply added there for the sake of maximized efficiency, et cetera, et cetera. But that table would prove to be invaluable for a claimant who has no way of understanding the IREP datasheet.

MS. MUNN: This is Wanda. I would submit it would be extremely important for us to choose the terminology appropriately if we were to

undertake such a list of what's been done. And I agree, I think it would be enormously helpful for the five percent of the population that had any idea what a photon dose was, or who have any idea what the difference in a photon dose and a neutron dose was. But -- but even if they didn't know, understanding the difference between what they actually were recorded to have and what they were then assumed later could have had is -- is a good thing to do. But I would also caution that this now brings up one of the fine points that the technical people go back and forth with with respect to "and how good is the measured dose to begin with, and what is our correction factor that we use there, and why do we use that correction factor, and was the film badge really adequate"? You know, we can understand -- the people sitting around this table understand what that means. The claimant doesn't understand what that means. All that means to many people -- who are heartbroken over having lost someone that they care about -- is "you see, the information that they gave us wasn't even good to begin with". I -- and so my

warning would be, if we're going to do something like that -- and I have no objection to it, I think it's a good thing, but -- at least to consider because I think people ought to know the difference between what they actually received and what they were essentially given by this program. But please, if we're going to consider that, language -- the terminology that's used to identify what that gift of additional dose rate is is very important, in my mind.

MS. BEHLING: In fact what we do in our report that goes to the Board, which I think does help, is simply -- something as simple as putting in bold and highlighting the fact that this is an overestimate of this dose. And if you're now introducing that into the letter that goes to the claimant, I think that would be very helpful. But definitely make that a strong point and explain what that means to the best of your (unintelligible) --

MR. GRIFFON: Yeah, I think we definitely need to follow up on -- on the DR report -- the new boilerplate DR report language that Stu described. I think some of these questions may

be addressed in there. It sounds like they've been trying to address those, so --

MS. BEHLING: Yes.

MR. GRIFFON: I think, if it's okay, can we move on to Proc. 5-02?

MR. HINNEFELD: Yeah, Proc. 5-02 says there's no procedural requirement for coworker interview or explanation if coworker is not interviewed. And I guess the issue here is kind of a timing issue, it's that we don't know if we're going to have to talk to coworkers until we assemble all the information package for the claim. And then the dose reconstructor gets the assembled information and decides do we need to talk to the coworker. So the interviewer -- at the time of the CATI interview -- the CATI interview is part of the information that you gather, part of the information that's assembled to do the dose reconstruction. So at the time of the CATI interview there's really no way to know if you're going to talk to the interview -- interview -- into -- the coworkers or not. There is a statement in the script that says we may or may not talk to the coworkers. You

know, there's no -- so it kind of doesn't imply a promise, but maybe it does -- it doesn't go out and overtly imply one. Maybe people would assume that they're -- we're going to talk to them since we asked for them. So there's no way to know at that time whether the coworkers are going to be talked to or not because we won't know at the time of the interview whether we're going to have to talk to the coworkers. So we have in fact included language -- and I think -- I don't think this is actually going to wait -- the new modify -- you know, the simplified dose reconstruction. This is just another boilerplate change that we make periodically, you know, text language -- text change that we make periodically where we intend to put in the sentence that if we didn't talk to the coworker -- it's just a sentence to the effect that coworkers were not consulted because sufficient information was available from other sources, so at the time of that the claimant will know whether we talked to the coworkers.

DR. BEHLING: Or there was no conflict. I think a trigger should be put in -- let's

assume that the CATI interview takes place before anything that's really assembled in the way of DOE records, and there's no need to worry about, but perhaps request coworker data or information so that when you finally look at the CATI report and you have your DOE records and you look and say well, he says he was monitored internally by bioassay, and all of a sudden you look through the records and there are no bioassay records. At that point I think it would be wise to -- to trigger an inquiry that says well, is this an issue of missing records or is this an issue of a person's failed memory, but a resolution process should be there when you sense that the records and CATI interview data are not consistent, or he says he was badged but there are no dosimetry records; he says he was monitored internally with urine bioassays but there are no records. I think there should be a trigger that says well, now that we have gotten the DOE records and we review the CATI interview sheets and realize that he says this and the record shows something different, that that would trigger someone to say let's go talk to coworkers and

see if in fact there was any reason for us to assume that either it's a case of missing records or the person's memory is not quite what it should be.

MR. HINNEFELD: Well, I think that --

MS. BEHLING: I would -- oh, I'm sorry, go --

MR. HINNEFELD: -- there's another aspect of that is that will what we learn change anything?

MS. MUNN: Uh-huh, yeah.

MR. HINNEFELD: For instance, if you're getting ready to do dose reconstruction and someone worked for five or ten years and they said they were monitored with bioassay and you didn't get a bioassay record, and it was -- pick your employment period based on the site -- and this claim was going to be done with an overestimating technique, an overestimating internal intake so the bioassay record's probably not going to -- almost no chance is going to change your mind, you know, we may not request it. We may not go further at that point because what we would learn would not change what we're going to do.

DR. MAURO: Stu, this is John Mauro. What I'm

hearing is that we have a bit of a dilemma because the CATI interview and then the reports that go out and the collection of information that eventually is transmitted to the claimant, it's -- all this material really is trying to serve two purposes. One, as you correctly point out, if you really don't need that information and you don't really need to follow up with coworkers because of an efficiency process, for example, that certainly serves your purposes regarding dose reconstruction and coming to the correct decisions.

On the other hand, it creates a situation where the claimant now is sort of confused. So in a funny sort of way (unintelligible) we have to decide -- or a decision has to be made -- this material that's being provided, is it also being provided not only to document what was done but also to try to explain some of the -- would appear to be contradictory information. For example, as Hans pointed out, if there is this contradiction, the degree -- the degree to which it is appropriate for us or for NIOSH to explain all this to -- in the record for the benefit of the claimant as opposed to for the

benefit of the dose reconstructor.

MR. ELLIOTT: John, this is Larry Elliott. I would reply that -- that it's important for us to know that the purpose of these dose reconstruction reports are to provide reasonable estimates upon which a compensation decision can be adjudicated. And you know, in our -- in our vigor to complete as many of those as we can to help those claimants out, we have I think done them a discourtesy in explaining how we've gone about our work fully. And I'm -- I'm concerned about contradictions, and I think we need to be very knowledgeable of those so we can react to those. And so I appreciate hearing this.

MS. BEHLING: I in fact would -- this is Kathy Behling -- I believe that the interview of the coworker should be done for survivor cases where all of the answers are I don't know. There may be some information out there that a coworker might have that would impact that dose reconstruction, and I would take that interview process a step further by saying for the survivors -- and again, this is sort of helping them to be on an equal playing field -- if

there's -- they just have no information at all and they can provide coworker information or a coworker, I think in that particular case it may be worthwhile to talk to a coworker, just to be sure that we're not missing any information on incidents and so on.

MR. ELLIOTT: Would it be -- have you looked at what the effect of our work has been that's been adjudicated at DOL and how much -- how much of that -- the concern that we've been talking about in this problem of communication and contradictions, how much of that has -- has been raised as issues in the final adjudication of the claim? I mean we've sent out over 12,500 claims now and we -- we look at that through the rework that comes back from the DOL appeal process and, you know, we should look at that. We should examine that and see if -- if that compels us to take -- how far we should take this in balancing our resources 'cause it is resource-intensive to make these additional phone calls.

MS. MUNN: It is.

MR. ELLIOTT: It's resource-intensive, you know, to change boilerplate. But we're

interested in making sure we do a good job of communicating, so maybe we should look at that piece to (unintelligible) --

DR. BEHLING: On one hand, however, I think we need to -- and Stu said it correctly, if there is a conflict between what's stated in the CATI and -- and what records would indicate and we default to a hypothetical intake of 12 or 28, it's clear that you're going to be giving that individual a much higher dose than what potentially may be missing as part of the records.

On the other hand, if that person now appeals this case -- and you mentioned, Larry, that we're talking about time and costliness, the appeal process will probably take an awful lot of more man hours than a few phone calls would that would pacify the survivor of a claim into realizing they made an effort to contact a coworker and it turns out that the individual's recollection was at fault, that the coworkers who worked right next to a person's father or somebody also wasn't monitored, and that solve the problem -- which might be a much easier approach to resolution than going through an

appeals process.

MR. ELLIOTT: Sure, sure. Quite possible.

MS. ROBERTSON-DEMERS: This is Kathy DeMers. I've kind of got some ideas on this. Could you develop a criteria for conducting coworker interviews? Such as: when you're compensating, why would you need to do a coworker interview; whereas when you're trying to do a best (unintelligible) analysis or you have some questions on the accuracy of what the interviewee has stated, then you could go to a coworker interview.

MR. GRIFFON: Well, I -- this is Mark Griffon. I think what -- some of what I'm hearing -- I mean I had a similar comment before and Hans I think captured it that what are the triggers for a coworker interview, and maybe Proc. 5 has to consider that further. You know, what are the triggers, is it -- and Kathy also captured -- Kathy DeM-- Kathy Behling also captured one thing I was thinking of which is does a survivor automatically trigger a coworker interview. Maybe not, you know. Maybe there's more to it than that. But I think Proc. 5 should consider what triggers a coworker

interview.
As a follow-up to that, I don't know if -- do you keep any statistics on how many coworker interviews you've done actually through this process?
MR. HINNEFELD: I think there've been a fairly limited number of coworker interviews.
MR. GRIFFON: Yeah, 'cau-- is that what -- you know, your statement in your response says coworker interviews are conducted only when they are necessary to complete the DR. And I was just curious at this point how many coworker interviews have -- you know, so I think there's two parts of this. One is a trigger -- what triggers the coworker interview, and then the other part is the communications aspect. And I think that's -- that could be covered in the DR boilerplate language that we discussed earlier, the -- this question, which we've heard comments on, actually, which is -- you know, I gave all these names and -- and you know, NIOSH didn't even bother to contact them or whatever, and even if you -- you know, if you don't, you may have a good reason not for needing to do that,

but it should be communicated in the DR report in some way so that the claimant is comfortable with the process, you know, so I think there's two parts to this, what -- you know, what would trigger and -- and then -- and if there -- you know, that -- that issue that Hans raised on the, you know, potential discrepancies, and that might be one trigger, and then the communications aspect.

MS. MUNN: Mark, what action are you suggesting here?

MR. GRIFFON: I'm suggesting that -- that -- that Proc. 5 needs to include something on -- on triggers for coworker interviews -- language on triggers for coworker interviews.

MS. MUNN: Okay, so you're asking for a revision that identifies that.

MR. GRIFFON: That -- that's what I'm ask-- that's what I think, yeah. And then the other part I think is covered in our earlier action, which is to review the DR boilerplate language. I think that would be covered in there.

MS. MUNN: I have one question for Larry and Jim. What's your sense of -- I gathered from what you said you hadn't actually been keeping

records on it, and I can see why, but what's your sense of -- of the level of rework that you're getting back from DOL?

MR. ELLIOTT: Well, we get -- of course we get rework back from DOL where an Energy employee has acquired another cancer that was not in the original --

MS. MUNN: Oh, yeah, yeah, but I'm --

MR. ELLIOTT: -- dose reconstruction. You need --

MS. MUNN: -- I'm not -- yeah, that's not --

MR. ELLIOTT: -- to understand that. We get it back for additional employment that we may have helped identify, or that has been identified by the claimant, so those are two things that, you know, probably -- you just need to know they're there, but those are not --

MS. MUNN: Yeah. Yeah, that's --

MR. ELLIOTT: -- the one at issue here. The one at issue is technical remands --

MS. MUNN: Right.

MR. ELLIOTT: -- and perhaps Stu or Jim can talk better about the variety and extent, but I think our rework -- the total amount of rework we're seeing from DOL's in the eight percent

range, eight to ten percent, fluctuates.

MS. MUNN: Oh, then probably no more than one --

MR. ELLIOTT: And I don't know what the --

MS. MUNN: -- or two percent, right?

MR. ELLIOTT: -- percentages of technical --

MR. HINNEFELD: Almost nothing.

DR. NETON: Almost nothing.

MS. MUNN: Practically nothing.

MR. HINNEFELD: Less -- less than -- I'd say less than ten percent of the rework burden is actually a technical remand. Almost all of the rework we get back from the Department of Labor is either diagnoses and employment that they didn't identify to us originally that were in the case file that they just didn't develop originally, or conditions that have been -- you know, diagnoses have developed since the person first claimed -- filed a claim -- you know, additional cancer diagnoses. The overwhelming --

MS. MUNN: You ought to claim a gold star for that.

MR. HINNEFELD: -- majority of the rework we get back from the Department of Labor --

MS. MUNN: That's good.
MR. HINNEFELD: -- falls in those categories.
MS. MUNN: That's good.
MR. HINNEFELD: I'd say well less than ten percent --
MS. MUNN: Yeah.
MR. HINNEFELD: -- of the rework is some type of remand.
MR. ELLIOTT: We could have DOL present more on that. They would have better -- better understanding. It comes from four district offices. We can't break it down that way.
MS. MUNN: Oh, I'm not sure anybody -- does anybody on the telephone want that? I didn't really want that except just a sense of how large it was. Does anybody want those hard numbers? I don't need it.
MR. GRIFFON: I don't think so at this time.
MS. MUNN: No, I just wanted a sense.
MR. ELLIOTT: If Jeff Kotsch is on the line -- Jeff, I don't know if you -- you see all of these. Can you verify that what Stu's saying is what you see?
MR. KOTSCH: Part of it is that we don't see all the -- well, we see all the rework requests

that come from our district offices, but that is still just a subset of, you know, all the -- the dose reconstructions that are out there. And the other thing is we have specific efforts underway to look at certain kinds of dose reconstructions and so from those you may get more technical comments rather than the normal comments from the district offices, which are -- I mean most of their things that they're identifying have to do with additional employment or changes of employment, changes in medical condition, things like that.

I think what Larry was saying as far as the frequency of the reworks and the levels are probably right. But we don't -- you know, that's just an intuitive sense, I have to admit. I don't -- haven't looked at -- we keep the records, but I haven't really crunched the numbers recently.

MS. MUNN: Well, it's obvious from what I'm hearing that it's not a -- not a truly significant --

DR. NETON: No.

MS. MUNN: -- item, so --

DR. NETON: This is Jim. I think Stu's

correct, it's much less than one percent of the cases completed -- substantially probably less. We don't have the exact number, but that's our sense. And I kind of -- kind of keep track as they come through, and I -- my feeling is that coworker interviews probably would not have influenced the outcome of those cases --

MS. MUNN: Yeah.

DR. NETON: -- even ones that were --

MS. MUNN: Yeah.

DR. NETON: -- had requested rework. They tended to be more typically narrowly-focused issues related to glovebox work or something --

MS. MUNN: Yeah.

DR. NETON: -- of that nature, so...

MR. HINNEFELD: I understand also a coworker interview -- to call someone who's identified as Joe Smith's coworker 20 years ago, it's just as likely as not he doesn't remember Joe Smith.

MS. MUNN: He doesn't remember Joe, yeah.

MR. HINNEFELD: I mean -- bear in mind -- I mean I'm not trying to denigrate coworker interviews.

MS. MUNN: No --

MR. HINNEFELD: I think we have to --

MS. MUNN: No.

MR. HINNEFELD: -- have a realistic understanding that when you ask a coworker or you ask an Energy employee about their workplace, you're asking them the visual things that -- the things that they can observe, the things that they saw, they knew with their senses, and the fact is that the things that you see with your senses are not necessarily the telling factor in your dose reconstruction.

MS. MUNN: Yeah.

DR. NETON: You also have to remember these people may have a -- their statements may have a bearing on the outcome of their coworker's claim, so they may be reluctant to chime in with -- with the facts. And the one or two that I'm aware of -- I sat in on some of these calls and it's -- it's interesting. For instance, a guy in his CATI would claim that he received 5,000 millirem per quarter dose or something of that nature, and he was insistent that this was his exposure. Well, all facts of the issues, his dosimetry and what he did for a living, didn't come close. So we'd call the coworkers and say does this make senses to you

that these fields may have been there or something to that effect, and the person was reluctant to verify but eventually did verify that no, these levels were nowhere near -- near that -- that type of exposure. So you know, they come into play in those very unique type situations.

MS. MUNN: Yeah.

MS. ROBERTSON-DEMERS: This is Kathy DeMers --

MR. GRIFFON: I -- I -- like I said, I think, you know, you should consider maybe in this procedure having some sort of -- of triggers, and I'm not saying -- I agree with Stu that, you know, they -- they're certainly not going to help in all cases, but if you had some sort of guidelines in this procedure of what -- what triggers -- what -- what would potentially trigger a coworker interview, it might be helpful.

MS. ROBERTSON-DEMERS: This is Kathy DeMers. I agree with Mark that we need to develop some triggers, but I wanted to kind of make you aware of something that I -- I checked out. I went and I reviewed several survivor interviews that had been done in the last year, and about

50 percent of them don't know coworkers, so they don't provide them, you know.

MR. GRIFFON: Right, right.

MS. ROBERTSON-DEMERS: So my question to NIOSH is have you retrieved organization charts from these facilities so that you might determine who the coworkers are?

MR. HINNEFELD: No, we haven't.

DR. NETON: No. You've got to look where we've defaulted for coworker distributions. As you know, we tend to take a broad stroke -- broad brush approach to this and develop site-wide distributions of coworkers and assign either the 95th or 50th percentile of all the monitored population. We feel it'd be very difficult to get down in the organization chart level --

MS. MUNN: Uh-huh.

DR. NETON: -- and assign a plumber coworker to another plumber. They're just -- it's fraught with uncertainty --

MS. ROBERTSON-DEMERS: Well --

DR. NETON: -- and issues.

MR. GRIFFON: Especially when they move around in jobs, too.

DR. NETON: When they move around and --
MS. ROBERTSON-DEMERS: -- I guess what I was getting at is that in the cases where they haven't identified coworkers and you need a coworker interview, that may be one mechanism to identify coworkers.
DR. BEHLING: Or RWPs if they had instituted RWPs in those days.
MS. MUNN: A lot didn't.
MR. GRIFFON: Yeah. I mean I would agree with Kathy's comment that -- you know, some -- some that I've talked to, they tend to remember often who their -- their spouse went to work with and -- and commuted with more than who they actually worked with when they were in the plant, so sometimes coworkers can mean different things to -- you've got to be kind of careful that they're -- they're just not commuting together and they're actually working in the similar areas, so I'm not -- I'm not suggesting that it's always going to be the, you know, sort of a fountain of information. But I think -- you know, I think it's worthwhile at this point maybe establish some sort of triggers that, you know, could be

considered by the dos-- you know, how you phrase it is up to you, but you know, triggers to consider for coworker interviews. I think that might flesh this topic out a little bit.

MR. PRESLEY: Mark, this is Bob Presley. I agree with you, but I don't think a tremendous amount of emphasis is going to -- that needs to be put on this, and the reason being is when -- like you said, when they -- when they tell you that they have a -- who the coworker is, a lot of times they don't even know where the coworkers are alive or not. And if you're talking -- especially to a spouse of a deceased person, the elderly --

MR. GRIFFON: Yeah.

MR. PRESLEY: -- I mean it's -- it's good to have something like that in there that says, you know, has a coworker been contacted, but I really wouldn't put a whole lot of emphasis on that.

MR. GRIFFON: Well, the other -- the other thing I noted was coworker follow-up versus coworker follow-up interview. I mean I could see an instance where, you know, three coworkers were identified during the interview

and there's some discrepancy in the CATI versus the person's records. And I said well, let me look in the identified database and look these other people up to see if they actually were in this same area and they were actually receiving bioassay as opposed to this person -- you know -- you know, why -- why do I have this discrepancy, so you can follow up without actually calling them up.

MR. PRESLEY: Right, right.

MR. GRIFFON: You know, you can sort of check coworker records, but --

MR. PRESLEY: That's correct.

MR. GRIFFON: -- yeah. But I think -- I -- I mean -- not to cut this topic off, but I think maybe, you know, that -- that all falls under the concept of some sort of -- of triggering devices for coworker follow-up, and I think that should be considered -- my opinion, anyway.

MR. PRESLEY: I -- I agree, it should be considered, but I don't agree that it's a earthshaking thing here.

MR. GRIFFON: Right, I don't mean to suggest that, either.

DR. WADE: Might I suggest a brief break, Wanda, if that's okay? We're --
MS. MUNN: I think that would be wonderful.
MR. GRIFFON: I think we all got agreement on that one.
MR. PRESLEY: Be fabulous.
DR. WADE: Back in -- back by 10:00.
MR. GRIFFON: Ten o'clock? Okay.
MS. MUNN: Uh-huh.
MR. PRESLEY: I'm going to cut off and then I'll come back on the phone.
MS. MUNN: Thank you.
MR. GRIFFON: Me, too. Thanks.
(Whereupon, a recess was taken from 9:50 a.m. to 10:05 a.m.)
DR. WADE: Larry is a little late joining us, but let's pick up where we left off, Mark or Wanda.
MS. MUNN: Go, Mark.
MR. GRIFFON: I think we're on Proc. 5, finding 5-03 -- some of these I think we've covered already, but we might as well go through them in order just to make sure we don't miss anything. But Stu, maybe you can pick up on 5-03?

MR. HINNEFELD: Well, 5-03 to me is -- I mean we've talked about this before --

MR. GRIFFON: Right.

MR. HINNEFELD: -- it's preparation of the claimant. We've kind of given our -- our position on that.

MR. GRIFFON: Okay, and I think we've covered it with our -- with our action on the subsequent item.

MS. ROBERTSON-DEMERS: Mark, can I add something here?

MR. GRIFFON: Sure.

MS. ROBERTSON-DEMERS: One of the things that I noticed in the interview is the very complicated language -- like radiation-generating devices -- and there needs to be some explanation, perhaps in the glossary that is sent out, to explain what that is, 'cause people know X-ray units. They don't know radiation-generating devices.

The other thing is we're not really looking for the interviewer to coach an individual, but to provide information without coaching. And I have an example of an interview that was actually put together by ORAU for the Y-12

beryllium worker surveillance and it actually allows -- it provides information that will make it easier for the claimant to answer the question.

MR. GRIFFON: Well, along those lines, Kathy, I -- I have -- I've had similar suggestions from the medical surveillance programs that are around the country. But as Jim Neton stated earlier, we have this OMB-approved interview with an approved script, and I'm not sure how -- how far we can stray upon that without -- you know, and then if we go for a -- modifying that, you know, how long would that take, how many interviews are already done that it wouldn't anymore, and I guess there's a lot of questions.

MS. ROBERTSON-DEMERS: Well, that's a question.

MR. GRIFFON: Yeah.

MS. ROBERTSON-DEMERS: I'm going to go ahead and give Stu and Wanda a copy of this so they can see what I'm talking about, and it's just further information for them to consider.

MS. MUNN: That'd be helpful. Do you have it in electronic form?

MS. ROBERTSON-DEMERS: Yes.

MS. MUNN: If you can send it to us electronically, then I'll see that the rest of this working group gets it.

DR. NETON: I've got a question for Larry. If that's generated by ORAU as a non-government agency, are they subject to OMB requirements, as well?

MR. ELLIOTT: Yes.

DR. NETON: They are?

MR. ELLIOTT: As our contractor working on --

DR. NETON: No, I'm talking about ORAU, as an independent contractor to the government --

MS. MUNN: For the beryllium.

DR. NETON: -- doing it on their own as a contract -- for beryllium work, for example -- would that still -- I'm just curious, I don't know.

MS. MUNN: I don't know if it does, either.

MR. GRIFFON: Good question.

DR. NETON: You know what I'm saying? If --

MR. ELLIOTT: You've lost -- you've lost me, I guess.

DR. NETON: If ORAU as a -- who is administrating a -- under a contract to DOE --

MR. ELLIOTT: Yeah.

DR. NETON: -- apparently that's what this is, are they then still required to file OMB-clearance paperwork?

DR. WADE: My understanding would be if -- if they are taking the action under a contract with the federal government, they're required.

DR. NETON: Okay.

MS. MUNN: That was my understanding.

DR. NETON: I just didn't know that.

MR. ELLIOTT: They don't have an OMB-approved date on this, which I would have suspected they should have had.

DR. NETON: See, that was my question. I don't know --

MS. MUNN: Which makes you nervous to begin with.

DR. NETON: -- how this really works, whether this is a --

MR. ELLIOTT: It's DOE, too, so --

DR. NETON: Yeah, I was just curious about that.

MR. HINNEFELD: I believe we can in -- we can in fact modify the --

MR. ELLIOTT: Yes.

MR. HINNEFELD: -- the questionnaire and go

back to OMB and get (unintelligible) approval of a modified questionnaire. It's not out of -- out of the question --

MR. ELLIOTT: Yes, we just --

MR. HINNEFELD: -- to modify the questionnaire.

MR. ELLIOTT: We have just finished obtaining a renewal of OMB approval on the CATI questionnaire. There were some modifications made in that renewal, and we can certainly put forward additional revisions, as -- as we see the need to do so.

DR. WADE: You cannot circumvent the OMB intent by issuing a contract. Now you can by -- by enlisting the services of a third party that's not operating under a contract. Not circumvent, but you're no longer required --

DR. NETON: Right.

DR. WADE: -- but...

MR. ELLIOTT: Well, when the government brings a burden to bear on an individual citizen, if we ask more than -- ten or more, we have to have OMB approval for collecting when we provide a burden to the claimants, whether it's us or our contractor.

MS. ROBERTSON-DEMERS: Mark, this is Kathy. In

this particular questionnaire, for example, it gives a list of job titles -- which would have to be really job categories if you wanted to make it applicable to all sites -- and it allows them to say yes or no, he was a machinist, or he was an engineer. And that would be somewhat helpful to the survivors. Also people are more familiar with general terms like did -- did your spouse work at accelerator or did they work at a reactor, et cetera, and if we ask these questions it just provides them with a little bit more information without actually coaching the interviewee.

DR. NETON: Well, you know we already have the DOL application that shows that where they -- what their job was every year at the sites where they -- you know, to the extent they could answer the information, and the interview actually starts with that. You said you were an electrician at Oak Ridge from this year to this year, that kind of stuff. So it's a little different. It's not starting, you know, from scratch I guess. It's not a de novo interview (unintelligible).

MS. ROBERTSON-DEMERS: Yeah, you know, I -- I just give this as an example. Because it's -- it has to do with beryllium it would definitely have to be modified, but it's just a mechanism that you can sort of provide information without coaching.

DR. WADE: We appreciate that.

MS. MUNN: Yeah. I'll see the other members of the working group get a copy of this and try to make some judgment as to how much of it is not the kind of thing that isn't already covered on the original paperwork that our folks do.

MS. ROBERTSON-DEMERS: I think as far as work location, it would be very helpful if -- if they had did he work at a reactor, did he work at an accelerator, did he work in a chemical processing plant -- you know, some generalized terms that might actually mean something to them.

MS. MUNN: Uh-huh. An awful lot of places I can think of -- I'm thinking of some of the employers that we've just gone through over the last year or so, and it would never have occurred to me, for example, to include a question like did he work at a rolling mill. I

would never have thought about a rolling mill in terms of radiation exposure. I guess how complete such a list could be might be an issue, too.

MR. GRIFFON: I guess -- and maybe I -- I mean I -- I'm looking ahead at these findings, and to me the -- the other question here is, you know, to what extent can the -- can the interviewer use a -- a sort -- I'm going off of what Wanda said, the rolling mills. I mean I could see not -- not even site-specific, but type of operation specific, and a lot of these uranium facilities are very similar and they have similar terminology and -- you know, but to what extent can the interviewer stray from -- from the script, quote/unquote, to -- to elicit -- you know, to sort of pull information out of the interviewee. And I think the answer I got before was you can't stray very much.

MS. MUNN: Well, yeah, and -- and it's been so long since I've looked at the original questionnaire that we have approved, I'd have to go back and look at that by comparison to what Kathy's proposing here and see --

MR. PRESLEY: This is Bob Presley. I agree.

If you start getting into specifics, you're -- if -- if y'all remember what Jim Neton had here not too long ago, it was about 30-something pages of job titles --

MS. MUNN: Uh-huh, I remember that.

MR. PRESLEY: -- if you get into that, somebody's going to be reading job titles for four or five days. I don't think we want to do that.

MS. ROBERTSON-DEMERS: Well, ORAU has -- at least for Y-12 -- kind of developed job categories, but as Jim was saying, you know, it's not so much the job titles because they're available. It's -- it's general working location -- for example, the employee interview has a list of radionuclides.

MR. PRESLEY: Of what?

MS. ROBERTSON-DEMERS: Of --

MS. MUNN: Radionuclides.

MS. ROBERTSON-DEMERS: -- radionuclides. If you could do a similar thing for general location and design it so that it would be understandable to someone who is likely not told any details about their spouse's work. You know, they would know that he worked at say

a reactor, but they wouldn't know that he worked out at Hanford in -- at N reactor, or that he moved between reactors.

MS. MUNN: Yeah, it may be helpful. I'll -- I'll undertake as a responsibility to get a copy of this to the other members of the working group and I'll go back and try to take a look at our original questionnaire, which I haven't looked at in three years I think, and --

MR. GRIFFON: I guess my -- I guess part of the reason I was thinking of these interviewer cheat-sheets, if you will, was, you know, that -- that, you know, because of the restrictions or the time -- you know, the time it might take to modify an OMB-approved interview, not to mention the fact that we've done so many of these already -- NIOSH has done so many of these already --

MS. MUNN: Yeah.

MR. GRIFFON: -- that you already have a system full of CATI interviews, and to drastically modify your interview approach now, I don't know if that's -- if that's realistic --

MS. ROBERTSON-DEMERS: Well, I guess --

MR. GRIFFON: -- but -- but I mean I was thinking if -- if, you know, as a -- a sort of stop-gap measure that, you know, site-specific cheat-sheets would be -- I'm agreeing with you, Kathy, in principle, but I'm thinking what can we do at this stage of the game to maybe instead of just -- I think these -- in my opinion, anyway, the interviews are a bit too passive and -- and certain -- certain -- certain memory -- memory triggers may be helpful in -- in this process of pulling out information. Maybe not even -- from the survivors it's even more unlikely, but from former workers. You say certain buildings and not even the building number -- official building number, sometimes it had a --

MS. ROBERTSON-DEMERS: (Unintelligible), right.

MR. GRIFFON: -- a name they used for the building, you know, and they say oh, yeah, you know, where -- I worked on that -- in that building for four years, you know, and it -- it may not be captured in the job title information 'cause it may just say machinist, but they may have worked, you know, in several areas around and they may have very impli--

very different implications as far as exposures, so I'm -- I'm with you there. The question I have is, you know, if -- what can we -- how can we sort of effectively enhance the process now without turning the whole thing upside -- you know, I mean I think we have a lot of existing interview data and how can we improve it now or enhance it now as opposed to changing the whole -- the whole interview itself, the -- you know, the construct.

MS. ROBERTSON-DEMERS: Mark, this is Kathy. I don't think that we necessarily have to change the interview. I -- I think we could use cheat-sheets or site-specific sheets to trigger memories.

MR. PRESLEY: This is Bob Presley. Let me ask a question to Stu or Jim Neton. Have you all had any type of comments back from your interviewers that they need this type of information?

MR. HINNEFELD: If I'm not mistaken, they do get kind of continuing education sessions, continuing training --

MR. PRESLEY: That's what I remember.

MR. HINNEFELD: -- sessions for the

interviewers to address things like that, but I guess I -- I don't -- I've not heard from the interviewers, but I don't know that I'm in a position where I would have heard it. You know, if they're making those comments, I don't know if I would have heard them.

MR. PRESLEY: As I remember, though, before they are -- are let out on their own to be an interview, they get some formal training on the sites they're going to be working on. Is that not correct?

MR. HINNEFELD: To be honest, I don't really know exactly.

MR. PRESLEY: Okay.

MR. HINNEFELD: Do you know, Dave?

DR. NETON: I think they get -- they do get some basic radiation background training if they're not, you know, a technical person, but I don't think it'd be possible to give them education on all 200 sites we're trying to --

MR. PRESLEY: No -- no, no --

MR. GRIFFON: But that -- that's -- yeah, but --

MR. ALLEN: They get some familiarization with the complex. I'm not sure if do site by site.

DR. NETON: Right.
MR. ELLIOTT: ORAU has a process in place, don't they, where they bring in a person who can answer the claimant's issue or question?
MR. HINNEFELD: They have -- they have health physicists, if you're talking about during a --
DR. NETON: A closeout (unintelligible) --
MR. HINNEFELD: -- a closeout (unintelligible).
DR. NETON: -- a closeout interview, but during their regular CATI interview, I'm sure they could bring a health physicist in, but I don't think that's been formalized.
MR. HINNEFELD: I -- I don't know.
DR. BEHLING: Is there an attempt to put certain cases to a select interviewer -- meaning that if there's a Savannah River Site and you have the option of going down the line but I know you've done them before, you're going to keep getting them because as you progress, as you experience the interview process over and over again, you'll become certainly much more adept in understanding the process for the interview if you stick with one site as opposed to just randomly saying who's next and throw them a case.

MR. HINNEFELD: Yeah, I -- I don't know if they've tried to do that or not. I would suspect you'll have -- that would be a pretty difficult scheduling activity for them, for this reason. The claimant -- the interviews occur, to a large extent, in chronological order as -- you know, in the order that the claims came in. And so scheduling -- so you're essentially -- the sites you're going to talk to essentially dictated by situation outside your control. In other words, what order you got them in. Scheduling an interview isn't the easiest thing in the world. You know, you send them a letter saying we're going to call you and schedule an interview, and then you call them and you schedule an interview and you set the schedule. And so they're scheduled at the convenience of the claimant, so you have -- you know, so you have a time -- interview block that pops up that is then when the claimant is available to talk, and so now you have -- now you're faced with the further problem now of trying to match your -- your interviewer for the site where this person worked and have them available at that time. So the scheduling

would get really cumbersome. I would bet they try. I would bet they try to do that because -- Joe has interviewed several Savannah Rivers, let's try to keep him on Savannah River -- I bet they try, but I bet it's not rigorous because of scheduling problems. That would be my judgment.

MS. ROBERTSON-DEMERS: Can we get some further information on --

MR. HINNEFELD: Well, I can. I can.

MR. ELLIOTT: I think it's safe to say, though, that things have changed over time. In the early days when they were doing interviews, I think they had more people on staff doing interviews, and they were doing them very fast. I think as we proceed through the time line of doing dose reconstructions over the course of the last three years and compare what happens in those time frames, we're probably doing interviews a little bit differently now because we're only doing about 100, 150 a week. Right?

MR. HINNEFELD: Probably.

MR. ELLIOTT: You know, at one time they were doing 300, 400 a week.

MR. HINNEFELD: Quite a few.

MR. ELLIOTT: So I'd just offer that. Keep that in mind. You'll see different names associated with different time periods.

MS. ROBERTSON-DEMERS: Well, we -- we brought up connecting, you know, familiarity with the site profiles, and this would be one way to kind of limit the scope that they would have to be familiar with. They should at least read through the site description.

DR. NETON: I think these are all great suggestions, and I'm all for -- for improving our process at every step along the way. But I think we've got to -- got to look at the bigger picture here, and is there real evidence that the DRs are biased due to inadequacies in the interview process. I mean are we working on some -- some factual basis that shows us that this process is just flat-out not working and we need to embark on wholesale changes? I mean improvements are great. I think we should tweak them as we go, but I'm not sure that the -- that the interview process is --

MR. GRIFFON: No, I --

DR. NETON: -- completely broken, and -- and this --

MR. GRIFFON: And Jim, there's also the other side of this, too, which is that, you know, for -- for all good reasons, we're into this interview process now. But when -- when the -- when the people being interviewed are frustrated by it, then that's another prob-- you know --

DR. NETON: Yeah, I --

MR. GRIFFON: -- another side of it.

DR. NETON: Right.

MR. GRIFFON: So you know, we've got to consider that, too.

DR. NETON: I definitely agree with that aspect --

MR. GRIFFON: Yeah.

DR. NETON: -- and we need to communicate better. But as far as the site knowledge and educating people on all the specific sites, I think we need to be careful about, you know, committing a lot of resources to something that may or may not be a value-added effort. That's all I'm saying.

MS. ROBERTSON-DEMERS: I guess what we're really after is just a general familiarity with the site. For example, with Savannah River

that they would be aware that there were reactors, that there was a sep-- separation facilities, that they worked with tritium and that they did uranium fabrication, kind of -- kind of that level of familiarity, just so...

MS. MUNN: This is Wanda. Perhaps it wouldn't be unreasonable to ask that -- that the interviewers who have claims from a specific site perhaps read one segment of the -- of the site profile that defined what -- what -- the segment of the site profile that tells us what's there. That -- that might not be an unreasonable -- would that be a logical compromise point? 'Cause it's not -- those -- the summaries aren't that long, and the summary of the site description.

MR. ALLEN: For the major DOE sites.

MS. MUNN: For the major DOE sites, yes.

MR. ALLEN: I mean we have a lot of sites we don't have site profiles for.

MR. GRIFFON: Right, right.

MS. ROBERTSON-DEMERS: Well, the other thing is, Mark, that you mentioned having a site-specific sheet in the hands of the interviewer when they're doing the interview, and that

would provide them with some knowledge, also. And that can be developed from the site description.

MS. MUNN: Well, yeah, but we get back to the issue of resources again, and the resources being who's going to develop that, and if it's -- if it needs to be more -- if it needs to be more focused than the summary of what's available in the site profile, then who's going to do that and how much time is that going to take? Or is it just reasonable to say -- suggest that -- that interviewers read the summary of the site profile and get a feel for what's there? That's --

MS. ROBERTSON-DEMERS: Well, that certainly would be an improvement.

MS. MUNN: -- better than...

MS. ROBERTSON-DEMERS: And then they'd gain knowledge, again, if you had a particular interview -- interviewer assigned to a series of sites. That would limit the amount of -- of reading that they would have to do.

MS. MUNN: But I think we just identified that we don't have interviewers working on specific sites. Right? That --

DR. NETON: We're not sure of that.
MR. HINNEFELD: We're not sure.
DR. NETON: We don't really know.
MR. ELLIOTT: What we are talking about here is process, and certainly we're interested in hearing, you know, how we can improve the process. But when we make those considerations, we have to examine, you know, what -- what the need was that's driving a process change and will that need result in -- in more benefit and use of resources than not.
MS. MUNN: Yeah, you have to have --
MR. ELLIOTT: So I'm glad to hear these -- these comments.
MS. MUNN: So how did we resolve that?
MR. GRIFFON: Yeah, I'm sorry, I was just -- I mean, you know, there -- there's two things, this -- this question of assigning interviewers to certain sites or types of sites, I guess I would --
MS. ROBERTSON-DEMERS: Yeah.
MR. GRIFFON: -- you know, maybe make a category like that, and I know the scheduling -- I understand what Stu said, the scheduling difficulties, but it might be -- some way that

-- that the procedure can be revised to say that, you know -- I mean this may be a recommendation from the Board and, you know, this is just open for discussion, but you know, that, you know, NIOSH will attempt, within scheduling constraints, to, you know, try to do something like that where they try to put -- put certain interviewees toward certain interviewers. I think that lends to the credibility of a program, too, that -- you know, as a person becomes more knowledgeable about a site, the -- you know, this is -- this is sort of the face of the NIOSH program for that claimant, so you know, when they're talking to the person if they get the sense right off that they have no idea what processes or buildings or areas they're talking about -- we've heard this in public comment that, you know, they got a draft back from their CATI interview and the person wrote down words that were completely wrong. They were mentioning one process and the person obviously didn't know what process they were mentioning 'cause they wrote down a completely different thing, and that -- that takes away from the program's

credibility, I think.
That's one thing maybe that this scheduling can be done, to -- to the extent possible, to sort of tie certain interview -- certain sites to certain interviewers. And a second thing might be that some sort of enhanced training requirement -- you know, that we recommend training for the -- the sites that the interviewer is likely to cover. Again, this is to the extent practical -- you know, I think, and it would have to be for the larger sites or for, you know, like AWE uranium sites all in one lump training session, you know, something like that, that they've got an overview at least of the major processes at some of the major sites that they're likely to cover as an interviewer.

MS. MUNN: But Mark --

MR. GRIFFON: That might (unintelligible).

MS. MUNN: -- this is Wanda, and again, I -- I continually am concerned about our resource limitations here. And I'm also concerned about what we've already been told today about the Board's instruction to NIOSH to do the best they can to address these on a first come,

first served basis, to try to work off the older cases first. And if we're going to try to do that, then to add to that the -- oh, by the way, you should have -- you should assign these cases to individuals who already know something about that site or who have worked with a significant number of people from that site, then you're very likely getting yourself into a situation where you can't match where Peter's going with where Paul's going. It's just --

MR. GRIFFON: Well, that's why -- I guess maybe I didn't qualify it strong enough, but there's why I think you need to -- and -- and I wouldn't write a "shall" statement in this procedure. I would say, you know, that it -- it's, you know -- this -- this is kind of, you know, if scheduling allows, we will, you know, funnel the -- you know, but certainly you want -- you want to provide the claimant with the interviewer at their -- you know, when they can do it, they -- you know, it's sort of contingent upon their schedule more than on -- on NIOSH staff schedule or -- or ORAU staff schedule, so you're -- you know, you're not

going to always get that match, but -- but to the extent possible you'll try to match certain interviewers with certain sites or types of sites, you know. I don't know, that -- that's just a suggestion, you know, and --

MS. MUNN: Can we say that's possible, Larry?

MR. ELLIOTT: Well, let me just offer this. I think -- you know, there's two things that can happen here and certainly we find this is -- as a good discussion and I hear constructive criticism and I'm sure that we will take this back and we'll talk it over with Kate Kimpan and the ORAU team and let them know that you'll -- you folks have brought these thoughts to the table. And you know, that's one thing that will happen. We will talk -- talk about these comments.

The other thing that can happen is -- and we would welcome, you know, a Board discussion on this, and if you have a Board recommendation to make, we would be happy to hear that.

MR. GRIFFON: Right, at this point this is just a workgroup, yes, so -- you know.

MS. ROBERTSON-DEMERS: Is it possible for us to see the DOE complex training module?

DR. NETON: I think so. We can -- I don't see why you shouldn't be able to.

MR. GRIFFON: I didn't hear that comment, Kathy.

MS. ROBERTSON-DEMERS: I was asking to see the DOE complex training module that they receive.

MR. GRIFFON: Oh, okay.

MS. MUNN: And Jim said he thought that was possible.

MR. GRIFFON: Yeah, I think that's probably out there on the O drive on the training --

DR. NETON: I'm not sure.

MR. GRIFFON: -- 'cause -- yeah. Okay, well --

MR. ELLIOTT: We have to be careful -- we have -- we'll -- just for the record, we'll have to look into this, Kathy, 'cause I'm not sure the training materials have been deemed under the contract to be business confidential or not, so --

DR. NETON: (Unintelligible)

MR. ELLIOTT: -- I don't believe so, but we'll have to look at that.

MS. ROBERTSON-DEMERS: Do you have handouts that you give the trainees?

DR. NETON: I believe they do. It was at least

a full day class, if not longer. I've forgotten. It's been a while since -- I'm aware that --

MR. ALLEN: They had several days worth of training and this was one piece of it. There was, you know, Privacy Act, et cetera, there were all kinds of training and --

DR. NETON: Yeah, it was a fairly --

MR. ALLEN: -- I really don't remember any details on this particular one.

MS. ROBERTSON-DEMERS: Well, that might be an alternative if you run into that issue.

DR. NETON: We'll look into it and see and get back to you, see what we can -- can give you (unintelligible).

MR. GRIFFON: I think -- I think at this point this brings us down to Proc. 05-08, finding 08, unless I missed something. I mean I think we covered sort of the find-- the discussions in five -- four, five, six and seven.

MS. MUNN: Yeah, and I -- I hesitate at this juncture for us to make any specific recommendation to the Board in this regard while SC&A and NIOSH are still talking about it, simply because I'm not at all sure that the

process is broken. And if it's not broken, then --

MR. PRESLEY: Don't fix it.

MS. MUNN: -- then perhaps simple tweaks and a little more communication will resolve it.

MR. GRIFFON: Yeah, I think at this point what I would do to the Board, Wanda, if it's okay, is report back that, you know, we had these discussions on these items and some possible recommendations discussed were as follows, but we -- we wanted to, you know, do more follow-up first before we would make these recommendations --

MS. MUNN: Yeah.

MR. GRIFFON: -- so just sort of bring this discussion to the full Board on these items and not bring any specific recommendation yet, I guess.

MS. MUNN: Yeah.

MR. PRESLEY: Mark, this is Bob Presley. I don't know if you'd even want to say they're recommendations. At this point they're discussions.

MR. GRIFFON: Right.

MR. PRESLEY: And that these are the items

being discussed and we will bring them back to the Board at a later date.

MS. MUNN: If necessary.

MR. PRESLEY: Right, and there's -- you know, you've got some legal ramifications in here, too.

MR. GRIFFON: Right, that's fine. Okay.

MR. HINNEFELD: Are we leaving it then that we should get with ORAU to go over these -- this list of suggestions --

MR. ELLIOTT: I think we should share -- share what we've heard with ORAU.

MS. MUNN: Yeah.

MR. HINNEFELD: -- and get some additional feedback from them on terms of the impact of implementing some of these things. And maybe they have things in place that they feel meets the intent of these that we -- sitting here today, I just don't know about. So I think there's probably additional information for us to get from ORAU with respond -- with respect to --

MR. GRIFFON: And maybe a sense on this question of who's doing -- if there are certain people that are doing certain interviews for

sites. I mean we're not sure that that's not taking place --

MR. HINNEFELD: That's right. I mean they -- they could be able to provide us -- well, this is what we're doing, you know, and so we may actually have a better -- you know, a better response than --

MR. GRIFFON: So maybe that's a fol-- follow-up --

MR. HINNEFELD: -- what we're able to put together for this.

MR. GRIFFON: -- item would be that -- that ORAU would give us a little more specific response on these discussion topics.

MR. ELLIOTT: It would certainly help us if somebody would frame the need, you know, that -- that's being addressed here. What's -- what's driving this? Is it -- is it -- you know, is it -- well, I won't frame that for you. I think you need to frame that for us. I'm certain that ORAU will want to hear what -- you know, well, what are we trying to fix here? I mean --

MS. MUNN: Yeah.

MR. ELLIOTT: -- certainly there are things

that you've heard in this conversation that are, you know, good things to do and right things to do and we should take those up and get them done.

DR. MAURO: Larry, this is John Mauro. I was thinking about the same thing you brought up. You know, we've reviewed a number of -- I guess where we've done 60 and we're working on the next 20, so we'll have 80 actual cases reviewed, and in each case we looked at the CATI. I think that in order to put I guess some legs to this one, the question becomes out of -- out of the 80 cases that we've reviewed to date, are there many places where we felt that there was some deficiencies related to either the interviews -- the CATI interview data and how it was followed up on that might have been important to the dose reconstruction. At least that would give us some kind of quantitative sense of whether we're gilding the lily or not.

And Hans, is that something we can put together? That is, out of the 80 cases, how many -- and this would a judgment call of course on our part -- how many where we felt

that either the CATI interview was done in accordance with some of the things we've been talking about may have added significant value that could have had a substantial effect on the dose reconstruction, or perhaps some follow-up work, like the coworker aspects, that might -- that perhaps coworker follow-up should have been done in that case because it was -- it would have added some value. Is that something we can do to help out here?

MR. ELLIOTT: Before Hans or Kathy answers that, let me give them time to think and just ask this. You used a couple of different phrases there, John -- "significant difference", "important difference in the dose reconstruction", do both of those equate to a change in the decision on the dose reconstruction --

DR. MAURO: You know, that's a -- that's great question.

MR. ELLIOTT: -- and that's where we come from.

DR. MAURO: We -- I -- I wouldn't say it would change the decision, abso-- in other words, we would not be looking at it from that perspective. But I think we would look at it

from the point of view do we think that there could have been a substantial change in the doses, whether --

MR. ELLIOTT: So -- so does that --

DR. MAURO: -- or not that would change the compensation --

MR. ELLIOTT: -- equate to --

DR. MAURO: -- decision, I don't think we'd want to go there.

MR. ELLIOTT: -- to -- do -- could we say that equates to a change -- a 20-plus percent change in dose reconstruction --

DR. MAURO: I wish I could --

MR. ELLIOTT: -- the POC or --

DR. MAURO: -- answer that question.

DR. BEHLING: Well, let me make an attempt. To date, of the 80 audits that we've done, there may have been a couple of instances where a CATI report would have potentially made a difference that might have affected the dose, to some extent. It's uncertain. Sometimes, you know, the -- the ability to decipher what might have come had a line of inquiry been pursued by the dose reconstructor that would resolve a potential conflict between what was

stated in -- by -- in -- by the interviewee versus the DOE records, the outcome of that is difficult to quantify, John. But I believe, really, the -- the CATI report oftentimes is -- is done for multiple reasons, and I don't want to understate the importance, but it's really for the optics, it's for the public relations, it's for a number of things. But in truth, I don't believe I've seen too many cases where what was perhaps a deficiency in the CATI report would translate into a significant change in the dose reconstruction. And since most of the cases to date we've seen do in fact involve maximized dose reconstructions, the question -- as we've always said up front -- is if you find a deficiency and the person was in fact shortchanged, let's say in a number of missed neutron dosimeter cycles that were awarded, and then you realize that oh, my God, they gave him a hypothetical of 28 radionuclide internal, that translates to an organ dose of 18 rem; well, the truth is, yes, the neutron dose might be significantly increased, let's say by one or two rem, but at the same time the gift of 18 rem would be withdrawn the minute

you approached 50 percent. So it's one of those catch-22s where yes, the dose will change, but there is so much maneuverability built into the maximized dose reconstruction process that when you approach the 50 percent value there is so much taken back again that's potentially going to adversely impact the overall dose to the point where you end up with less as a result of an improvement in another area.

MR. ELLIOTT: You know what I would think would tell us the most on this would be some blind dose reconstructions. If we had somebody else -- if we had you -- take the information that we used and do a blind, or even use the -- you know, do a --

DR. BEHLING: Yeah.

MR. ELLIOTT: -- dose reconstruction on the ones you've identified that you have concerns about in this regard, how would it turn out?

DR. BEHLING: Yeah, we've discussed it in some of the previous instances where we've been asked the question, would it change. And I keep saying yes, the doses might change, but again, the -- the possibility exists that

there's so much maximized dose that has been assigned that can be readily taken away again the minute you approach a 50 percent POC value, and so you end up with less than what you started off.

MR. GRIFFON: At least on the ones reviewed so far.

DR. BEHLING: Yes, yes.

DR. MAURO: What I'm -- what I'm hearing --

MR. GRIFFON: Let me -- let me -- John, let me just say that in the first 20 report that we -- that I thought we submitted but apparently it's not gone in yet, there's a section, ongoing concerns, and Computer Assisted Telephone Interview is topic one. And I might refer everybody to that paragraph that -- and it says in several cases -- case 6, 8, 10, 11 and 12, that's 25 percent of the first 20 -- SC&A reviewers indicated that there was either inadequate follow-up on items raised in the CATI interview, or that incidents identified were not considered in the DR report.

Now as -- that -- that doesn't change Hans's point that, you know, most of these cases were maximi-- you know, probably wouldn't have

affected the outcome, but it was raised, at least as a concern --

DR. BEHLING: Yes.

MR. GRIFFON: -- in 25 percent of the first set.

MS. BEHLING: In fact --

MR. GRIFFON: So -- and I think a big part of that is not only deficiencies, but of this -- this inconsistency question, you know, that if -- if a person in the interview says that he had bioassay all the time and that the DR report comes out and says the person was not monitored by bioassay, you know, wait a second, that should raise a flag to me, you know, at least that may deserve a follow-up to make sure that we're not missing something major. And it may still be that the dose assigned was -- was maximizing, but to the claimant receiving that back, they're going to say wait a second, I got bioassay all the time. This thing says I never got it; they don't know what they're talking about.

MS. BEHLING: Exactly.

MR. GRIFFON: You know, so that -- that's -- that's a big part of the concern, I think.

DR. BEHLING: Yeah, it's the optics, Mark.
MS. BEHLING: Yeah.
MR. GRIFFON: Yeah, the optics, right.
MS. BEHLING: And in fact, Mark, we could easily go down through the matrix and look at our numbering system on the matrix for all three of the sets of cases and quickly identify how many times -- I think it's B-4 -- was identified and that would tell us an inconsistency between the interview and what NIOSH used in the dose reconstruction.
I guess --
MR. GRIFFON: Well, maybe we should bring that back to the discussion next time, too, as well, Kathy, that -- as an action for SC&A --
MS. BEHLING: Okay, that's --
MR. GRIFFON: -- to bring that information.
MS. BEHLING: -- that's easy enough to do. If -- if I can just give my thoughts also, though, with regard to -- we keep talking about what's broken with the interview process. I believe what -- what SC&A's point here is not so much what's broken, but I believe what I'm hearing is -- and Kathy and Mark, is that we really want to try and -- and level the playing field

between the survivor and -- you know, the interview that's done with the survivor as opposed to the actual employee. And I think that is a lot of our concern, also. We realize this process -- you can't -- you can be fair with this process, and we just think it's not quite as fair as it could be to the survivor. And everything that's being suggested here I think is in -- is items that should help or -- help that survivor get through this interview process and make that interview process more meaningful to the dose reconstructor. (Unintelligible) Yes? No?

MR. GRIFFON: Yeah, I -- I think so.

MS. BEHLING: I think I hear the same thing.

MR. GRIFFON: I think we've kind of exhausted this discussion topic maybe.

DR. MAURO: But Mark, before we move on on this, I did have a thought that I think is important. It has to do with what I call a metric for satisfaction. Right now, as I understand it, after the letter goes out -- let's say denying a claim -- it's my understanding that there is no phone call, or is there, to the claimant explaining to him on

the phone what -- what was done and why the decision was made to deny. Am I correct in that assumption?

MS. ROBERTSON-DEMERS: There is a closeout interview, John.

UNIDENTIFIED: Closeout interview.

DR. MAURO: There's a closeout -- and that -- I thought the closeout interview was after the dose reconstruction --

UNIDENTIFIED: That's right.

DR. MAURO: -- started, or is it after the actual decision is made regarding granting or denying the -- the -- the claim?

DR. NETON: I don't want to speak for the Department of Labor, but I don't think they call them after a letter goes out denying the claim.

DR. MAURO: Now I only bring this up for one reason. I think that -- right now we've been talking a lot about the use of the interview process as a way of getting good information to help us do -- do good dose reconstructions. And we've only marginally talked about the use of the interview process as a way of engendering confidence on the part of the

claimants that the process is in fact working. I believe that there is a need for a metric that will allow NIOSH and the Board to get a sense of whether or not confidence in the program is increasing or decreasing as a result of the ongoing program. I don't -- I don't know if there's a way to do that readily, except perhaps a phone call to the ones who have -- who received the letter, whether it's both the ones who were granted and denied, and ask them, do you feel as if you've been treated fairly and that we were thorough and do you feel confident that the decision that was made was appropriate in your case. I would -- I mean -- and a measure of that as a function of time as a way to judge whether or not the thing -- all the things that we're all doing are in fact creating confidence. I think that's very important 'cause I think half of the -- the interview process is engendering confidence and the other half of course is getting good information to help us do good dose reconstructions. And we've been paying too little time to -- to the former, and all of this discussion was really geared toward, you

know, making sure we're getting enough and good information.

DR. WADE: I think when the Board discusses this we have to be clear that we understand roles and responsibilities, the NIOSH role versus the DOL role in terms of, you know, making those decisions. But I think the point is well made and understood.

MS. MUNN: And this is Wanda. I may be a little less than hopeful about that, but my guess would be that in most cases anyone who has received a positive response will say they were treated fairly. Anyone who has received a negative response will think that they were not treated fairly.

MR. GRIFFON: I'm not sure it'll cut that -- that straight, but -- you know, but --

MS. MUNN: Pretty close.

MR. GRIFFON: -- you're probably right on -- you're probably right on the positive ones.

MS. MUNN: Pretty close.

MR. GRIFFON: Yeah.

MS. ROBERTSON-DEMERS: Actually let me just share some feedback I've gotten during interviews. They're not really looking at what

cancers are being compensated and all. They're looking at -- well, Fernald has been compensated, so many of the people at Fernald have been compensated, and they're comparing that with other facilities that have a higher percent and they're wondering why. Why aren't we receiving compensation -- as a group.

MS. MUNN: Yeah.

MR. GRIFFON: Right.

MS. MUNN: Any -- anybody who -- certainly anyone who knows anything at all about the existence of an SEC is going to question that.

MS. ROBERTSON-DEMERS: Sure.

MR. GRIFFON: That's right, yeah.

MS. MUNN: So?

MR. GRIFFON: Well, can we go on to finding nine, Proc. 5, finding nine.

MS. MUNN: Yeah.

MR. GRIFFON: I have a question on that, without having the full report in front of me. It says that NIOSH would consider the revisions -- or revising based on the comments, but I think there's a whole list of specific comments in that section. Am I -- am I right about that?

MS. MUNN: Yeah, there's --
MS. ROBERTSON-DEMERS: You're right.
MS. MUNN: -- a whole bunch of them, whatever the gaps were.
MS. ROBERTSON-DEMERS: I -- I looked -- I've been looking at the most recent version of the questionnaire, and they have made some improvements, but it's not all-encompassing of the suggestions that were made in the review.
MS. MUNN: Were the most significant points covered, do you think, Kathy? 'Cause I don't know what the most significant points were.
MS. ROBERTSON-DEMERS: Well, just as an -- just as an example, we said that you hadn't included in vivo counting and now it's included. I think that's going to be part of the review of Procedure 90.
MR. HINNEFELD: I think that the revisions that were made to the questionnaire actually occurred independent of this procedures find-- of the report of the procedures review, so there are -- there are a lot of suggested items in the review -- in the procedure review report. I think that it would serve well to have -- to me, the logical audience are the

dose reconstructors, and are there things that -- or at least at that CATI as to these questions, would we have a better product, a better compilation of information available to you at the time you do the dose reconstruction. So we think there's probably some -- some merit to taking a look at the -- at the interview form and -- to see if there's some adjustment that should be made, so -- again, that --

MR. GRIFFON: I think this goes back to our earlier discussions, doesn't it, of -- you know, just whether -- what -- whether are you can change the interview, to what extent you -- you know, if you have to get OMB approval to change the interview --

MR. HINNEFELD: Well, we would have to do that.

DR. NETON: Yeah.

MR. GRIFFON: Yeah, or can you -- can you have notes to assist the interviewer, and to what extent will these be effective in -- in the whole DR process. Is it really worth the time and effort, so I think if -- we covered a lot of this in the earlier discussions, didn't we?

MS. MUNN: I think so.

MS. ROBERTSON-DEMERS: Yeah.

MS. MUNN: I'm not sure whether there's any action to produce some kind of an outstanding list of what has not yet been addressed that remains a concern.

MS. ROBERTSON-DEMERS: I think that will come with the review of Procedure 90.

MS. MUNN: Okay.

MR. GRIFFON: Well, I guess maybe an action on -- on it -- it -- OCAS says here they will evaluate revising, so maybe, you know, a -- a detailed account of that evaluation would be useful.

MS. MUNN: Well, I thought I was hearing that the revisions had been done or had been incorporated in 90 or 92. Did -- did I not hear that?

MR. HINNEFELD: Well, the --

MS. MUNN: I heard the wrong thing?

MR. HINNEFELD: -- the interview --

MR. GRIFFON: That's the procedure versus the interview.

MR. HINNEFELD: Yeah, there's -- there's a questionnaire. There's an interview questionnaire.

MS. MUNN: Yeah.

MR. HINNEFELD: That's what we're talking about taking a look at, seeing, you know, with the -- there's quite a number of them suggested in the proce-- in the report, in SC&A's report when they reviewed the procedures. There's quite a number of things that -- an example of things that maybe should be included in the interview questionnaire. And so what we're saying here is we will -- we will take a look at those and maybe -- and other things. You know, we've got dose reconstructors who've done 12,000 dose reconstruction reports. Maybe they have their own ideas about it would be --

MS. MUNN: Yeah.

MR. HINNEFELD: -- you know, it would be good for the CATI to ask these things, as well, and decide, you know, are we getting the information we want. Now once we decide that, then the process of revising the questionnaire will take a long time because there'll be the OMB clearance requirement in order to get the questionnaire changed. So -- you know, so -- you know, weighing -- we'll have to weigh is the additional information that we would get from the revised interview and the -- for dose

reconstructions, is that enough -- you know, significant enough change we want to go ahead and pursue that, knowing full well that it'll -- maybe a year before we actually start gathering it in interviews.

MS. MUNN: Yeah, the real question is is it worth it and do we have the -- the resources to do it, what'll it buy us when it's all done.

MR. HINNEFELD: Well, I think we can -- you know, we can take a -- the first step, the evaluation step, we should be able to do. I mean the eval-- the evaluation step is just sort of process improvement that you do all the time. You know, what are we doing and are there ways to improve it. I mean that's just something that we should all be doing, so I don't mind doing the evaluation part. Now I can't promise an outcome of what will happen in the evaluation part.

MS. MUNN: Good, an evaluation will occur and we will take a look at it.

MR. HINNEFELD: Right.

MS. MUNN: Good.

MR. GRIFFON: That sounds good.

DR. WADE: And maybe for the record, Hans has

used the word "optics", the optics of the process. The Board needs to decide the advice it wants to offer on the scientific quality of the dose reconstruction, and then consider whether it wants to comment on the optics of the process. And those are very different issues. And again, I think the Board needs to discuss that and decide the advice it wants to offer.

MS. MUNN: When people are saying optics today, optics to me means something that my optometrist does or how I see a thing. Are we talking about the appearance --

DR. BEHLING: Yes.

MS. MUNN: -- of things --

DR. WADE: I think that's how Hans used the term.

MS. MUNN: -- to --

DR. BEHLING: Yeah. And I -- and I think people feel that they're an integral part of the process and that may have an emotional -- it's like a doctor who's a very good doctor, but doesn't explain to his patient what the problem is. The patient feels short-changed, that he's not part of the process, even though

he is not -- as a medically-qualified person to affect the diagnosis or the treatment of his problem. But in just simply discussing it with the patient, there's a tremendous amount of benefit that the patient receives from having had the benefit of the discussion.

MS. MUNN: So you're saying how does this look to the claimant --

DR. BEHLING: Yes.

MS. MUNN: -- specifically when you're saying optics. Okay, how does --

MR. PRESLEY: This is Bob Presley. You want to say perception.

MS. MUNN: Yeah, the client's perception --

MR. PRESLEY: That's correct.

MS. MUNN: -- specifically, because how the outside world sees it and how a senator sees it is an entirely different thing to how the claimant sees it, so --

DR. WADE: And that -- and that's separate from the issue of the quality of the dose --

MS. MUNN: Yes.

DR. WADE: -- reconstruction.

MR. PRESLEY: That's right.

DR. WADE: It's not that it's not valid.

MS. MUNN: No.

DR. WADE: But they're different issues and the Board needs to decide how it wants to advise.

MR. GRIFFON: Well, yeah, it's separate from the -- it -- it's definitely separate from the scientific validity of the -- of the DR. Maybe it's part of the quality --

DR. BEHLING: Well, the one thing that --

MR. GRIFFON: -- (unintelligible)

DR. BEHLING: The one thing I was going to ask is when -- when you look at the regulations and you look under the section of hierarchy of data, we talk about obviously number one is the records themselves that take priority over everything else, and then you have obviously coworker data, and then you have source term reconstruction. I find nothing that is critically related to the CATI report as a source of information that is entered into this hierarchy for dose reconstruction. I think this is perhaps where a problem comes in at where the people who are being interviewed feel that they have a critical role to play, but all too often they don't perceive that that has had any impact on the dose reconstruction process

because the regulations don't even address it.

DR. NETON: Well, I'm not sure about that, Hans. I mean it clearly says in the regulations that the claimant's assertions will be taken at face value unless they can prove them to be essentially false, so it's -- the burden is on us to take the CATI interview and demonstrate conclusively that what they said can't be true.

DR. BEHLING: Well, in that case we're delinquent because if there are issues, for instance, that says there are no records for you to have been monitored internally because they're simply not there, and the CATI report states that yes, I was monitored externally and I was faithfully monitored internally, I -- I don't see there --

DR. NETON: But we're not -- we're not required to go back and obtain those records if they do not exist, but I think the dose reconstruction would demonstrate that we were -- we used data that -- a valid substitute for those datapoints that we couldn't obtain. We're not arguing the fact that he wasn't monitored. We don't -- we don't assert that he wasn't monitored if we

couldn't obtain those monitoring records, and we're using a substitute for that. It's -- we're not -- it's a little different issue, I think.

DR. BEHLING: Well, in most instances the -- the report usually states that while they -- if they acknowledge that there is a discrepancy, the assumption is always that well, we gave you the 12 or 28 and that should take care of it.

DR. NETON: Right, and that brackets on -- that's a bracketing surrogate bounding approach that we've adopted. I don't think there's anything inconsistent with that in our regulations.

MR. ELLIOTT: Is it your sense that the -- the people that we interview and the claimants we give a dose reconstruction report to don't realize and understand that all of the data that we've collected, including the CATI, including the DOE submittals to us, including all correspondence, is all rolled up into what is called a -- we call it an analysis file that supports the dose reconstruction report? Are we -- are we missing our audience on that point?

MR. GIBSON: Could you say that again, Larry? I didn't hear you.

MR. ELLIOTT: Well, I'm wondering whether or not, you know, the claimants just see the dose reconstruction report and think that's the end of, you know, the NIOSH effort and that's all that the NIOSH effort is going to say about their claim, when in fact we give over to the Department of Labor what we call a full analysis record, an AR, and that's what you folks have been reviewing. You know, it's all of that information. I'm just wondering if the claimants don't realize that and that's part of the problem they think their CATI has not been used. We -- I -- I grant you we don't give enough credit in the report to say here's how your CATI information was used or not used. It's -- it's just a -- it's a hand-off. It's a throwaway, almost. It's -- and we could do a better job in speaking about what we used or didn't use there and why, but maybe they missed the point that we've given all of that information up.

MS. ROBERTSON-DEMERS: I think that --

MR. GRIFFON: I -- I think what Stu said

earlier is -- is -- and that's why we're -- we're waiting to see the -- the revision of the -- the DR report language, the boilerplate language, 'cause this -- this kind of was brought up in the first set of cases, you know, and I think you're right that -- that there was -- it wasn't -- it wasn't that, as Jim said, most of these cases, you know, would have bounded any incidents that they were involved in, but the fact that they per-- you know, they thought they provided information that wasn't even considered, and it wasn't brought up in their DR report, then they thought well, why am I even bothering giv-- you know, so I think -- I think to some extent you -- you -- I think you have probably -- I mean we haven't seen the final draft yet, but you've -- you've taken that into account and -- and are modifying the DR report language so I think that -- that's helpful.

DR. NETON: Yeah, that -- that's a very difficult concept to explain. I mean they --

MR. GRIFFON: Right.

DR. NETON: A person has a very personal impact of what happened to them at the site. A good

example is this -- this assertion of many people at Savannah River that they ate nuts and berries and it wasn't addressed in the dose reconstruction. Now most health physicists look at that and say there's millirem involved here, very trivial. But to them it's a very real thing and it needs to be addressed and brought out, and we've learned our lesson there and gone back and gone out of our way now to try to communicate that. But that's a very small example, but that happens many times in all these dose reconstructions I think.

MS. MUNN: You'll get a lot of that at Hanford, too.

DR. NETON: Yeah, environmental exposures or some --

MS. MUNN: Uh-huh.

DR. NETON: -- some particular incident strikes out -- strikes a person's mind that even if they were --

MS. MUNN: He ate the fish all the time, yeah. Uh-huh.

DR. NETON: We can certainly do a better job there.

MR. HINNEFELD: Well, kind of on the topic of

finding number ten here, which is information from the CATI being used, there's been an evolution of the language in the dose reconstruction reports that today we are much more attentive to -- if -- you know, whatever the claimant relates in the CATI is addressed in some fashion in the dose reconstruction report in the dose due to incident section. You know, they assert this and they assert that, and we discuss them in there. We may say things like the -- the hypothetical intake that was assigned was certainly bounding for the situation that the claimant is describing here. But we have in fact -- we are now, today, a lot more attentive to that specific issue, is what the claimant told us in the CATI addressed in some fashion in the dose reconstruction. We're a lot more attentive to that today than we were say two years ago or two and a half years ago in the dose reconstructions that were being done at that time. So -- I mean the fact that we haven't come out with our new modified dose reconstruction that we think will improve communication to the claimant doesn't mean we haven't made language changes along the way

that have tried to improve the understandability in -- of these -- of these topics. So I am thinking -- you know, while the procedure -- well, Procedure 5, which is -- you know, that work in Procedure 5 is executed well before the dose reconstruction is done, so you can't really put in Procedure 5, you know, the requirement to explain why you didn't include some of the information in the dose reconstruction. I think we're kind of addressing that now. I think --

MR. GRIFFON: Right, I think back in --

MR. HINNEFELD: -- we're making sure we hit that now.

MR. GRIFFON: -- your DR report comment, you know, you -- modifications as you've gone along, yeah.

DR. BEHLING: Can I ask a question with regard to the information that you receive from the DOE in behalf of the dose reconstruction effort. Is that information shared with the claimant himself? I think it would be helpful if they saw that -- like what we get are sometimes hundreds of pages of dosimeter readings for each cycle, shallow dose, deep

dose, neutron components, tritium bioassays, urine bioassays, whole body counts, chest counts. If they understood that this is really the source of data that is really in many instances the full -- the driver of the dose reconstruction process, they would realize the -- the importance of that data and put their CATI information in perspective in saying well, you know, this is the best semi-quantitative information that can certainly not override the definitive and quantitative data that has been supplied by the DOE. Is that -- am I asking a question that has an answer?

MR. HINNEFELD: Yeah.

DR. BEHLING: Do people get that information?

MR. ELLIOTT: I think that's part of the script, isn't it, that they go over in part of the interview?

DR. BEHLING: But do they actually have the --

MR. ELLIOTT: They say this is what we got from DOE?

DR. BEHLING: Do they have the records themselves?

MR. HINNEFELD: The claimant -- the claimant --

DR. BEHLING: Are they entitled to get those

records?

MR. HINNEFELD: They're entitled -- they're entitled to it if they -- if they ask for it, they're entitled to --

DR. BEHLING: You know, I think it would be helpful if they were told listen, if you want those records, you are in the position to -- under the Freedom of Information Act -- to get those records to verify the voluminous amount of information that we have had at our disposal in reconstructing your dose. And they would probably feel impressed by how much information -- in many cases, now not always, but in many cases they would be impressed by the volume of information that has been used in reconstructing their dose.

MR. GRIFFON: Do they have to go through the FOIA process to get it?

MR. ELLIOTT: Yes.

MR. GRIFFON: They do?

MR. ELLIOTT: Yes.

MS. MUNN: Yeah.

MS. ROBERTSON-DEMERS: The other thing that that would do is to help them identify gaps. For example, if the --

MR. ELLIOTT: Well, I'm sure it's part of the script that they talk about the information we've got, they talk about the years it covers, they talk about the numbers in it if the person wants to hear that and asks the question. I believe it's part of the interview, is it not?

MR. HINNEFELD: I don't -- I don't recall.

MR. ELLIOTT: It's not in the list of questions. It's one of those follow-up questions that you give as you work through the interview with the interviewee.

DR. NETON: I don't think we offer them an opportunity to issue a FOIA request, though. Nothing that (unintelligible) --

MR. ELLIOTT: If they ask, they --

DR. NETON: If they ask (unintelligible) --

MR. ELLIOTT: -- (unintelligible) directed to do.

DR. BEHLING: Does the CATI have access to the large DOE data file that comes with the dose reconstruction during the closeout interview?

MR. ELLIOTT: The CATI folks have access to --

MR. GRIFFON: Well, that's number 11 now you're on. Right?

MR. ELLIOTT: They have the access to NOCTS, to

the case file and (unintelligible) --
MR. HINNEFELD: You know more about the interviews --
MS. ROBERTSON-DEMERS: Yeah, but the case file --
MR. HINNEFELD: -- than the rest of us.
MS. MUNN: Yeah, I was going to --
MS. ROBERTSON-DEMERS: The case file is requested in parallel with the interview.
DR. NETON: We may not have the DOE information at that time.
MR. HINNEFELD: Right.
DR. NETON: I mean we try to get an interview out within a couple of weeks of when the case comes in. More often than not we're not going to have the DOE response in our possession at that point. Earlier on that was true when we were behind --
DR. BEHLING: It would be important to have it as part of the closeout. At that point you have come to some reasonable understanding of what the doses are and --
DR. NETON: Well, you have to be careful, because oftentimes we don't get these for individuals. We get bundled packages where

we're going to have to redact a lot of information to respond to a FOIA request, and then when you start offering something that you can't produce in a timely manner, you're going to --

MR. ELLIOTT: One name on 50 pages with 100 other names.

DR. BEHLING: No, I realize that -- that's a problem.

DR. NETON: There are timing issues.

DR. BEHLING: That's a problem.

DR. NETON: We may have every legal right to do that and they may have every right to --

DR. BEHLING: I mean most of --

DR. NETON: -- ask for it.

DR. BEHLING: -- the dosimetry records is usually a page and has a single line that underscores that individual.

DR. NETON: Right, so that's what I'm saying, if you offer it at the time of the closeout, it could take us months to get this through the FOIA process.

MS. MUNN: It would be very --

MR. GIBSON: This is --

MS. MUNN: -- unwise.

MR. GIBSON: This is Mike Gibson. If I could -- you know, I -- I think that's probably good information to show them how intense that you go into these dose reconstructions, but to give them a two-inch stack of data, even if they go through the FOIA process, what I seem to hear from the people when they make their public comments is more of the missed dose, more of the missed incidents or the things that weren't con-- they don't believe were considered and may not have been considered, and may not have even been recorded, that -- that NIOSH doesn't have record of, rather than just showing them that you've really went through an exhaustive process of the information you do have.

MS. MUNN: But if they believe there are missed doses, and if they believe there were missed incidents, they would have reported that in the CATI. And NIOSH is required to take that into consideration. Right?

MS. ROBERTSON-DEMERS: Can I -- can I bring up something with regard to incidents? It's not always clear to people what an incident is, so some of them will compensate for it by telling everything and some of them will just flat-out

say no, where there may be an incident present, because they don't know what it is.

MS. MUNN: But how can we get them to...

MS. ROBERTSON-DEMERS: Well, in that case, I would add it to your terms.

MR. GIBSON: This is Mike again, Wanda, and what I -- what I meant is two things. A survivor may not know of a missed -- an unmonitored dose where I mean in an atmosphere with a radionuclide present at -- maybe once they exited the area they were bioassayed for plutonium but not for some other isotope. The claimant or the survivor may not even -- they may have, you know, known that by some other reason, and the contractor may not have done that, and NIOSH has no way of proving or disproving that that other isotope was there, and that seems to be what I hear is they -- you know, there was this incident about these unmonitored doses, these unmonitored isotopes, and you know, granted, there's no way NIOSH can go back and prove or disprove that, but that's what I hear from -- it seems like I hear from the people.

MS. ROBERTSON-DEMERS: I also ran into a

situation where this gentleman showed me his -- his dose record, and there were a lot of zeroes in the extremity monitoring field. I think he requested it through DOE. And he says I was never monitored for that. So then seeing some sort of summarized version may help them help NIOSH by identifying missing items.

MR. HINNEFELD: Well, one of the -- the fact is, does the claimant hear this stuff? Right now some dose reconstructions will include this was what the DOE reported as your total recorded dose -- we don't do it in every one, but some of them say that. What we intend to do with the new format is to explain to the claimant what records we have. We won't necessarily say page numbers, but we'll say we have a monitoring record for you that says you were monitored for external -- you know, externally from this year to this year, and internally from this date to this date via (unintelligible) --

MR. GRIFFON: Where does -- where does -- Stu, where does that occur or when does that occur?

MR. HINNEFELD: That would be in the dose reconstruction report.

MR. GRIFFON: In the report, right, okay.
MR. HINNEFELD: And so -- so they will see -- they will have the opportunity at that point to say that sounds right or this doesn't sound right, and a closeout interview -- we would have an opportunity to correct or fill in information that's missing. See, at the CATI interview we may not yet have the DOE response. We may not be able to do it at that point.
MR. GRIFFON: I'm looking at finding 11 here, at the closeout interview will the interviewer have -- then they'll have everything. Right? They'll have the full file available for them?
MS. MUNN: Yes.
MR. HINNEFELD: It's all available to them, right.
MR. GRIFFON: So at that point they -- would they likely attempt to discuss inconsistencies or is that beyond the scope of the closeout interview?
MR. HINNEFELD: Closeout interviews talk about a lot of topics and there are many -- many situations, based on a closeout interview, that require us to go back and revisit the dose reconstruction or pursue different --

additional information. I mean --
MR. GRIFFON: Right.
MR. HINNEFELD: -- that's not particularly uncommon for a -- for a case to get pended at closeout interview time while we try to chase down something that we were told during closeout interview.
MR. GRIFFON: Well, I'm specifically trying to get ahold of your -- get a handle on your response for finding 11. The interviewer's not required to have that DOE file with them or -- or on their computer screen when --
MR. HINNEFELD: Procedure 5 is the CATI interview.
MS. MUNN: CATI.
MR. GRIFFON: Oh, it's -- oh, Procedure 5 is the CATI, that's right. Okay. So at that point they wouldn't necessarily even have -- 'cause that occurs before you get all that information sometimes.
MR. HINNEFELD: It can.
MR. GRIFFON: Is that what I heard? Okay.
MR. HINNEFELD: Right, it can.
MS. MUNN: Should we add a sentence to the end of that that says this is covered by the

closeout interview, to keep there from being any further question about whether or not that's a closed item?

MR. HINNEFELD: You mean our response?

MS. MUNN: Yeah, I'm trying to figure out ways to close out --

MR. GRIFFON: Yeah, that --

MS. MUNN: -- the items on this list.

MR. GRIFFON: -- that's what I'm thinking, too.

MS. MUNN: Okay, that one's done.

MR. GRIFFON: Can -- can you say --

MR. HINNEFELD: I can do all sorts of stuff with the NIOSH response column, yeah.

MR. GRIFFON: I mean is NIOSH -- yeah, is NIOSH willing to say this is required for the closeout interview?

MS. MUNN: Can we say that? This occurs at the closeout interview. Right?

MR. ELLIOTT: Sure, I think we can make that, can't we?

MR. HINNEFELD: I think so.

MR. ELLIOTT: That it's available.

MR. HINNEFELD: It's available.

DR. NETON: I'm not sure it's required.

MR. HINNEFELD: I don't know that it's required

to be at the interview, it's available to the interviewer.

MR. GRIFFON: Well, that's different. Available is different than -- than requiring the interview to have it. I mean I'm not saying it's -- it's not acceptable, but I'm --

MR. HINNEFELD: I think -- I think the solution to this question about having the claimant -- if the question is does the claimant know what records we had available to them, you know, on them, on the case, I think the -- the fix is, the new dose reconstruction format, when you have a section for the claimant that says this was the -- these were the monitoring records we had that the DOE sent for us -- sent on this claim, this is what was available to us (unintelligible) monitoring records. We'll probably also put in there this was your total reported dose from the Department of Energy, and with the suitable caveats because frequently the Department of Energy didn't throw in any dose from their internal monitoring. They may have a long internal monitoring record with no calculation associated with it, so we have -- we're -- we

have to try to ca-- we have to put in the information we want to put in without making this too long and too technical and too hard, so it's going to be a little difficult to put this together because all this stuff -- everything we want to tell them has got to be caveated in some way or another. So --

MR. GRIFFON: Now -- now Stu, I agree with that. I'm -- I'm just saying it -- it would be different to -- I think if I were interviewer and I was required to have the person's full DOE with me when I did the closeout interview, that -- to me, as the interviewer -- would say well, I better -- I better darned well flip through this and -- and compare it with the CATI interview and -- and, you know, be prepared to address inconsistencies, discuss inconsistencies, et cetera -- as opposed to is available. That just tells me well, now if this guy raises some question on the phone, I might have to pull this DOE file out; otherwise I can probably just close this out.

MR. ALLEN: Well, Mark, it's important to realize -- this is Dave Allen. It's important to realize it doesn't have to be a one-shot

deal on this -- this closeout interview. If --
MR. GRIFFON: True.
MR. ALLEN: -- if the questions become technical, the interviewers will often tell them that they'll have to have somebody more technical call them back. They get ahold of the -- usually the HP that did the dose reconstruction and they set up a new schedule to call them back, finish it off.
MS. MUNN: Can we just close this out by saying the DOE file is available to the interviewer at the closeout interview -- at the time of the closeout --
MR. GRIFFON: That -- that -- that's -- that's what I was just discussing, Wanda.
MS. ROBERTSON-DEMERS: I think Mark's saying --
MR. GRIFFON: Available or required --
MS. ROBERTSON-DEMERS: -- that it should be a requirement --
MR. GRIFFON: -- is different, that's all, you know.
MS. ROBERTSON-DEMERS: -- that they've looked through it.
MR. ALLEN: Most claimants don't have a lot of questions on the actual file itself, so -- I

mean it seems --
MR. GRIFFON: Well, that -- that -- that's -- that's sort of my point.
MS. ROBERTSON-DEMERS: Actually --
MR. GRIFFON: You know, my point is not to be passive but to be proactive, that the interviewer would -- would, you know, have one last look at this. I mean I know that the dose reconstructor is the primar-- you know, but the closeout interviewer --
MR. HINNEFELD: I think the only --
MR. GRIFFON: -- would also --
MR. HINNEFELD: -- way to do this and be fair to the interviewer is to have a summary of some sort, like (unintelligible) describe the dose reconstructor --
MR. GRIFFON: Right, right, right.
MR. HINNEFELD: -- because these things are hundreds of pages long. Sometimes you get the same information multiple times in different formats --
MR. GRIFFON: So they'll definitely --
MR. HINNEFELD: -- and to have it -- have the interviewer go through it and -- and be able to talk to the claimant knowledgeably about it I

don't think is a realistic expectation be--
MR. GRIFFON: I think you just answered my question, Stu. So the interviewer will definitely have the -- the -- this revised DR report format in front of them --
MR. HINNEFELD: Yeah.
MR. GRIFFON: -- the whole DR report --
MR. HINNEFELD: Oh, yeah, they'll have the DR in front of them.
MR. ELLIOTT: Are we still talking about the NIOSH column?
MR. GRIFFON: So -- and then the other -- the other should be available. I agree with that then, okay.
MR. ELLIOTT: Are we still --
MR. GRIFFON: 'Cause you're going --
MR. ELLIOTT: -- talking about the NIOSH column?
MR. HINNEFELD: No, no. No, no.
MS. MUNN: I am.
MR. HINNEFELD: I think --
MR. ELLIOTT: I think you are, yeah.
MR. HINNEFELD: The NIOSH column should be -- I think the resolution of the issue would be the revised DR structure and having a summary of

the monitoring record, what -- that we received in that, in the dose reconstruction.

DR. BEHLING: I think part of the salesmanship should be to convince the person that what has been done was done with as many records as are available. Here are the records, and there's credibility behind the dose reconstruction process, and when there are gaps or uncertainties that the individual was given the benefit of the doubt by such things as hypothetical intake, et cetera. And I think it -- it's part of the salesmanship that says we didn't fish these numbers out of thin air. They're part of a record, and when they're not part of a record we've given you the benefit of doubt by putting in missing doses for neutrons and photons and hypothetical intakes, et cetera, et cetera, and in the process perhaps assure the individual that what he has been assigned as a dose is -- is perhaps -- if it's not just fair, it's perhaps more than fair and claimant-favorable and -- and satisfy that curiosity, how did you come up with these numbers.

MR. ELLIOTT: I would say the NIOSH column

should say that we are going to roll out this new dose reconstruction report and implement it. To roll it out we're going to have to look at our script language that is used, not only for the CATI but for the closeout interview, and make sure that there are certain goals that is -- is to -- that are defined to be the purpose of that closeout interview. And many of what you just outlined for us, Hans, I think are central to that. I think we could commit to that, we need to look at our script, we need to carefully consider how to roll out, you know, this new dose reconstruction reporting mechanism and tool and -- and take in account a lot of what we've heard here this morning.

MR. GRIFFON: Yeah, I -- I think -- Stu, I apologize, I think you just answered number 11 for me. I -- I think if -- Wanda -- I think you were saying the same thing. If we revise the NIOSH response, add on a last line saying DOE file will be available at the closeout interview, I think that satisfies it -- for me, anyway.

MS. MUNN: Just enhance it so that it meets Hans's test for bedside manner, which is really

--

MR. GRIFFON: Well, and --

MS. MUNN: -- what we're talking about here.

MR. GRIFFON: -- but -- and there's a difference between the DOE file and the DR report --

MS. MUNN: Yes.

MR. GRIFFON: -- and that's what I was -- I was --

MS. MUNN: Yes.

MR. GRIFFON: -- sort of merging those two, but the DR report will be in the hands of the interviewer so -- at the closeout interview, so -- and -- and the enhanced DR report will have more of this -- you know, that -- that chance for the interviewer to look down and -- and sort of look for these red flag things as they're doing the closeout interview. That's kind of what I was getting at, and I don't think you necessarily need the whole DOE file to be able to do that.

MS. MUNN: No.

MR. GRIFFON: At least with this enhanced report as described, yeah.

DR. BEHLING: In fact --

MR. GRIFFON: Right.
DR. BEHLING: -- Mark, the full DOE file, especially since in many instances will be issues involving periodic urinalysis, chest counts -- it's almost undecipherable to someone who's not familiar with the format of the records or understands their content. You can't possibly explain that to --
MR. GRIFFON: Oh, no, yeah, yeah.
DR. BEHLING: -- especially -- unless you are a dose reconstructor and bona fide health physicist, those records would mean very little. But for instance, the summary external dosimetry sheet, which does not involve other people's data, might be a very useful tool that says we have records that you were monitored for external neutrons, external photons, and these are the numbers, and these are the additional val-- assignments that we gave for those cycles where the report came back as a zero, so these are all the things that we added to that number. And I think people probably have a pretty good -- especially if it's the -- he himself who's being interviewed here, he will have a pretty good understanding what his

lifetime dosimetry was --

MR. GRIFFON: Right.

DR. BEHLING: -- and he will get to understand that the records are accurate, that the records have been amended for missed doses involving zero or blanks, et cetera, et cetera. And I think that would probably be a very useful component as part of the closeout interview.

MR. GRIFFON: Yeah, I --

MS. MUNN: Whoa, you went static.

MR. PRESLEY: Something happened. You still there?

MS. MUNN: Yeah, we're still here.

MR. GIBSON: Hello?

MR. PRESLEY: Hello?

MS. MUNN: Hello?

MR. GIBSON: I can hear you, Bob.

MR. PRESLEY: Hey.

MS. MUNN: Mark has overwhelmed us.

MR. PRESLEY: There's a tremendous amount --

MS. ROBERTSON-DEMERS: I think we have a lot of static.

MR. PRESLEY: Tremendous amount of static on the line.

MS. MUNN: Sure is.

DR. WADE: Okay, who's on the phone right now?
MR. PRESLEY: Bob Presley.
DR. MAURO: John Mauro.
MR. GIBSON: Mike Gibson, and a lot of static.
MS. MUNN: Lot of static, yeah.
(Pause)
MS. MUNN: Somebody's doing something that makes it go away.
DR. WADE: (Unintelligible) doing something right now is the source of the static.
MR. PRESLEY: I'm going to hang up and I'll dial back in. This is Bob Presley.
DR. WADE: Thank you.
MS. MUNN: Okay, thanks, Bob.
MR. GIBSON: I'm going to dial back in, too.
DR. WADE: Okay.
MS. MUNN: Thanks.
DR. WADE: Who else is on the line?
DR. LIPSZTEIN: I am, this is Joyce Lipsztein.
DR. WADE: Is it possible for you to hang up and dial back in?
DR. LIPSZTEIN: Okay.
MS. MUNN: Oh, wait --
DR. WADE: Wait a minute --
MS. MUNN: -- stop, stop. It went away.

DR. WADE: Is anyone on the line?
MR. KOTSCH: I'm still here.
DR. WADE: Okay, you're good. Anyone else?
(No responses)
Okay, let's see what happens as people dial back in.
(Pause)
We did pretty well for a while so we can't complain.
MS. MUNN: Have to tell Mark to get off that cheap phone.
MR. GIBSON: Mike Gibson, I'm back.
MS. MUNN: Good.
DR. MAURO: John Mauro back, and I -- and I don't hear any static.
MS. MUNN: No.
MS. BEHLING: It was Mark.
MS. MUNN: Two of you are all okay -- three of you are all okay. Four, I guess.
MS. BEHLING: It's Mark.
(Whereupon, a recess was taken from 11:30 a.m. to 11:33 a.m.)
DR. WADE: (Unintelligible) will give us sort of a diversion from the -- the CATI interview discussions. This working group, which is the

working group that looks at individual dose reconstruction reviews, procedures reviews and two site profiles -- right now we're looking at Hanford and Y-12 -- had scheduled this --

MR. GRIFFON: Rocky and --

MS. MUNN: Not Hanford.

MR. GRIFFON: -- Rocky and Y-12.

DR. WADE: Rocky Flats -- Rocky Flats, so I have -- what did I say here? Rocky Flats and Y-12.

MS. MUNN: Yeah.

DR. WADE: Have scheduled a face-to-face meeting for Cincinnati on the 27th of February. That's two weeks from today.

MR. PRESLEY: Right.

DR. WADE: Mark has raised to my attention the fact that he has a conflict on that day.

MS. MUNN: Well, fix it, Mark.

MR. GRIFFON: And I picked these days out, too.

DR. WADE: Let me -- let me throw out some options, not all of them terribly attractive. One of the things we could -- Mark has a -- a conflict -- a personal conflict on the evening of the 27th that requires him to be home.

MR. GRIFFON: Right.

DR. WADE: We could conceivably hold the meeting in Boston. We could conceivably involve Mark by telephone. We could reschedule the meeting. There are a number of options available to us. I thought we would have a discussion. Mark, do you want to say any more?

MR. GRIFFON: Yeah -- no, I mean or we could -- we could move it to the week prior. I know that -- that we've got a lot to do prior to that meeting, so --

MS. MUNN: You're -- you're getting pale faces from NIOSH. I don't think they can do that.

DR. NETON: Mark, we did plan on using every day up till that meeting to try --

MR. GRIFFON: I figured that, yeah, yeah.

MS. MUNN: I don't have any problem with Boston.

DR. WADE: What about thinking outside the box and bringing the mountain to you?

MR. GRIFFON: Well, that's -- yeah, that'd be great. It's lovely this time of year. Yeah, 23 inches of fresh snow in my back yard.

MS. MUNN: That's wonderful. All right. You can provide the skis.

MR. GRIFFON: Yeah.

DR. WADE: Again, this -- NIOSH -- we usually meet here 'cause it's convenient for NIOSH, and what about taking your act on the road?

DR. NETON: Well, we did -- we did plan on having a number of ORAU participants, and I don't know how that would --

MR. GRIFFON: Yeah, I know that's --

DR. NETON: -- whether they're going to be -- I guess many of them are going to be from out of town anyway, so they're going to be traveling either way, so maybe that's not --

MR. GRIFFON: The other -- the other question, Jim, maybe is if we moved in -- into like March 6th. I don't know if that's too late, but I think you need more time rather than less, actually.

DR. NETON: I don't disagree with that, Mark. I mean --

MR. GRIFFON: You know, given what we talked about in the last calls, I'm -- I'm -- you know, there's a lot to be -- you know --

DR. NETON: Well, we --

MR. PRESLEY: I don't have any problem with March 6th.

MS. MUNN: Well, I have a problem with it.

MR. GRIFFON: Or that -- that week, I meant, that week in general, you know.
MS. MUNN: I have a problem with it, and one of the -- one of the problems that I have with it is you have to remember, this is not the only working group we now have.
MR. PRESLEY: Right.
MR. GRIFFON: Yeah.
MS. MUNN: And we have the NTS issues that are coming up --
MR. PRESLEY: Well, that's what I --
MS. MUNN: -- and we've already postponed that, we've knocked that off the 28th. And I guess my feeling is if we're going to start pushing this workgroup back into the 6th, then we're just really muddying the water for other -- for other workgroup schedules.
MR. PRESLEY: Well, what I was wondering about is if we pushed this thing back to the 6th, would we be able to do the 20-- the NTS on the 7th? You know, that's -- that's --
MS. MUNN: I -- I've got a caucus at my house on the 7th --
MR. PRESLEY: Okay.
MS. MUNN: -- that is almost impossible for me

to change.

MR. PRESLEY: No problem.

DR. NETON: I've got outside meetings in Oak Ridge on the 7th and 8th both, myself.

MS. MUNN: So my -- my suggestion would be we go to Boston, if it's possible for us to do that.

MR. PRESLEY: I've got no problems coming -- coming to Boston on the 27th if -- you know, if you can have this thing out at the airport where we don't have to go into town.

MS. MUNN: Yeah.

MR. GRIFFON: Yeah, there's a Hilton right at the airport. I don't know if that's the reason-- you know, I guess LaShawn will have to check that out, but...

DR. WADE: Well, let me take it as a task. We'll start to work it now and hopefully have you an answer even this afternoon.

MR. GRIFFON: All right.

DR. WADE: You know, flying to Cincinnati for some of us, or Boston, is not that different, just for the people in Cincinnati.

MS. MUNN: Yeah.

MR. GRIFFON: Right. Okay.

DR. WADE: Okay. So Larry, pursuing the possibility of a Boston meeting, acceptable?
MR. ELLIOTT: Yeah, I think we'll -- we may be limited in number of staff we'll have available to attend, but --
DR. NETON: But they'll be on the phone, for sure.
MR. ELLIOTT: -- they'll be on the phone.
DR. WADE: Okay.
DR. NETON: We'll try to get -- see what we can do.
DR. WADE: So let -- now again, for my edification, the 27th meeting was to focus on what issue?
MS. MUNN: Y-12 and Rocky.
DR. WADE: Okay, so both Y-12 and Rocky.
MS. MUNN: Yeah.
DR. WADE: Okay, I'll get to work over the lunch hour to see what we could do in terms of the Boston -- Logan Airport, and your job is to work on the snow, Mark, that's all.
MR. GRIFFON: Okay. We haven't -- it hadn't snowed all January, so I think we might be in a make-up mode here.
DR. WADE: That's encouraging.

MR. GRIFFON: Yeah.
DR. WADE: Okay, back to the much more interesting business of discussing Proc. 5.
MR. GRIFFON: Yeah. So we're on Proc. 5 item 12 now. Right?
MR. HINNEFELD: I believe this is the same issue that we've talked about earlier.
MR. GRIFFON: Yeah, and I think we've covered this.
MS. MUNN: That's done, and not much you can do about that.
MR. PRESLEY: There's one comment I have on what -- what Hans had a while ago about making available the data to these people.
MS. MUNN: Uh-huh.
MR. PRESLEY: It's my perception that -- that I'd say 90 percent of the people wouldn't know what they got.
MS. MUNN: I'd say 98 percent of them wouldn't know what they got.
MR. PRESLEY: I was giving them the benefit of the doubt.
DR. MAURO: John Mauro, I'd take it a step further. I would -- I think in many cases it'll do -- cause more confusion and

frustration --

MR. PRESLEY: Oh, I do, too --

DR. MAURO: -- than it would --

MR. PRESLEY: -- definitely.

DR. MAURO: -- relieve.

MS. MUNN: If our -- if one of our tasks is to make the claimants comfortable, then there are times when excess information does not meet that criteria.

MR. PRESLEY: I agree.

MR. GRIFFON: Yeah, I think -- I think we're better off focusing on improving the DR report rather than -- rather than, you know, making the DOE files readily accessible. I mean --

MR. PRESLEY: I agree --

MR. GRIFFON: -- they certainly have a legal right --

MR. PRESLEY: -- 100 percent on that.

MR. GRIFFON: -- yeah.

DR. MAURO: I'd like to add, I think we need to start thinking about bedside manner side as much as we're thinking about the technical side.

MR. PRESLEY: I agree there, John. This is Bob Presley.

MR. GRIFFON: Okay. So let's -- let's move on with that -- those comments. Let's go to 13. I think we've -- we've got 12 under consideration under the other items, so -- I don't know that we can talk much more about that.

MS. MUNN: Yeah, I don't think so. Response is applicable to the earlier stuff.

MR. GRIFFON: Yeah. And number 13 --

MR. HINNEFELD: 5-13 actually has two parts. The second part, CATI has many gaps, is one that was commented on earlier. We said --

MR. GRIFFON: Right --

MR. HINNEFELD: -- we were going to (unintelligible) --

MR. GRIFFON: -- you're going to evaluate that so that falls under the evaluation step. Right?

MR. HINNEFELD: The interviewer training appears to be insufficient, at least in some cases. I think the only thing I can do maybe is provide you with a summary of the training they've received. It's not like they got their initial training and then stopped. I mean they do continuing education with them periodically,

and I can probably assemble a summary of it. Again -- and depending upon -- I think -- I may be naive, but I believe you'll find the interviewers, the ones who've been here for a while, and I think most of them have been here for quite a while, probably a lot more savvy today than they were two years ago when they were doing interviews, so -- but I can -- I can compile this training. ORAU feels that their interviewers are trained sufficient to the task, that they're trained to do what they're asked to do.

MR. GRIFFON: Okay. Yeah, I think providing a summary of the trai-- you know, a summary of the training would be good.

MS. ROBERTSON-DEMERS: Yeah, and we'd previously asked to see the DOE complex training module.

MR. HINNEFELD: Yeah, uh-huh. Right.

DR. NETON: If we can release it.

MS. ROBERTSON-DEMERS: (Unintelligible)

MR. GRIFFON: Okay, number 14 is the coworker question, and I think this falls under the earlier discussion of coworker triggers.

MS. MUNN: Uh-huh.

MS. ROBERTSON-DEMERS: Yeah.
MR. GRIFFON: You know, and -- and I think, you know, how that -- how that's worded specifically, but I think that should be considered, anyway -- how that's worded is up to NIO-- you know, NIOSH.
MS. MUNN: Yeah, this response seems adequate to me, based on our previous conversations about it. OCAS is going to include some extra language. Right? Isn't that --
MR. HINNEFELD: Right.
MR. GRIFFON: And that's in the DR reports, but it does-- that doesn't speak to the -- and I agree that's good, but that doesn't speak to the question of whether -- whether or not to require coworker follow-up or when to require coworker follow-up, you know.
MS. MUNN: But I thought we'd already agreed -- there were earlier discussions that there was going to be an attempt to identify some criterion for that trigger.
MR. GRIFFON: Yes.
MR. PRESLEY: Right.
MS. MUNN: Didn't we agree to that?
MR. GRIFFON: That's what I'm saying, it falls

into that, yeah.

MS. MUNN: Yeah.

MR. GRIFFON: Yeah. I guess it's (unintelligible) --

MR. PRESLEY: As required, yep.

MS. MUNN: As required -- when required.

MR. PRESLEY: Right.

MR. GRIFFON: Okay, I think we're on to fif-- 5 number 15.

MR. HINNEFELD: Off the top of my head I don't remember the details of the comment.

MR. GRIFFON: Yeah, I think they were here --

MR. HINNEFELD: I think it -- it may fall into the general discomfort with the claimant, though, with the interview questionnaire.

MS. ROBERTSON-DEMERS: Actually I --

MR. GRIFFON: It looks like it does, yeah.

MR. HINNEFELD: Do you remember?

MS. ROBERTSON-DEMERS: I think I -- I think I remember this. When you ask about an incident and they say yes, you ask for follow-up information. When you ask other questions, you don't. And this -- this would go back to reviewing, as a part of the 90 procedure, the most recent interview.

MR. GRIFFON: So does this fall under evaluate the gaps in the...

MR. HINNEFELD: Would it fit into that, evaluating gaps in the interview -- interview questionnaire?

MS. ROBERTSON-DEMERS: Yeah.

MR. HINNEFELD: Okay.

MR. GRIFFON: All right, so this falls under that earlier action, Stu. Correct?

MR. HINNEFELD: Okay.

MR. GRIFFON: All right.

MS. MUNN: Now --

MR. GRIFFON: Now we're on --

MS. MUNN: -- Proc. 17.

MR. GRIFFON: -- Proc. 17 --

MS. MUNN: Yay.

MR. GRIFFON: -- (unintelligible), Wanda.

MS. ROBERTSON-DEMERS: And actually this one's been -- been replaced by Procedure 90 --

MS. MUNN: Uh-huh.

MS. ROBERTSON-DEMERS: -- so it's going to be included in our review.

MS. MUNN: Yeah.

MR. GRIFFON: Well, they've all been kind of replaced by Proc. 90. Right?

MS. ROBERTSON-DEMERS: Yeah.
MR. HINNEFELD: Well, in this -- in this case, Proc. 90 I think added additional information that Proc. 17 didn't have.
MS. ROBERTSON-DEMERS: Right.
MR. GRIFFON: Okay. So this first one on definitions --
UNIDENTIFIED: (Unintelligible) not in here.
MS. ROBERTSON-DEMERS: I think NIOSH had said something about NIOSH providing an explanation for how they had reviewed Proc. 90 in relation to some of these concerns.
MR. HINNEFELD: I don't recall that. But we have -- but we have to --
MS. ROBERTSON-DEMERS: It was a -- it was a while back, yeah.
MR. GRIFFON: Okay, I think what -- I think you're right, Stu, that you say Proc. 90 is going to provide examples of what constitutes complete, so I think we -- we -- this is sort of -- the action on this is -- is we're going to review Proc. 90 as part of SCA's expanded scope. Right?
MR. HINNEFELD: Right. That one, I believe --
MS. MUNN: Yeah.

MR. HINNEFELD: -- has already been tasked to -- yeah.

MS. MUNN: Yeah, everybody's agreed to that, I think.

MR. GRIFFON: Okay, okay. So then number two we're on, I guess. All right, I guess --

MS. MUNN: That's going to be covered, also.

MR. GRIFFON: Yeah, and this is a little re-- this is a little similar. It refers to Proc. 5-01, finding 01.

MS. MUNN: Uh-huh.

MR. GRIFFON: As we look -- glance down here, are there any new that we haven't covered already in our discussions? That's the big thing, I guess.

(Pause)

Reviewer qualif--

DR. MAURO: I don't see anything new -- if anyone else sees something new.

MR. GRIFFON: I'm looking at finding number five, reviewer qualifications, that -- that falls under the training, sort of?

MS. MUNN: Yeah.

MR. GRIFFON: Is that right?

MR. PRESLEY: Yeah.

MS. ROBERTSON-DEMERS: In the familiarity with the complex.
MR. GRIFFON: I mean qualifications, to me, is sometimes different than just training. I don't know what SC&A meant by that, necessarily.
MS. MUNN: I think, based on what Kathy was saying, she was still concerned about whether or not the -- this was the concern about whether or not the reviewers had real knowledge of the site.
MR. GRIFFON: Of the site, right.
MS. MUNN: Yeah.
MR. GRIFFON: Not necessarily their educational background or things like that.
MS. MUNN: That wasn't my interpretation. Kathy?
MS. ROBERTSON-DEMERS: And knowled-- and knowledge of the claimant file and --
MR. GRIFFON: Knowledge of the claimant's file and the site, right.
MS. MUNN: Which we've already talked about.
MR. GRIFFON: Right. Okay.
MR. HINNEFELD: Also I want to point out part of our response to the previous one, to finding

number four, about eight lines from the bottom, the sentence that starts with "The HP review" -- starts in the middle of the line.

MS. MUNN: Uh-huh.

MR. HINNEFELD: The HP rev-- the HP review of the -- of the CATI is not the review that they're being talked -- that's being talked about here. This is a review of the -- of the CATI form to make sure essentially the boxes are checked and it's completely filled out. The HP review occurs at the dose reconstruction part, at -- you've got a -- you know, so they're -- I don't know that you would say there's an HP who looks at a -- strictly at a CATI interview.

MS. ROBERTSON-DEMERS: Well, I think we had some concern about the review by the health physicist and what it contained, and you --

MR. HINNEFELD: This procedure doesn't guide that. This procedure doesn't --

MS. ROBERTSON-DEMERS: Actually you have an appendix in -- in 90 --

MR. HINNEFELD: Okay, and that --

MS. ROBERTSON-DEMERS: -- that starts to address that issue.

MR. HINNEFELD: Okay. So then are the actions then to deal with that appendix to 90 and -- and what's done there?

MS. ROBERTSON-DEMERS: Well, I think it would fall into the review of -- our review of Procedure 90 and --

MR. HINNEFELD: Okay.

MR. GRIFFON: Okay.

MS. ROBERTSON-DEMERS: -- and your further evaluation where you've said we need to consider this.

MR. HINNEFELD: Uh-huh.

MR. GRIFFON: Hey, Stu, that line you referred to, could I offer a little editing, just to -- to clarify it for me?

MR. HINNEFELD: Yeah.

MR. GRIFFON: I -- I -- I would suggest maybe rephrasing that to say the HP review required by the contract is performed on the initial telephone interview by the dose reconstructor during the completion of the dose reconstruction. I -- I mean he's not really reviewing the telephone interview. It's during the entire reconstruction process. Right? Maybe that doesn't help clarify.

MR. HINNEFELD: Yeah, he prep-- yeah, he performs that while he's -- at the -- during -- you were right, during the completion of the dose reconstruction.

MS. MUNN: During the completion of the -- yeah. I don't see anything else on here that we haven't already covered.

MR. GRIFFON: I don't understand -- the only other thing I high-- I highlighted things as I went through the screen, and Proc. 17 finding seven, I don't understand what S-- and maybe I -- I need to look back at the full report, but review requirement is sound but incomplete. Sound but incomplete is a little bit vague, to me.

MS. ROBERTSON-DEMERS: Well, there's really two reviews that go on. One is basically an editorial review by the CATI interviewer, and I -- I think we're happy with that. And then there's a more detailed review by the health physicist that gets into some of the content, and that wasn't addressed in the earlier procedures, but it started to address it in 90 in that appendix.

MR. GRIFFON: And you feel the review by the

HP, that portion is incomplete or...

MS. ROBERTSON-DEMERS: Well, looking at the -- the original review of 17, it was incomplete.

MR. HINNEFELD: So this will then be after the review of Proc. 90 you would maybe change or have another opinion --

MS. ROBERTSON-DEMERS: Right.

MR. HINNEFELD: -- or have the same opinion, but...

MS. ROBERTSON-DEMERS: Right.

MS. MUNN: I only have one outstanding question, and Mark, you may already --

MR. GRIFFON: Well, where do we stand with that one before you go, Wan-- I'm sorry --

MS. MUNN: Okay.

MR. GRIFFON: -- where -- how --

MR. HINNEFELD: I think it's an after Proc. 90 review issue.

MR. GRIFFON: It's going to fall under Proc. 90? Okay. Is that agreed? All right. Go ahead, Wanda. I'm sorry.

MS. MUNN: Oh, that's quite all right. It was not clear to me, have we defined who is tracking what this workgroup considers the outstanding issues? Lew's nodding his head.

DR. WADE: I think we've decided, but let's hear Mark's answers and see if that's my answer.

MR. GRIFFON: Yeah, I'm trying -- I'm trying to track the -- the outstanding issues, is that what you're saying? Yeah, I've been keeping track of them throughout the phone --

MS. MUNN: You're the official stuckee.

MR. GRIFFON: Yeah, I'll -- I'll fill in a column and then e-mail it to everyone and we can get a consensus on that.

MS. MUNN: Okay.

MR. GRIFFON: You know, like we've done before, yeah.

MS. MUNN: Right.

DR. WADE: Now we still have the internal dose in front of us, and then we have the two sets of individual DR reviews. This might be an appropriate time to break.

MS. MUNN: Yes, it would be an appropriate time.

DR. WADE: We have a lot to do, so --

MS. MUNN: I know.

DR. WADE: -- but when do we want to be back? We want to be back at quarter of 1:00? Is that

not enough time, or --

MS. MUNN: We can try.

DR. WADE: Let's try. We won't make it, but then we'll start at 1:00 -- but no, quarter of 1:00.

MR. GRIFFON: Quarter of 1:00, okay.

MR. PRESLEY: Okay. This is Bob Presley. I'll be back on then.

DR. WADE: We'll break the call now and we'll join -- we'll be -- we'll join back at a quarter of 1:00.

MR. GRIFFON: Okay, thanks.

MR. PRESLEY: All right. Bye-bye.

(Whereupon, a recess was taken from 11:55 a.m. to 1:00 p.m.)

DR. WADE: Maybe we can have the people on the telephone identify themselves.

MR. PRESLEY: Bob Presley.

MR. GIBSON: Mike Gibson.

DR. MAURO: John Mauro.

DR. LIPSZTEIN: Joyce Lipsztein.

MS. HOWELL: Emily Howell.

MR. KOTSCH: Jeff Kotsch with Labor.

DR. WADE: Well, that's quite a collection.

MS. MUNN: That's good.

DR. WADE: And we are slowly assembling around the table, but I think we have a sufficient body of intellect that we can begin.

DR. BEHLING: Critical mass.

DR. WADE: (Unintelligible) say that, but --

MS. MUNN: This is -- this is a hopeful man.

MR. GRIFFON: Hey, I -- I'm actually hopeful, too. I think -- I'm looking in my notes for the internal dose section, and I believe we can skip to page -- maybe I'm wrong, but skip to page 16, that's the first page I saw any note for more discussion needed.

MS. MUNN: On the first set of -- on --

MR. GRIFFON: Oh, I take that back -- oh, no, no, no, I -- okay, the first note I have is on OCAS IG-002, finding number six. That's on page 13, but that refers to TIB-8.

MS. MUNN: We're going back to procedures (unintelligible).

DR. WADE: We're on internal dose procedures is where we are.

MS. MUNN: Right.

MR. GRIFFON: I'm sorry, yeah, internal dose procedures.

MS. MUNN: Page 16.

MR. GRIFFON: And -- and I -- all my notes from the last meeting indicate up through page 16 we had pretty much concurrence. It was a lot of the edit-- editorial stuff on the implementation guide and either it would be edited or that there was no revision necessary. And I'll make those edits and put them in the Board action column and then we can, you know, send them around to make sure everybody is in agreement with that. But I don't think there was any further discussion needed on those. I think the real discussion item was -- the first one was on page 16, TIB-8 -- TIB-8, finding number one, and I have a note that says we -- you know, SC&A preferred if Joyce was on the call for this and -- and Joyce is on the call today, so I think we should start there, if it's okay.

DR. BEHLING: Joyce -- Joyce, before you start -- this is Hans --

DR. LIPSZTEIN: Yeah.

DR. BEHLING: -- I'm speaking in behalf of our court reporter. Right now you're coming through loud and clear and -- and he has asked me to ask you to either use a hand-held

telephone and speak directly into it because he's obviously concerned about making sure he captures everything that you're about to tell us so -- so that he does not have to ask for a repeat. If you could, speak loud so that he has every chance to capture everything he needs to.

DR. LIPSZTEIN: Okay, I'll try to.

DR. BEHLING: You're -- you're sounding very good.

DR. LIPSZTEIN: Okay, good. Okay. This is a voice over ID phone, so I hope everything is okay.

MR. GRIFFON: All right, so TIB -- TIB-8, finding number one, Joyce, is where we're at, and maybe -- maybe we can do this similar approach that we've done so far, which is Stu, you can maybe give an overview on your response.

DR. LIPSZTEIN: Are you talking about TIB number eight?

MR. GRIFFON: Yeah, TIB-008-01. It's on page 16 --

DR. LIPSZTEIN: Okay.

MR. GRIFFON: -- in my printout.

DR. LIPSZTEIN: Okay, this is a long discussion about the mouth, the -- where -- where to put the mouth, and I think this is going to be clarified now because ICRP has published a new GI tract model and it puts a lot of clarification on it.

DR. NETON: Is that in draft form, Joyce, or -- is -- is the ICRP...

MR. GRIFFON: Is that a draft, Joyce, or is that...

DR. LIPSZTEIN: I'm sorry?

MR. GRIFFON: Is that a draft?

DR. LIPSZTEIN: No, this is -- this was just published now, and I think a lot of the discussions was that NIOSH did not accept the fact that where to -- to put the mouth and which kind of compartment should it be in, and -- well, we -- we at SC&A were following exactly what the ICRP was doing. But since now we have a new GI tract, maybe it's better if we -- if we could ask people from NIOSH to read the new GI tract model and then we'll discuss again where -- where the mouth would be in.

MR. GRIFFON: What is the publication number on that? Where -- where is it published?

DR. LIPSZTEIN: It's -- it's published by the ICRP.

DR. NETON: Do you have a number?

MR. GRIFFON: A document number --

DR. LIPSZTEIN: (Unintelligible) the number of it, yeah. I -- if you want to wait. You want to wait, I'll check it.

MR. GRIFFON: Sure, or you can -- yeah.

DR. LIPSZTEIN: You want to wait, I'll just go into the ICRP -- or I can send you the number of it 'cause it was (unintelligible).

MR. ALLEN: I've seen the draft of that.

DR. LIPSZTEIN: So we'll -- we are discussing something that was changed, so I think it's better to discuss it in -- okay.

MR. ALLEN: Joyce, this is Dave Allen. Are you saying that publication clarifies via the mouth part of the respiratory tract?

DR. LIPSZTEIN: Yes, it does. It does, it does. It does.

MR. ALLEN: Is it like an annex to that publication or...

DR. LIPSZTEIN: No, it's the new GI tract model, because they had a problem with the new human GI -- animal -- they call it the head,

the human alimentary tract, it's the new GI tract, and they had a problem exactly with the mouth because the mouth was part of the -- of -- of the lung model, and now it's part of the human alimentary tract. So most of the things that we are discussing here, they were discussed by the ICRP, so maybe it would be better to -- you know, for the people from NIOSH to look at the new ICRP on the human alimentary tract and then we'll discuss it again to see if we accept what the new ICRP is saying about it, how much of it -- it's already on the -- the NIOSH procedures and -- and what's different. I think it's...

MR. ALLEN: Yeah, that seems reasonable to me to get -- I can't really talk to it today. I've seen the draft of that, but I haven't pored over it in detail. You say it is published now, though?

DR. LIPSZTEIN: Yes, it's published now. I can try to send you the -- by e-mail for whoever wants the --

MR. ALLEN: Yeah, it'd probably be the quickest --

MR. GRIFFON: Yeah --

DR. LIPSZTEIN: -- new -- uh-huh, because I think it's better if we discuss when we see it.
DR. NETON: Okay.
MR. ALLEN: Okay.
DR. LIPSZTEIN: So I suggest that we postpone this discussion to -- to see if NIOSH agrees with the new ICRP model --
DR. NETON: I'm not sure we're going to disa--
DR. LIPSZTEIN: -- (unintelligible) the mouth is and -- and other things.
DR. NETON: I'm sure we'll agree with it, Joyce. How we apply it might be a different issue.
MR. GRIFFON: That's the question, yeah.
DR. LIPSZTEIN: No, because it's different from what it was, so --
DR. NETON: Okay, good, we'll look.
DR. LIPSZTEIN: I think it's more on what NIOSH was doing than before.
DR. NETON: Okay.
MS. MUNN: So who is Joyce going to send that information to?
DR. LIPSZTEIN: I'm sorry? I'm sorry?
MS. MUNN: I was asking who you were going to send the information to.

DR. LIPSZTEIN: Who do you want me to send -- I can send it to Jim, I can send it to --

DR. NETON: Yeah, just send it to me, Joyce, I'll -- I'll pass it on.

DR. WADE: And then send a copy to Mark, as well.

DR. LIPSZTEIN: Okay.

MR. GRIFFON: Right.

DR. LIPSZTEIN: Okay, I will do it. I'll do it. I'll do it today. Okay?

DR. NETON: Okay.

MS. MUNN: Thank you.

DR. LIPSZTEIN: When we finish.

MR. GRIFFON: So this one's on hold -- on hold pending a review of that model.

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: Okay. And I guess along with that would be some sort of not only review on the model, but an assessment of the impact of any changes --

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: -- in that approach versus the old approach.

DR. NETON: Yeah.

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: Yeah. Okay.
DR. LIPSZTEIN: So I suggest we skip TIB-8 and I'll send to Jim the new GI tract model, and then he'll distribute (unintelligible) fastest way?
DR. NETON: Yes.
DR. LIPSZTEIN: And then we'll come with that discussion again.
MR. ELLIOTT: Well, I don't want to throw a monkey wrench into the works here, but are we getting the cart before the horse? Our rules say that we will utilize international consensus -- you know, we'll examine it, we'll consider it and we'll utilize it as we -- as we think best fits the circumstances.
DR. LIPSZTEIN: I'm sorry, I didn't hear.
MR. ELLIOTT: Joyce, this is Larry Elliott. I'm worried that we're getting the cart before the horse a little bit here. Normally we would pick up any international consensus standard that's just been released and look at it and then make an evaluation ourselves and then make a determination on how that will be applied, if so. We have some regulatory process we have to adhere to in that, and we would put out a

program evaluation review that would examine, you know, whether or not -- if we so chose to implement it, we'd put out a program evaluation review on completed cases and how that -- that might affect those and what actions we would need to take.

I don't want to get -- I don't want it to be lost that this comment says -- I think it says -- that there's some un-- there's -- guidance on the use of certain organs as surrogates is not clear.

MR. HINNEFELD: No, that's a different finding, isn't it?

MR. ELLIOTT: This is OL-8-01, I thought that's what you were talking about. And if we ha-- if this is a valid comment --

MR. HINNEFELD: Oh, you're right, you're right. Sorry.

MR. ELLIOTT: -- you know, I think it's well and good that we know about ICRP committee releasing a new standard; as an international standard, we'd pick that up and look at it. But are we getting the cart before the horse, Jim, or --

DR. NETON: No, I think, Larry, what Joyce is

saying is that -- that the lung model itself is not as clear-cut as it need-- it should be, possibly, on the dose reconstruction for the mouth when you have an inhalation exposure. And Joyce is suggesting that they have clarified what role the mouth plays in inhalation versus ingestion in this new document --

MR. ELLIOTT: Okay.

DR. NETON: -- and my sense is -- I'm hopeful, it sounds like she may be saying that it's sort of validating what we may have been doing.

MR. ELLIOTT: All right.

DR. NETON: And if that's true, that's -- that's great.

MR. ELLIOTT: I see. I see.

DR. NETON: Then we can -- we're not going to adopt the new GI tract model right this second, but --

MR. ELLIOTT: Certainly if there's a simple solution to this comment and that's relevant to that solution, we want to --

DR. NETON: Right, and I think that's where we're heading. We just --

MR. ELLIOTT: I understand that.

DR. NETON: -- maybe use this to help -- help flesh out the issue in some more detail.

MR. GRIFFON: But to go back to what Larry said, actually -- I'm sorry, go --

DR. LIPSZTEIN: Yes, because what happens if the ICRP went into most of the same discussions that we are having here about the mouth, and they had some new conclusions and they -- they -- they have done it a little bit different from what it was before, so it's better to look at it before we -- we try to discuss it ourselves again.

MR. ELLIOTT: Understood. I thank you.

MR. GRIFFON: Can I go back to -- to -- although Larry did point out in the finding it says guidance on the use of certain organs as surrogates, and this mouth question is given as an example. Are there other -- are there overall concerns in that guidance or is it specifically just -- is it just that one instance or is it -- other concerns in there?

MR. ALLEN: I think it was just various tissues in the mouth, if I'm not mistaken on that. It -- it's all the same issue, but there's more --

DR. NETON: Yeah, you've got the whole cavity,

you've got the tongue, you've got a number of (unintelligible) --

DR. BEHLING: Salivary (unintelligible) --

MR. GRIFFON: Okay, that was it, I was trying to remember what was --

DR. LIPSZTEIN: Yeah, it's all -- it's all in the same -- the same region.

MR. GRIFFON: Okay. Okay.

MR. ELLIOTT: So this parenthetical --

DR. MAURO: John Mauro. To get back to Larry's --

MR. ELLIOTT: -- is specific to the concern. It --

DR. MAURO: -- question, though, so do we --are we --

MR. ELLIOTT: -- is an answer.

DR. MAURO: -- in agreement that the guidance that is currently provided in OTIB-8 is somewhat ambiguous and -- I mean -- or do you folks feel that -- that the guidance that you currently are using is not a -- in other words, I'd like -- I think -- I think Larry hit the nail on the head. Does NIOSH agree that there is ambig-- are ambiguities in TIB-8 and -- and for -- and the solu-- the action that's going

to be taken is to look into clearing those ambigui-- ambiguities up in light of the new ICRP?

MR. ALLEN: Well, I'm not sure the -- this is Dave Allen. I'm not sure -- you know, Joyce, you can speak for -- but I'm not sure the comment really was that the guidance is ambiguous, more that the basis for the guidance was --

DR. NETON: Right.

MR. ALLEN: -- ambiguous.

MR. GRIFFON: Right.

MR. ALLEN: Is that true, Joyce, or --

DR. LIPSZTEIN: Yes.

MR. ALLEN: Okay.

DR. LIPSZTEIN: Yeah, what I was telling is that the -- the -- the TIB.008 was not in accordance with the ICRP, but now the ICRP has issued a new document where it discusses specifically those organs that were not in agreement, so I think it's better to look at it first and then discuss it again.

MR. GRIFFON: It might -- it might help us --

DR. LIPSZTEIN: Because obviously --

MR. GRIFFON: -- resolve it.

DR. LIPSZTEIN: -- obviously NIOSH -- obviously NIOSH were not the -- gave an -- a lot of examples why they did not feel the ICRP was right. That's why they did not allow the -- what the ICRP indicated to do. And what I'm saying is that the ICRP went into discussion on those same organs and they made a -- they issued a new document, so we should look at this new document and then come back to the discussion again.

DR. NETON: Yeah, I think that's fair.

MR. ELLIOTT: I think everybody here --

DR. LIPSZTEIN: In other words, some of the things that we both hear are old. Some of the things that NIOSH justified are old also in view of the new ICRP, so this was done a long time ago. And we have new things from the ICRP, so probably we should discuss it again, the arguments of the ICRP again, the arguments of NIOSH again, in view of the new things. I would feel it -- better.

MR. ELLIOTT: We agree and we accept that.

DR. LIPSZTEIN: If NIOSH still doesn't agree with the ICRP, okay, so we'll say okay, we'll discuss it again, but if NIOSH now will agree

with the ICRP way...

DR. WADE: Okay, let's move on.

MR. GRIFFON: Okay. The next -- the next one that I have past TIB-8 -- TIB-8, the next item I have that has more discussion written on it was page 18, it's ORAU-OTIB number two, finding number one, it's at the very bottom of the page.

MS. MUNN: Uh-huh.

MR. GRIFFON: The guidance not written in a clear and logical manner, the ten -- ten and 20 times the ten percent of the maximum personal (sic) body burden --

DR. LIPSZTEIN: Oh, okay.

MR. GRIFFON: Someone can speak to that, either -- Stu, if you -- or Jim Neton, I'm not sure who was presenting this, but...

MR. HINNEFELD: Well, our -- our initial take on reading the comment here is that the -- the descrip-- the logical thinking isn't very clear is we're kind of in agreement with that. It's not written terribly clearly, and so you know, we can make editorial revisions to the procedure to more -- to maybe give a more clear explanation of why we chose those numbers. But

one thing that -- you know, to keep in mind during discussions of TIB-2 is that, you know, this is the hypothetical intake model and it's really a basis for determining an implausibly large intake for -- for this hypothetical exposure situation. So you know, before we get, you know, too far down the road -- you know, naturally we always want to be clear, we want to write clearly, but you know, bear in mind that this is for -- it was -- this approach is put together for that purpose, it's to come up with a hyp-- an implausibly large intake that can be used on these hypothetical cases -- hypothetical intake cases.

MR. ELLIOTT: Implausible overestimate or -- you said an implausible --

MS. MUNN: Yeah.

MR. ELLIOTT: We're not talking about driving something to implausibility. Right?

DR. NETON: Yeah, you need to be careful when you say implausible. I think it's a -- it's a bounding overestimate, I think is what I'd --

MR. HINNEFELD: Right --

DR. NETON: -- prefer to characterize that.

MR. HINNEFELD: -- bounding overestimate.

DR. NETON: So it's a bounding overestimate for the -- for the particular group of claimants to which this was applied. You have to keep that in mind, as well. This is not to be applied --

DR. LIPSZTEIN: Could you speak a little bit louder?

DR. NETON: Sure. We viewed it as a bounding overestimate, and we apply it to a very specific group of claimants. And I think that is those claimants who have what we would call these non-metabolic cancers so that it's a very large intake and it allows us to demonstrate that even under those bounding overestimating conditions that the case is not compensable. So I think the trick is not that it is completely grounded in -- in exhaustive review of the site exposure conditions, but is it indeed a bounding for the -- for the person to whom this is being applied.

MR. GRIFFON: So Jim, you would -- you would change the last phrase in that response? 'Cause it says larger than credibly could have been received. That suggests that plausibility sort of phrase.

DR. NETON: Yeah, I --

MR. GRIFFON: Would you -- would you have changed that to -- to developed as a bounding overestimate approach --

DR. NETON: I would prefer that language, myself. I mean we have to be sensitive to these implausible conditions now. I mean we're --

MR. GRIFFON: I'm asking you, though. I mean this is your --

MR. ELLIOTT: Can't they be the same?

MR. GRIFFON: -- response, so I'm asking you.

MR. ELLIOTT: Are those the -- aren't the -- can't those be the same thing?

DR. NETON: What's that?

MR. ELLIOTT: The larger than credibly -- larger than credible?

MS. MUNN: Larger than credibly could have been received.

MR. ELLIOTT: Credibly could have been received, and still be a bounding dose?

DR. NETON: Yeah, I'd --

MS. MUNN: That sounds like a bounding dose to me.

DR. NETON: Yeah.

MR. GRIFFON: I think so, okay --

DR. NETON: I think we have to be careful. I don't know that implausible is the right word. That was one thing that I was --

MS. MUNN: Well, we don't have implausible.

DR. NETON: Credibly bounding --

MS. MUNN: We used credibly, that --

DR. NETON: -- yeah, that --

MS. MUNN: -- makes sense to me, it --

MR. GRIFFON: Yeah, okay.

MS. MUNN: Because those doses are -- let's be truthful about it, those doses are not credible, they're just stretching the limits, and we're back to that same old thing that I keep leaning on about misleading people about what their doses might have been.

DR. LIPSZTEIN: What I think about it is that the way it was done was all based on ICRP-30 and so sometimes you take some nuclides and it's not only uranium, and this factor that -- used by NIOSH is not always claimant-favorable.

DR. NETON: I don't think it was based on ICRP-30 -- or 2, for that matter. It was based on an amount of intake. It happened to be this ten percent of the maximum permissible body burden, which is old ICRP-2 nomenclature, but

the reality is that we believe that that -- the value that happened to correspond to ten percent MPBB is a bounding estimate. We're not -- and then we would do the dosimetry based on the 66 and all the other models, so --

DR. LIPSZTEIN: No, now if you -- the ten percent maximum permissible dose -- okay, you've got ten percent of the maximum permissible dose --

DR. NETON: Body burden.

DR. LIPSZTEIN: -- then you take ten to 20 times the ten percent, and this ten to 20 times is the one -- the thing that I'm questioning.

DR. NETON: That there is no rationale -- well-documented rationale for that, is that what you're questioning?

DR. LIPSZTEIN: Exactly. You -- you -- you justify it in terms -- using the ICRP-30 model, and when they -- you -- you go to -- to the new models you cannot justify it anymore.

DR. NETON: I don't --

DR. LIPSZTEIN: (Unintelligible) -- you know, of course the ten percent is something arbitrary that you are justifying as that they couldn't possible get it. Let's say we accept

it, but the problem is the ten to 20 times the ten percent.

DR. NETON: Okay. Now I think -- I'll start off with Stu's response then.

DR. LIPSZTEIN: And if they -- your answer is that for uranium we recognize that, so you use the factor as (unintelligible). What I'm thinking is that there are other radionuclides that have the same problem as uranium.

MR. HINNEFELD: Well, I think we can clarify the reasoning behind it. I think there's -- there's sufficient -- there's other information in TIB-2 that kind of explains what -- why we think it's bounding in terms of what kind of a chronic exposure would this translate into, so -- but certainly TIB-2 can be clarified editorially to -- to make that -- that link better, there's no doubt about that.

DR. NETON: Yeah.

DR. BEHLING: Let me make a --

DR. LIPSZTEIN: (Unintelligible)

DR. BEHLING: -- a comment -- excuse me, Joyce, I just wanted the opportunity -- for interrupting, but I do want to take the opportunity to make a comment here about if

there's modification to TIB-8 -- or TIB-2 is that I think we need to be very clear when you should use it. I think the -- under section one of purpose, it says that when there is little or no data involving bioassay data for that individual, as a bounding estimate you assign these -- this approach. But I think -- and you will see it in the next set of cases that we have that will be issued as -- draft form shortly, there's one individual dose reconstruction where this TIB-2 was employed, and I have to say the guy was monitored 157 times for urine bioassay for uranium alone, and somebody was probably just a little too uncomfortable in pursuing that approach and saying well, we'll bound it by using TIB-2. And I'd just like to inform you that there -- there should be some strong language when you use it and when not to use it.

DR. NETON: Well, I don't know if this specifically applies to TIB-2, but we've adopted the approach that if -- under the bounding conditions, if that over-arched the --

DR. BEHLING: Oh, yeah, yeah.

DR. NETON: -- predicted bioassay results, then

it was okay to use that.
DR. BEHLING: Yeah, but you would -- you should -- you should at least provide some evidence that you actually pursued it in that manner --
DR. NETON: Oh, yeah, it should be documented.
DR. BEHLING: -- and you could clearly show quantitatively that this bounds the actual --
DR. NETON: I agree.
DR. BEHLING: -- empirical data --
DR. NETON: I agree.
DR. BEHLING: -- but that was clearly -- or at least in my estimation --
MR. ELLIOTT: It was lacking.
DR. BEHLING: -- is not done.
DR. NETON: I think -- I agree, that should have been our approach.
DR. BEHLING: I'm sorry to interrupt, Joyce, but I just wanted to make that comment while we were talking about TIB-2.
DR. LIPSZTEIN: Okay.
MR. GRIFFON: Can I go back to Joyce's question, just for the -- the clarification of the -- first of all, the ten percent body burden and then the ten to 20 times the factors? What -- what is that or are you going

to provide more information on that or...

DR. NETON: Yeah, I think that was -- the first -- Stu's original response, which was we can certainly provide better clarification as to our logic behind the ten to 20. I'm -- I'm not prepared to speak.

MR. GRIFFON: Oh, okay.

DR. LIPSZTEIN: Jim, let me put it that I don't think -- I don't know if I made myself very well understood because some of the things, they are repeated. First example, what happens is that when you look at the specification for the ten and 20 times in the TIB, it says that it comes because of the current ICRP models and the difference between an intake and the activity that is present in the body after the initial clearance of the short-term compartments. And then there is a whole table trying to justify it. But the problem is that those numbers from those tables, they were made with certain mistakes. And because of that, this ten and 20 not always is claimant-favorable, and so it would be better if instead of, you know, just taking an arbitrary number and doing it, the ten and 20, you would use

IMBA, for example, and get the exact number you have to multiply. So sometimes you had to multiply the number by 60 and you end up multiplying it by ten or -- I -- I -- because most of the comments, they all refer to the same thing. If you -- if you look, for example, on the technical issue of the same -- finding number eight of this same document on page 21, for example, you -- it should look like, for example, for (unintelligible) 95, you should multiply it by 67 and 144 if it was 90 days, and not 20 as was used in the table, and so on for other radionuclides because there was some kind of mistake in deriving those numbers, then this number ten and 20 is not always claimant favorable. For cobalt-58, for example, you should multiply it by 71 and not 20, as it was used, and so on. So what I'm saying is that there was a technical mistake on deriving those tables instead of using the exact numbers that should have been, and that -- all this should be corrected, and then this multiplication by ten and 20 is not -- is not correct -- it's not technically correct and it's not claimant favorable, also. So I would

suggest we use the IMBA that you have and get the exact number.

MR. ALLEN: Joyce, this is Dave Allen, and the one thing I wanted to point out is at the time when this was originally written, IMBA didn't include these isotopes. That's why that Potter's --

DR. LIPSZTEIN: Oh, okay.

MR. ALLEN: Yeah, that's why Potter's tables were used. And you're right, there was a technical error in that the -- the radioactive decay was not accounted for when the table was produced, but --

DR. LIPSZTEIN: Yeah, and that's why --

MR. ALLEN: Yes, that's --

DR. LIPSZTEIN: -- you (unintelligible) those mistakes, yes, and this has to be corrected because for some nuclides you give a very big number.

MR. ALLEN: Right, but -- but the big --

DR. LIPSZTEIN: You know, like 67 instead of 20 or (unintelligible).

DR. NETON: I would point out that where this is important, the doses are pretty small.

MR. ALLEN: Right, because --

DR. NETON: I'm not justifying that there should be a technical error, but the correction is going to be very small.

MR. ALLEN: Yeah, because the --

DR. LIPSZTEIN: It's not so small, because you have to multiply -- it's instead of ten you multiply by 60, that's not -- you know it's six times more. I -- you know, I --

MR. ALLEN: It's -- Joyce, this is Dave --

DR. LIPSZTEIN: I think that now that you have IMBA and you have all those nuclides, maybe you should correct it, or maybe use it the right way from the Potter table.

MR. ALLEN: We'll -- we'll beef this up and either -- either completely correct it or make an attachment to it that justifies the number a little better. But from what we've seen preliminarily, it's -- the major difference is the short-lived elements, and the short-lived elements, you know, by their nature don't deliver a dose very long, so the doses are -- tend to be pretty small for the ones that the biggest errors occur.

DR. NETON: I mean a factor of six change on something that delivers five millirem is not a

huge dose, although you're absolutely right, it should be correct (unintelligible).

MR. ALLEN: And we do intend to beef it up --

DR. NETON: We'll address it.

MR. ALLEN: -- yeah.

DR. NETON: I'd forgotten this comment, Joyce. This was a long time ago I heard the comment --

MR. GRIFFON: Yeah.

DR. NETON: -- and it's coming back to me now, and you're absolutely correct. This is a technical issue that needs to be addressed and we will -- we will deal with it.

DR. WADE: Good.

MR. GRIFFON: Okay, so -- so NIOSH is going to provide some kind of written response on this -- right? -- clarifying the -- these factors --

MS. MUNN: Yep.

MR. GRIFFON: -- and discrepancies in that table, I would say, too.

DR. LIPSZTEIN: Okay.

MR. GRIFFON: Okay. I'm just going to go through these items. Some of them may overlap with that same issue, but OTIB-2 number two. I'm on the top of page 19 now.

DR. LIPSZTEIN: Top of page 19?

MR. GRIFFON: Yeah.

DR. BEHLING: Some of us have different pagination, Mark --

MR. GRIFFON: Oh, it's probably different paging, yeah. OTIB -- it's -- it's the same OTIB, number two, finding number two.

MR. HINNEFELD: Yeah, the best we could interpret this one was that it was sort of a compilation or a summary of other comments -- you know, a couple of comments that occur later on, because we couldn't find the original -- you know, sources that we're missing. There were comments later on that we thought may be relevant to this, but as it's stated here, it says it references data from that need to be known in order to understand the procedures described, and we didn't quite get the take on what we were supposed to provide.

MR. GRIFFON: Can SC&A clarify this one, the finding, in some --

DR. BEHLING: Yeah, it may -- Mark, it may very well go back to something that we identified in our protocol for review of procedures, and that is when you provide a document that is to serve as a guidance document, try to avoid the need

to reference secondary documents that the individual may have to assess in order to follow through. For instance, in -- I'll give you an example in the case of the medical occupational exposure, TIB-6 for instance would make reference to NCRP reports regarding a graph or a table that -- that would only add dimensions of time that the dose reconstructor would have to invest in pursuing that information. And the recommendation was if there is additional information needed for -- for dose reconstruction, provide it in the document itself rather than ask somebody to go and -- and hunt down some other document that he may or may not even have access to. I think that was the intent here is to -- if you're going to have a document that's to serve as guidance, provide the necessary information so that there is no need to go to another document in order to complete the picture for guidance.

MR. HINNEFELD: Okay, I think we can probably -- if we're going to revise this for clarity purposes anyway, we can probably look for those type of things in here and avoid (unintelligible) --

MR. GRIFFON: I would say this is one of those that -- that NIOSH should modify, but it's not a high priority item. I think we recognize some of those -- I mean in the implementation guidelines -- you know, modi-- you will modify it, but it's not a high priority issue, I would think. Right?

MR. HINNEFELD: Right.

MR. GRIFFON: All right, I'm on to number three, if there's nothing else on that one. This is the guidance not consistent with other documents that are part of the hierarchy of procedures; i.e., OTIB-1. And NIOSH -- Stu, your response said there's no direct relationship. Right?

MR. HINNEFELD: Our response is that there -- OTIB-1 and OTIB-2 are two different approaches for arriving at a hypothetical intake, based on what's known about where they're used. So we felt like it's okay to have two different approaches for hypothetical intakes. OTIB-1 is just used at Savannah River. OTIB-2 is used at other DOE sites.

DR. LIPSZTEIN: What we were thinking is that if you have one working in one installation and

another working in another installation that people should get the maximum doses the same way. But we have this with most of the -- of NIOSH documents. Some -- some cases you -- you calculate the maximum doses one way, the other -- another document in another way, so it's (unintelligible) you have to do.

MR. GRIFFON: Is it -- is it a question of consistency or is there an equity issue here or...

MR. HINNEFELD: Well, it's a hypothetical overestimate for a case that's not going to reach 50 percent, so I don't think it's going to be an equity issue. It would -- if one is providing a higher dose than the other approach, then that just means that there will be -- you -- there are few cases that can be done this way with the higher -- you know, the higher number, so --

MR. GRIFFON: So that's an important part of your answer, that the procedures both will never be used for cases that exceed 50 percent, or -- or --

DR. BEHLING: By definition, Mark.

MR. GRIFFON: Right. Right. That -- that's an

important part. I mean...

MS. MUNN: Can we just add that statement and have this resolved?

DR. BEHLING: A curious thing would be to perhaps do a bunch of organs under the -- common organs, but by using the 12/28 radionuclides versus these Savannah River high five and see, you know, how different are they. As has already been mentioned, they're not to be used for anything other than non-compensables, so the differences may be all academic, but it may just be something that we might want to do just to see how different the two sets of data would result in common organ doses.

MR. ALLEN: Well, I think you'll find that at Savannah River OTIB-1 is lower than the OTIB-2, but OTIB-2 was intended to apply complex-wide, so it had to be much more encompassing, whereas OTIB-1 was based on an actual -- Savannah River kept a good list of --

DR. BEHLING: Yes.

MR. ALLEN: -- estimated intakes of all their employees and we took the top ones. That allowed us to overestimate Savannah River much

more plausible --

MS. MUNN: We had a better implausible number (unintelligible).

MR. ALLEN: Basically we -- we had the information to refine the Savannah River overestimate as compared to a complex-wide type overestimate, was the main difference between the two.

MR. GRIFFON: So Wanda, you suggested adding that clarifying statement.

MS. MUNN: I just would add --

MR. GRIFFON: What was the clarifying statement, that these are not used for --

MS. MUNN: That neither of these will be used for cases that would exceed 50 percent POC.

DR. BEHLING: Well, that's clearly written in the procedure itself.

MS. MUNN: Yeah, it already says so, but if we say it here, then that (unintelligible).

DR. BEHLING: And the inequity issue won't come up because TIB-2 is used for everything other than Savannah and TIB-1 is only for Savannah, so --

MS. MUNN: Uh-huh.

DR. BEHLING: -- there's not going to be two

people from Savannah, one being assessed by the 12 or 28 and the other one by the high five.

MR. GRIFFON: That's what I was looking for. SC&A is concurrent with this then. Right?

DR. BEHLING: Yes.

MS. MUNN: Yeah.

MR. GRIFFON: Okay. All right, moving on, OTIB-2, finding four.

MS. MUNN: It said another revision is coming.

MR. GRIFFON: Okay. And then five, we just discussed. Right? We're going to get a response on that.

MR. HINNEFELD: Yeah, five was what we discussed a minute ago.

MR. GRIFFON: Very similar, right. And six, I think.

MS. MUNN: Uh-huh.

MR. GRIFFON: Although this --

DR. NETON: Yeah, that's the same issue we talked about --

MR. GRIFFON: Right.

DR. NETON: -- the decay factors.

MR. GRIFFON: Okay. And seven --

DR. BEHLING: Joyce, do you have a comment?

DR. LIPSZTEIN: Yeah, on seven, when you --

also be -- it's a technical issue again, and some of the things that were written on the documents, they are not -- they are not true. And there's a comment here that the OCAS did not evaluate this comment because the nuclides in question were not specified. That's not true on the basis that were given here, 138 and 139. We gave examples of things that were technically wrong. For example, the assumption of type S for cobalt-58 and cobalt-60, it said it's -- this is used because it results in larger doses to systemic organs because of the high energy photons, and then if you look up you'll see that not for all organs you should use type S, for certain organs you should use type M. So there's some small -- I don't know if you -- I should call it small, but there's some technical incorrections on -- on the classes that -- on the types that were -- absorption types that were assumed. And we gave examples, some -- for -- some -- some nuclides that were wrong.

DR. BEHLING: Joyce, we also brought that up with regard to plutonium and uranium, and I think you and Mike Thorne may have also

commented or written responses to that, but I personally have also found this out in my own review of audits of -- of dose reconstruction cases, and this is particularly true when you start out with a urine sample that you first have to use to determine what was the inhalation quantity, and then again work forward in saying how does that inhalation affect -- or how does that correlate to a specific organ dose. We found that if you -- if you start out with type S as opposed to M, you end up with higher organ doses if you start out with urine data to first calculate the inhalation dose and then use the inhalation dose to calculate organ dose. And so I think you're talking about the same thing that I've also (unintelligible).

DR. NETON: I think that's true for urine, but TIB-2 does not --

DR. LIPSZTEIN: But I --

DR. NETON: -- start with urine.

DR. LIPSZTEIN: -- but I think on those particular example of what's happened is that you could not use -- if you use the same type of nuclide (unintelligible) that's in the old

ICRP nomenclature, sometimes NIOSH call it class, but no class was in 30, now it's type, but it's almost the same thing. What I mean is that for some nuclides you cannot say you should use only type S or you should only use type M 'cause some nuclides -- it depends on the organ you get the cancer.

MR. GRIFFON: Okay. And -- and Jim --

DR. LIPSZTEIN: Because for some organs you get a more favorable result if you use type S, for -- for other organs you get a more favorable result if you use type M. For example, cobalt-60, it's written on the document that you should always use type S because it will result in a larger dose to the systemic organs. And what I'm saying is that okay, for many organs, yes. But for the bladder or the brain, for the uterus and for the colon you should use type M because it gives a higher dose than type S, so it's -- there's some technical incorrection.

MR. GRIFFON: So Joyce, you have -- these are examples in the report, I agree, I see them.

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: Do you have an extensive list or -- or --

DR. LIPSZTEIN: We ga-- we -- we did it for all the nuclides that were given in the -- the document.

MR. GRIFFON: And are these --

DR. LIPSZTEIN: (Unintelligible)

MR. GRIFFON: -- the ones you found -- these are the ones that you found problems with and listed in your report?

DR. LIPSZTEIN: Yes. Yes, they (unintelligible).

MR. GRIFFON: So if NIOSH can -- can maybe respond to that or look at that and -- and respond to that, would that be --

DR. LIPSZTEIN: Yes.

MR. GRIFFON: -- a fair follow-up?

DR. LIPSZTEIN: Yes, yes. I -- yes. We -- I think for all the nuclides NIOSH should review this and -- and see which nuclides they should apply which type of -- of nuclide they should (unintelligible) --

DR. NETON: Joyce, I'm curious --

DR. LIPSZTEIN: -- (unintelligible) --

DR. NETON: -- the calculations you did, were they for 50-year committed doses?

DR. LIPSZTEIN: -- (unintelligible).

MR. GRIFFON: Okay.
DR. BEHLING: She didn't hear you.
DR. NETON: Joyce --
DR. LIPSZTEIN: (Unintelligible) this one type --
DR. NETON: -- this is Jim --
DR. LIPSZTEIN: -- (unintelligible) it's -- it's something that you -- you get (unintelligible) as a technical thing.
DR. NETON: Joyce? Hello, Joyce?
DR. LIPSZTEIN: Yes?
DR. NETON: Are these 50-year doses that you're basing these comments on?
DR. LIPSZTEIN: You could do it for 50 years or you could do it for less years, too (unintelligible).
DR. NETON: Well, I'm saying it makes a difference. I think you almost have to do it on a --
DR. LIPSZTEIN: Yeah, it does. Yes, of course it does.
DR. NETON: Yeah, so I don't think you can generically say that those numbers are valid always because rarely do we have 50-year doses, but we certainly need to look at it and --

DR. MAURO: Jim, this is John --
DR. LIPSZTEIN: Yeah, it's always the technical things that have to be examined very carefully instead of just, you know, pointing out something for the DR that it's not always (unintelligible) it will be a -- a --
DR. NETON: Yeah, I agree.
DR. LIPSZTEIN: -- claimant favorable --
DR. NETON: Dave -- Dave, correct me if I'm --
DR. LIPSZTEIN: -- so it's something you have to look very carefully.
DR. NETON: Yeah, I -- I think it's been our approach -- and Dave Allen can correct me if I'm wrong here -- but we would normally do it both ways and pick the higher of the two. This may be an artifact of an earlier TIB that was put out there that --
(Whereupon, Dr. Lipsztein, Mr. Griffon and Dr. Neton all spoke simultaneously, rendering transcription of their individual comments impossible.)
DR. LIPSZTEIN: I think the advice should be (unintelligible) for all types and see which one gives you the highest dose (unintelligible) --

DR. NETON: Well, and more importantly, you need to bring into account the integration period because if it's one year, five years, ten years, 50 years, it could make a difference.

MR. GRIFFON: Yeah.

DR. NETON: See, and I --

DR. LIPSZTEIN: It could. Yeah, it could.

DR. NETON: 'Cause if you have class Y and it's in the first year --

DR. LIPSZTEIN: (Unintelligible)

DR. NETON: -- M would be more favorable.

DR. LIPSZTEIN: -- for some numbers (unintelligible).

DR. BEHLING: Well, we're still dealing with --

MR. GRIFFON: That might be the best action, Jim, is the --

DR. BEHLING: -- the efficiency process, though (unintelligible).

DR. MAURO: (Unintelligible) that I want to step back for a second because I think the NIOSH response is interesting. And the last sentence in the NIOSH response is -- it says it is not important how these large intakes were developed, as long as they are larger than

credibly could have been received by the subject employees. And I want to draw your attention to that because this goes toward not only comments on this particular TIB, but also on the high five approach, on the 28 radionuclides or the 12 radionuclides, and it's something that I was anxious to engage in. It is my understanding that it -- this statement says -- we -- we use this construct whether -- to get us to a certain dose, and a -- and NIOSH gives -- well, we went with the high five. Now we know from doing the review that we probably could find some people that got higher than your high five. That doesn't invalidate your doses, it just says that well, your rationale for picking what you pick, the high five -- well, if we go into the literature or go into the databases, we could find other people that were even higher. Same -- same thing Joyce -- now you had pointed out here, correctly so, that there are some other assumptions that could be used for certain radionuclides that could give you -- regarding let's say solubility, that could give you a higher dose. And the answer that was given here by NIOSH is

-- is going down a different path. It's almost as if don't let's talk about the rationale, let's just talk about the dose. We're -- we're arbitrarily selecting a very high dose for each of these organs, and we're going to use the assigned dose as long as we feel confident that they are in fact bounding for the class of individuals that would apply this to, or the -- the individual. So I guess we -- we need to come to some resolution here, whether there -- NIOSH needs to have a rationale for the dose it picks and -- and -- and then stick to it, such as picking the solubility that's most claimant favorable, picking the high five and demonstrating that those in fact are the highest five, or is it just -- is it sufficient for NIOSH simply to pick a dose and -- and the rationale's really not what's important, and provide assurance that that dose is in fact above the credible upper bound.

DR. NETON: John, this is Jim. I'd go back one step further, though, and -- and not talk about picking a dose, but picking an intake.

DR. BEHLING: Yeah, you have --

DR. NETON: Because that's really --

DR. MAURO: Okay, an in-- let's --
DR. NETON: -- what we're talking about here.
DR. MAURO: -- go with intake, so I mean I think we can --
DR. NETON: Because intake can be grounded in the plant conditions, to some degree.
DR. MAURO: Yeah.
DR. NETON: Just arbitrarily picking a dose doesn't make any sense to me.
DR. MAURO: Okay, I stand corrected. But you see the point I'm making. I'm trying to find a way that -- it's really an intake in the end that you're picking.
DR. NETON: Right, and I would -- I would suggest that I think what you say is true about the intake, that we -- we just have to be able to get people comfortable that it's a bounding intake for that plant or that exposure scenario. Now how you get the dose is a different issue, and I think we would -- I would feel comfortable in saying we need to be consistent on how we're applying that intake and converting it to dose. And yes, we would use the most claimant favorable scenario that made -- if it made sense. If we couldn't pick

between two, Y or W, we would pick the higher one. But I think the intake itself is -- is where we would argue, and I think -- I hope people would agree that we -- we have the -- we can pick a bounding intake value for a particular plant, and that's what we tried to do with Savannah River and these other TIBs.

DR. BEHLING: And I also think, just to add something to what you started out, John, and I concur. If we start to decipher this whole issue and then break it down into different time periods, as Joyce correctly states -- and Jim, too -- that it's not necessarily consistent that one solubility class will always give you the higher. It may also be affected by the duration between exposure and -- and cancer diagnosis. But if we go and follow that path, we no longer have an efficiency process. You're going to end up with an awful lot of computations that will determine which one is the highest, when in fact the intent is to save time by saying let's just go with the high one. It may not always be technically correct, but we do know it's bounding, whether it's necessarily the highest

one -- and -- and use that as a tool for saying let's be done with it because this is a non-compensable claim and we're looking for efficiency.

DR. LIPSZTEIN: I -- I don't agree because if the (unintelligible) were small, I would agree with you. But when you have a difference of six or ten times, you know, higher, it makes a difference.

DR. BEHLING: Well, Joyce, but just to -- to tell you, again, if that difference of six to ten brings a guy over 50, we'd withdraw the whole efficiency process to begin with and start looking at best estimates, in which case we -- we end up with a whole different ball game in computating (sic) the internal dose, so --

MR. GRIFFON: That's -- that's what she's saying, you're on the low side of a six to ten. You're on the low side, Hans, so you wouldn't get -- you know, what -- what about this a --

DR. BEHLING: Well, that's what I'm saying. If you do go to a more restrictive dose calculation that would ultimately bring the person up to or beyond 50 percent, we withdraw

the whole procedure entirely.

MR. GRIFFON: Let me -- let me ask this, 'cause I think Jim Neton shed a lot of light on this with the last statement he made about three minutes ago. I mean what if -- what if, as an action, NIOSH evaluates this, but it may be that you, for certain nu-- nuclides, you put in there -- the guidance is for the DR dose reconstructor to run all solubilities and pick the highest in that case, and for some you may be so clear that -- that class S is always going to give you the highest, then you can just leave it at that. I would almost recommend, you know, take -- take the -- remove the table and say just run all -- you know, run all solubility choices and pick the highest for the organ of interest. That would clarify the guidance completely, and I don't think it's that inefficient when you're just picking one intake, anyway.

MR. ALLEN: Well, that's annual doses for 28 nuclides at various solubilities each, that turns out to be a hell of a lot of --

MR. GRIFFON: Oh, yeah, okay, okay, so I'll go back to the -- for those certain nuclides where

there's an issue, then you put run -- you know, asterisk, run -- run two solubilities and -- and check this out in this instance, you know, or something like that.

MR. ALLEN: I think maybe an evaluation by us could probably reach a compromise --

MR. GRIFFON: Okay.

MR. ALLEN: -- in what everybody is saying here 'cause I think the six to seven times that Joyce is talking about might be some of the smaller dose isotopes --

MR. GRIFFON: Smaller overall doses.

MR. ALLEN: -- to where, you know, the total -- and in keeping with what Hans is saying here, if it's -- if the difference is, you know, in the ten percent range, it's probably not worth dealing with in an overestimating TIB like this.

MR. GRIFFON: Right.

DR. NETON: I think -- I think Dave's got a good -- good solution here.

MR. GRIFFON: Okay, well, why don't --

DR. LIPSZTEIN: (Unintelligible) intake -- (unintelligible) intake of ten times -- if a difference in dose of ten times

(unintelligible) proportional to the intake -- don't forget, the difference of ten times -- you will never make a difference on the dose, then we might as well say what -- what are we doing, nobody will get anything.

DR. NETON: Yeah, we don't --

MR. ALLEN: Joyce, the point -- the --

DR. LIPSZTEIN: A difference of ten times in the intakes is a difference of ten times in the dose.

MR. ALLEN: The point, Joyce, was that some of those isotopes were a small fraction. We're -- we're including like say 28 -- all 28 nuclides for one intake, we're not just picking the highest isotope.

DR. NETON: I think we need to go back and look and see where these may have an effect and -- and behave accordingly. I think that -- I agree with Joyce that we just can't say we're just going to -- it doesn't matter which is higher because we're so generous. I think we need to evaluate it, at least put some brackets around what -- what difference it makes. And I think we'd be hard-pressed to argue that we shouldn't know what the upper bound doses are

with these intakes. I mean that's sort of a given, so --

MR. GRIFFON: I think that -- that's as far as we're going to get on this phone call --

DR. NETON: We'll take a look at it.

MR. GRIFFON: -- today anyway -- yeah.

DR. NETON: It's easy for me to say, I don't have to do all the work behind it.

MR. GRIFFON: Okay. So now we're on to -- to finding eight.

DR. LIPSZTEIN: It's the same.

MR. GRIFFON: Oh, it's the same thing, okay. I'm just moving ahead here, and nine's the same, also. Right? Seven, eight and nine, they're all the same issue anyway.

DR. LIPSZTEIN: Yeah, (unintelligible).

MR. GRIFFON: Okay. How about ten and 11?

DR. LIPSZTEIN: (Unintelligible)

MS. MUNN: We've done them. We did those first.

MR. GRIFFON: Okay.

DR. LIPSZTEIN: Okay, and 11 also, it's agreed?

MS. MUNN: So now we're down to TIB-5.

MR. GRIFFON: We have agreement on ten and 11, right? Okay. I'm making sure I capture these

notes so I can revise the matrix to -- okay, TIB-5, finding one, see response to TIB-8. Okay, so we've got this one. This is a -- we're going to review the new ICRP model. Correct?

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: And number two, SCA agrees with NIOSH, I have on this, so I think this one's not an issue. Now we're going to go down to ORAU-OTIB-1, finding number one.

DR. LIPSZTEIN: (Unintelligible)

MR. GRIFFON: Surrogate radionuclides, is this -- this is the same issue for TIB-1 or no?

MS. MUNN: It's going to be clarified in a subsequent revision. One of those things for you to track, Mark.

MR. GRIFFON: Mark.

MS. MUNN: Action, Griffon.

MR. GRIFFON: Wait, I have -- I have a more discussion note on this, though. Could someone clarify that, OTIB-1?

MR. ALLEN: This is Dave Allen, I think I can shed just a little bit light on that one. At the time OTIB-1 was written, again, the version of IMBA we had didn't do all isotopes -- well,

it'll never do all isotopes -- but there was a number of important isotopes it did not do and we tried to account for that by using isotopes that it did do as a surrogate. At this point I believe all of the isotopes on there are included in IMBA, so we -- we can go back and calculate a more correct version rather than using a surrogate isotope.

MR. GRIFFON: So it's really probably no longer an issue and the revision will clarify it. Right? The -- the --

MR. ALLEN: I think we -- what we have to do is rerun those numbers, and if it's a very small difference at least write this up and present it to you, you know, as -- you know, we don't think a change is warranted, but I suspect one is going to be warranted and in that case we'll revise the OTIB.

MR. GRIFFON: Okay. So evaluate and revise as necessary?

MR. ALLEN: Yeah, that's basically it.

MR. GRIFFON: Okay. Finding two on that same OTIB?

DR. LIPSZTEIN: (Unintelligible) I think NIOSH -- what they are saying is that they will

clarify -- it took me a long time to understand why they did it like that, and then I knew -- I... so but it -- it says that in a subsequent revision it will -- NIOSH will clarify that intakes occurred before the adoption of ICRP-30 where (unintelligible) using ICRP-30 methodology.

MR. GRIFFON: Okay. And I guess --

DR. LIPSZTEIN: I think -- I understand that NIOSH agrees with the commentary.

MR. HINNEFELD: Yeah, we agree to clarify the write-up here because --

MR. ALLEN: We agree it's ambiguous.

MR. GRIFFON: Okay, and this -- is this for the -- is this the high five procedure?

DR. NETON: Uh-huh.

MR. HINNEFELD: Yeah.

MR. ALLEN: Yes.

DR. LIPSZTEIN: Yes, this is the Savannah River, yeah --

MR. GRIFFON: And --

DR. LIPSZTEIN: -- document.

MR. GRIFFON: -- I guess I had a -- I don't know if it's captured in this same finding, but a question as to whether -- and this might be

in the site profile review more than in here, I forget, but the question's come up on the -- you know, where the high five came from and whether NIOSH independently calculated those intakes from the -- from the accident or whether they were provided by Savannah River -- how -- how those actual high five intakes were -- were derived.

DR. LIPSZTEIN: For me this is a very good question because I -- I only reviewed some cases for -- some of the 20 cases, but some of them were from the Savannah River Site, and I kind of looked at some of the data and I -- I could see some intakes that were higher than the ones cited on the high five. So --

MR. GRIFFON: Yeah, I looked -- I looked --

DR. LIPSZTEIN: -- you know, when I -- when I -- when I reviewed the document I didn't see the cases, but then I saw the cases -- I don't know how, you know, should say this in a conference call or not, but I --

DR. NETON: I think this is getting into sort of the issue that -- that John Mauro brought up a little bit ago in that, you know, are these reasonable bounding intakes for the workers to

which the -- you know, the approach is applied. In other words, we're not arguing that there was no higher intake ever in the history of Savannah River, but based on the average of the highest high five that were evaluated by the dosimetry program, we believe that these are sufficiently bounding for the class of workers that we're using them for. And that's really the relevant issue here. It's not, you know, can we find someone who had a higher intake of plutonium. I mean I think that -- the intake is something like 160 nanocuries of plutonium, something in that ball park. Is it reasonable to conclude that a -- an administrative personnel who was not monitored had a higher intake than that. I mean that's really what we're trying to get at here. And whether that was done with ICRP-30 methodology or not is -- is not really -- I'm not saying it's not relevant, but it's -- it's not as important as it would seem.

MR. GRIFFON: Yeah, I guess that -- that is what -- what is of issue in -- I --

DR. NETON: Yeah.

MR. GRIFFON: You know, if the highest five --

I mean I think that -- we -- we've -- I think -- I guess maybe I got caught up in this -- this quick and easy terminology of the high five, the highest --

DR. NETON: Yeah, sure.

MR. GRIFFON: -- five intakes ever, and maybe there's a better --

DR. NETON: There might be a better descriptor, and --

MR. GRIFFON: -- a better descriptor that says, you know --

DR. NETON: Yeah.

MR. GRIFFON: And I think you're right, Jim, the application's important because it's not intended for application to production workers or --

DR. NETON: Right.

MR. GRIFFON: Right?

DR. NETON: Right, there -- there are limits on the application of the high five approach. Again, it was part of the efficiency process, and rather than --

MR. GRIFFON: (Unintelligible) efficiency model, right.

DR. NETON: -- rather than picking numbers out

of a hat, I mean we -- you know, we -- ORAU went out and said well, this seems reasonable that -- you know, they have the very robust monitoring system and over the years here are the -- you know, the high intakes that they've experienced for -- for workers who were in the production environment. And we're applying these to non-production workers, so I think there's some real credibility here that we've gained from this, but maybe there is a nomenclature issue or how we described it, but...

MR. GRIFFON: I guess what -- what strikes me now, in retrospect, is that -- that most of the other sites you're not using this sort of approach --

DR. NETON: Right.

MR. GRIFFON: -- for the unmonitored workers in establishing, you know, the 95th or 50th percentile intakes.

DR. NETON: Well, and that -- that's part and parcel of this program. As we learn more and develop coworker databases -- and again, these are not used to pay people. They are used -- you know, is -- is it on the right side of the

50 percent mark is what we're trying to say, and I -- I suspect that we -- you know, if we had the coworker data available at the time for Savannah River, we would have used it.

DR. BEHLING: Possibly a way to avoid would have been to maybe use the 95th percentile among production workers where you leave the door wide open and say well, there'll be the other five percent that will be higher, but -- for instance, in one of the most recent 20 cases we evalued (sic) I identified a person who was not among the high five. In fact, if -- if we used his data, he would be number two. And so, again, just -- this is another case that fell through the cracks, but it doesn't invalidate the process of using the high five as an efficiency measure that says for those people who were really not production workers, this is still a bounding approach to estimating any unmonitored intakes.

MR. GRIFFON: But I -- I think -- I mean I guess my -- my question -- I still have the question as to what -- where this -- you know, how this data was derived, where the high five came from, and then -- and then we might come

to that very conclusion, Jim, that you said which is that it's bounding. It's not the highest five ever, but it seems very bounding for the people it's applied to and for the efficiency model that it's used in.

DR. NETON: Right. I mean I haven't read the TIB in a while, but there is a --

DR. LIPSZTEIN: It's worth a discussion because what is written is that those are the largest intakes that were ever assigned at Savannah River Site, and -- and (unintelligible) the five intakes are cited, but there is no (unintelligible) how they were calculated, from -- where did they come from, if this same approach was used and from where this data was used. And as I -- I was telling when I analyzed one of the cases, I found an intake that was bigger than the five listed, so I said well, I don't know from where the data came from anyway. Maybe it was calculated in a different way and it was (unintelligible) the same event, I don't know. But it doesn't say how it was calculated, and that's a big problem because we don't know from where it comes and how it were -- was calculated.

MR. GRIFFON: So I think we -- I think this is also in our case review matrix to -- to follow up on this in the site profile review. Correct, Jim?

DR. NETON: Yes.

MR. GRIFFON: So I -- I -- we won't lose this issue, but I think it -- that question still remains.

DR. NETON: I thought the site profile said it was going to be handled in the dose reconstruction review, too.

DR. BEHLING: Yeah, just to add to that statement --

MR. GRIFFON: Well, that's one of my fears here.

DR. NETON: No, it's in -- it's in the site profile review and we're committed to addressing -- I think -- it sounds to me like we just maybe need to go back and expand on that section of the TIB and -- and convince folks as to what we've done and what the real intent was rather than, you know, sort of leaving people with the assumption that this was the highest five recorded ever in the history of whatever, you know.

MR. GRIFFON: And another thing that struck me, I -- I also -- I think I saw that same case that Hans and Joyce are referring to, but prior to that I just looked at the -- the dates of these highest five -- quote/unquote, highest five intakes, and it struck me that they weren't all in the '50s and '60s. They were -- there were some that were quite a bit later, and I -- that -- that was a little flag for me, although -- you know, it may well be true, but it surprised me to see that (unintelligible).

DR. NETON: Yeah, again, you know, I think if we couch this properly with the right, you know, caveats around it and let people know that we're not saying these were the highest ever, these are the highest we believe are reasonable, credible bounds for -- for this class of workers and that's maybe where we fell down here. And I think if we take a crack at that and expand it a little bit, maybe we'll make people feel a little more comfortable with the approach.

DR. BEHLING: I mean the case that I'm referring to, and I talked to you about, Mark, it's a urine data. And of course how we

calculate the intake is to use IMBA, and of course IMBA wasn't available at the time these -- these cases were classified as high -- high exposures. Whatever they used -- ICRP-30, manual hand calculations -- they're bound to be different from the ones that we're calculating starting out with the urine sample, working backwards through IMBA and saying okay, here's what IMBA predicts would have been the high -- inhalation intake, and so it's quite possible that just on the methodology that we're using versus what was used initially as part of the database by -- from which you pick that -- that -- those high five, that that may account for -- for discrepancies.

DR. NETON: Type S versus class Y would make that kind of difference on an intake.

MR. ALLEN: Well, these were definitely ICRP-30 calculated intakes.

DR. NETON: Right, and so, you know, you have differences in the model.

MR. ALLEN: That's the whole reason for all that convoluted evaluation in there about ICRP -- or the current models versus ICRP-30, to show that not so much, you know, a small

correction, but the -- to kind of bound how much of a difference it would make. Some of them went up, some of them went down. I think you're generally talking, worst case, around a factor of two on the big ones, on the important ones, so it's -- it's -- still says it's bounding because it's not a huge difference between the models.

DR. NETON: I think there's enough confusion here that we need to take on the responsibility here to go an clarify what we really meant to do here, and -- I don't think we -- I'm going to maybe embark on an entire reanalysis, but at least a few paragraphs to characterize the intent a little better and see how that flies, and then work from there.

MR. GRIFFON: Okay. Finding three is on the tritium. Right?

MS. MUNN: Agreed. We agree, it's just a tracking issue. Right? Mark?

MR. GRIFFON: Excuse me?

MS. MUNN: I said they agree, it's just a tracking issue, Mark.

DR. BEHLING: Is this the issue, Mark, that involves the assignment of tritium doses for

one microcurie versus five microcurie, the 71 versus 355? Because there -- there were about -- there's three different procedures you can reference. Some have algorithms that you can use, but in many instances the issue stands around do I assign one microcurie or five microcurie, and the difference is obviously five-fold for an assigned dose for a lot of people. And I think Joyce may brought up, I certainly brought up in some of my reviews of -- of case -- cases that I've audited.

MR. GRIFFON: Yeah, I think that -- I think that might be the issue. I mean I guess the -- the OTIB-3 versus 1, I guess they have to be consistent or complement each other. Right?

MR. ALLEN: Or cancel one.

MR. GRIFFON: Or cancel one.

MS. MUNN: We talked about that.

DR. LIPSZTEIN: Yeah.

DR. BEHLING: Yeah, I think in the first set of cases we had identified several maximized internal doses, some of which used the five microcurie per 24-hour urine volume and assigned 355 millirem each of those years, and another one was only the one microcurie per

liter or whatever it is that assigned the 71, and so there was an inconsistency by which the tritium doses were assigned.

DR. NETON: But were those compensable or not?

DR. BEHLING: No, no, they were not (unintelligible) --

DR. NETON: See, if they're not compensable -- it's a similar issue to what we just talked about is -- you know, you could use multiple methods to come up with a dose that's less than 50 percent. I mean that doesn't necessarily mean it's wrong or they're inconsistent.

DR. BEHLING: There's -- there's only one issue here, in fact, that -- and it's confusing, because then it says prior to the computerization of records, five microcuries per liter were not considered documentable --

MR. ALLEN: Intakes.

DR. BEHLING: -- urine intakes, and so that raised the question of what is really the more probable.

MR. ALLEN: That's what was going on was -- you're seeing a progression of our methods through the program there, and OTIB-3, if I'm not mistaken -- whichever one had the five

microcuries --

MR. HINNEFELD: That was three.

MR. ALLEN: -- Savannah River -- they -- they took routine -- they took analysis on a lot of people, and they would record the analysis as read, but they didn't bother to calculate a dose from the tritium unless they exceeded five microcuries per liter, so the one TIB said therefore if there's no dose recorded, it had to be less than five microcuries per liter, and it gave a continuous five microcurie per liter type of dose as a very quick and easy efficiency way of doing it. And later that progressed on to going to their -- the actual bioassay and the recorded values there, and calculating a dose based on that and the OTIB-3 five microcurie wasn't used anymore. And what you see in the procedure review was remnants of past methods, and that OTIB has been canceled now and I think we're probably -- got things cleaned up quite a bit better than (unintelligible) --

MR. GRIFFON: So which one's been canceled, Dave?

MR. ALLEN: OTIB-3.

MS. MUNN: Three.
MR. ALLEN: It was a --
MR. HINNEFELD: With --
MR. ALLEN: Go ahead.
MR. HINNEFELD: Yeah, with respect to the tritium approach in TIB-1, what we should do is see if we want to take that out and delete it, or if we just need to modify it to be consistent with the TIB-11, which is the new -- sort of newest word on tritium intake. So that's our action on TIB-1, as part of the revision either to take out the tritium part or to make it consistent with the last word on tritium intake. I think.
DR. BEHLING: What is the new OTIB that treats tritium? I think we just got (unintelligible) --
MR. GRIFFON: (Unintelligible) yeah, we just -- okay.
DR. BEHLING: Okay.
MR. GRIFFON: So you -- you're at -- that's what I was going to ask, in your NIOSH response, you haven't decided whether it'll be del-- removed or -- or modified at this point.
MR. HINNEFELD: Right.

MR. GRIFFON: You're still just deciding that. Okay, so it stands -- the same response stands and we'll wait and see for the revision of OTIB-1. All right. How about finding number four?

It seems to me the values in TIB-1 and 2 are going to be addressed in the subsequent revision.

MR. HINNEFELD: Right.

MR. GRIFFON: But as to the second point, there's no intent to relate it to job-specific -- relate the data to specific jobs.

MR. HINNEFELD: Right. TIB-1's -- we didn't intend to apply it to certain -- you know, or different numbers to different job categories if we're going to use TIB-1, so we didn't intend to do that as part of our clarification.

MR. GRIFFON: Okay, so more detail's going to be provided to clarify the values in TIB-1 and 2, and reproduce the intakes in tables 3 and 5. Right?

MR. HINNEFELD: Uh-huh, right.

MR. GRIFFON: And then the middle part is not going to be addressed in this OTIB and SCA --

DR. LIPSZTEIN: Yeah, because some -- there is

some description of how they -- they -- they found the mean value, but even following the description you cannot get the same numbers --

MR. GRIFFON: Okay.

DR. LIPSZTEIN: -- so something different might have been done.

MR. GRIFFON: Okay. But as far as the second point in the SCA finding, relate data to specific jobs, I think that wasn't the intent of the OTIB to do that. Is SC&A okay with --

DR. LIPSZTEIN: That's okay.

MR. GRIFFON: All right.

DR. LIPSZTEIN: Right.

MR. GRIFFON: Moving on, finding five.

DR. LIPSZTEIN: It's the same thing.

MR. HINNEFELD: Same as number four.

DR. LIPSZTEIN: (Unintelligible)

MR. GRIFFON: Okay. Hello?

MR. HINNEFELD: We're still here.

MS. MUNN: Yes?

MR. GRIFFON: Oh, okay. Did Joyce fall off?

MS. MUNN: Don't know.

DR. NETON: Sounds like it.

MR. PRESLEY: This is Bob Presley. I'm still here.

MR. GRIFFON: Okay, so -- so finding five is the same, I think.

DR. BEHLING: Joyce didn't say anything, I believe --

DR. NETON: Joyce, are you still there?

(No response)

MR. GRIFFON: I think Joyce got disconnected, but she was just saying that's the same as finding four. Then we're on to finding six, and if we need her, we'll pause.

MS. MUNN: Is Mike there still?

MR. GIBSON: Yeah, I'm still here.

MS. MUNN: Okay.

MR. GRIFFON: All right, this is a question of consistency with other OTIBs, and I think we talked about this in another instance.

MS. MUNN: Yeah, I think we did before.

MR. GRIFFON: So no requirement, and SCA is -- was in agreement with this. Correct, or --

DR. BEHLING: Yeah, we discussed the issue of TIB-1 and 2 as -- as being separate and not applicable to -- in other words, Savannah River, TIB-1 is only for Savannah and the other's for all -- TIB-2.

MR. GRIFFON: Right. And there's no equity

question 'cause they're all --

DR. BEHLING: No.

MR. GRIFFON: -- for under 50 percent dose.

DR. BEHLING: Yes.

MS. MUNN: Uh-huh.

MR. GRIFFON: Right. Okay, finding seven?

DR. BEHLING: I think the issue here, and speaking in behalf of Joyce, perhaps is the -- maybe this is an equity issue where we apply the same maximized dose for a guy who works there for six months and do the same thing for a guy who worked there for 30 years. In other words, we give them a one-time dose on the first day he starts out, then that's it, and one size fits all and I guess some people have raised the question is this fair. And perhaps you may start to encroach the issue of well, suppose the guy was there for 30 years, and every now and then there was a monitoring of urine and so forth, but I guess we will still say -- maybe it's easier just to throw in the high five or the 12 and 28 and be done with it, when in fact -- where's the bound-- where's the breaking point between saying the -- the one-time gift of 12 and 28 or high five is perhaps

maybe not always claimant favorable if you deal with a guy who started at Savannah River in 1952 and worked to -- into the '90s. The question is where do we sort of look at this more skeptically and say maybe we should consider something a little more appropriate than a one-shot deal that occurred 50 years ago.

DR. NETON: Well, I think -- we talked earlier, if we had bioassay data, we would use it to make sure that the TIB was bounding, gave a higher dose and it was still not compensable. So we would -- we're supposed to do that. I mean if they come through the --

DR. BEHLING: The question, on the other hand, is early on in the '50s, the start-up of the reactors, perhaps there were no real monitoring data available for these people and is it possible that this unquestionable maximizing dose may not always be so certain as to be a maximizing dose for all people, given the longevity of employment and the time periods of employment.

DR. NETON: I think we need to look at the category of the workers to --

MR. GRIFFON: Yeah, I guess that's --
DR. NETON: -- what is being applied.
MR. HINNEFELD: It's a case selection issue, really. I mean --
MR. GRIFFON: That gets to the definition of --
MR. HINNEFELD: -- there may be cases where it's not appropriate --
MR. GRIFFON: -- unexposed or lightly --
MR. HINNEFELD: -- to choose to use that.
MR. GRIFFON: -- exposed. Right?
DR. BEHLING: Yes.
DR. NETON: I mean if the guy's a reactor operator and we applied the -- that high five, you know, and he had no bioassay in the '50s, that's probably not appropriate.
DR. BEHLING: Yeah, yeah.
DR. NETON: And so I think, you know, we have to be careful where we apply it.
MR. GRIFFON: So I think -- Hans, I think you're saying you're in agreement as long as care is taken in defining exposed -- I mean unexposed or lightly exposed.
DR. BEHLING: Yes. Yes.
MR. GRIFFON: Yeah, I would agree with that.
DR. BEHLING: I mean I would look at it in

terms of not just even the duration of employment, but the period of employment. You know, we always -- we're all aware of the fact that health physics has certainly improved over the years.

MR. GRIFFON: Period of employment and location and --

DR. BEHLING: Yes.

MR. GRIFFON: -- job type and --

DR. BEHLING: Yes.

MR. GRIFFON: -- all those factors.

DR. NETON: All those things have to be...

MR. GRIFFON: Okay, but I don't think there's any disagreement with NIOSH on that. Right. So does this -- I don't know that this requires any modification to the OTIB, does it, or does it?

DR. BEHLING: I mean it's possible if you wanted to accommodate and say that if a guy worked there for -- let's say for every 15 years you apply this and say okay, he got it on the first day, and if he worked for 30 years, 15 years later he got another maximized dose, in order to establish some equity between people on the basis of longevity of employment.

But that has a danger that it might bring certain dose assessments over the 50 percent value, and it's no longer a issue of compensability of a -- non-compensability of a claim.

MR. HINNEFELD: Yeah, I don't really view it as an equitable issue or equity issue for people you're doing dose reconstructions less than 50 percent. You know, granted, a person who worked there six months clearly didn't get the same internal exposure as somebody who worked there ten years, but their dose reconstruction comes out less than 50 percent in both cases, I don't really view it as an equitable issue. I think it's really a case selection issue. It's not -- it's not something that we can address in the context of TIB-1, but would be a case selection process; are the cases appropriately selected to use TIB-1. That's really independent of what TIB-1 says to do. I'm not so sure -- I'm not so sure we can put a hard and fast time limit on there, either, because there are people who worked for 30 years at Savannah River who are lightly or unexposed the entire 30 years, in which case it would be

perfectly fine to use TIB-1 for those people. So I just -- I don't see a remedy that we can really manage -- I mean in TIB-1.

MR. ALLEN: I would like to point out, though, that TIB-1 includes a number of nuclides. It's the high -- you know, intended to be the high five intake of each of those nuclides, and there is nobody -- documented, anyway -- that's gotten the highest of any two or three of those, let alone -- I don't know how many are here -- 15 or more, so it still ends up being very bounding.

MR. GRIFFON: So -- so where do we -- I -- I understand you -- I mean I guess -- I guess OTIB-1 applies then an acute intake of these high five. Right?

MR. HINNEFELD: Yeah.

DR. BEHLING: Yes, first day of employment.

MR. GRIFFON: I'm refreshing my memory on these. So where -- where are we leaving this, 'cause I -- I do -- I know some of your other -- again this is an overestimating technique, but -- but then there would be that question of -- I guess -- I guess that is -- you know, careful consideration to the -- to the -- I

could certainly see certain classifications of workers in certain areas that they would easily fit in this and be very -- a very claimant-favorable overestimating technique, but if someone was 30 years reactor operator, then you'd have to wonder if it -- if it applied. Right?

MS. MUNN: Yeah.

MR. ALLEN: Well, I guess the point I was trying to make is you'd have to almost believe he was involved with some 15 separate incidents to get this highest exposure to each of these isotopes. It's not like it's a one-shot acute intake, even though that's how it's calculated. It's more like there was, you know, say -- say 15 isotopes, you know, it's like 15 different major incidents he would have had to have been involved in, but --

MS. MUNN: And that's so unlikely --

MR. ALLEN: -- should pretty well bound a 30-year career, I would think.

MS. MUNN: That's so unlikely as to be unreasonable.

MR. GRIFFON: Yeah.

MS. MUNN: And that's not --

DR. MAURO: This is John. I agree, this goes to the matter of does the dose reconstructor apply this at the right times. And of course it's going to be his judgment, I guess, looking at his particular case. If he's got a person there that's worked for 30 years, does have some bioassay data that would indicate he had some intakes periodically and perhaps even chronically, at some point he has to make a judgment whether he's going to go with the real data and do I guess a realistic case or -- and come in underneath, or go with the high five approach and come in underneath. Either way, what I'm hearing is when he makes these judgments, in the end this person's going to come in with a dose that is non-compensable. So there's a -- I could see where there is -- the optics, to use Hans's term, could be difficult in that the same approach -- from an implementation side, you're -- a situation is created where there's an awful lot of judgment left in the hands of the dose reconstructor, and I guess how -- how is there some assurance that in fact this -- this methodology is in fact being used -- the selection process is

correct?

MS. MUNN: Well, John -- this is Wanda -- from my viewpoint, unless the case reviews that we see lead us to believe that there is a systemic error being made by the reconstructors in this -- in these cases, I don't see that there's an issue. There's always going to be a matter of judgment in any of these cases we pick up --

DR. MAURO: Yeah, that's true.

MS. MUNN: -- so unless we see that there's a recurrent problem as we review cases, I don't see that this is an issue we need to beat to death.

DR. MAURO: Yeah, I agree. Say, Hans, I don't know if you could -- do you remember off the top of your head, but in general are you seeing that this problem doesn't emerge, that it is being used appropriately?

DR. BEHLING: Well, I have one case currently, and I already made reference to it earlier in context with something that came up, but I do have a case currently among the 20 cases in set four where an individual had numerous urinalysis -- 157, I believe -- all of them very high, well above MDA for uranium. He was

in an environment that involved recycled uranium, so there are obviously contaminants in addition to uranium. He had numerous chest counts that indicated at least trace quantities of uranium and plutonium. And the guy opted to go with the 12 radionuclides, and -- I haven't run it yet, but it may very well be that the 12 radionuclides will still end up with a higher dose, but I have to say, in the absence of running that data, you would be hard-pressed to come to that conclusion.

MS. BEHLING: I think the other issue that we're discussing on this particular item is looking at a long-term employee or an employee in some job function that would be at higher risk that's been unmonitored, and we're trying to -- am I -- and we're trying to determine will this high five approach -- and I think, based on what David Allen just said, that we're using all of these different radionuclides and it's as -- it's as if there would be 15 acute intakes, possibly, that helps to clarify it in my mind a little bit better.

DR. BEHLING: The improbability that even a long-term employee would exceed the 12 or 28.

MS. BEHLING: Right, we're looking at unmonitored, not necessarily would the person -- I think the dose reconstructors pretty well know to look at the bioassay data and if there's -- in most cases we see, if there's bioassay data there that they think may give some kind of a dose, they will run IMBA. But if they don't have to -- obviously they can run the efficiency process; it's easier for them -- but that's I don't think what we're talking about in this particular issue, it's unmonitored --

MR. GRIFFON: Well, I don't think we're looking at unmonitored, either. I think --

MS. BEHLING: Oh --

MR. GRIFFON: -- the term is unexposed or lightly exposed.

DR. BEHLING: Yeah, it's a combination of everything --

MR. GRIFFON: It's a combination, but I think that's sort of the intent (unintelligible).

DR. BEHLING: And in so many cases, you know, the dose reconstructor actually ran IMBA and said this is what I would get, and you're getting the benefit of doubt by me giving you

the 12 or 28, and that's the right way to do it. This way there's no question that the -- the assumed dose is always higher than the empirical dose. And we have plenty of cases where that was done.

DR. NETON: I'm curious if the --

DR. MAURO: Hans, I didn't quite follow that. Are you saying that you're seeing cases where the dose reconstructor did both --

DR. BEHLING: Yes.

DR. MAURO: -- that he used the monitoring data to see what dose that generated and then --

DR. BEHLING: Exact--

DR. MAURO: -- used the default --

DR. BEHLING: Exactly.

DR. MAURO: Oh, okay.

MR. ALLEN: Well, just -- this is Dave Allen. Just to clarify that, they ran like the 02 numbers to predict a urine, right, for a -- what 02 would give you, then com-- just visually compared that to the -- the bioassay the guy actually had. It's not like they went through a hard core internal dose estimate (unintelligible) --

DR. BEHLING: No, I think they actually ran the

urine data and basically said what's the inhalation, and then basically went through the hoops of trying to determine what would be the real dose if I relied on -- on bioassay data. We've seen (unintelligible).

DR. NETON: That's certainly not the most efficient way to do it.

DR. BEHLING: No, I realize that, but I think when you get to the cutting edge where you're not sure which one is going to give you the higher number, then you almost have no choice.

DR. NETON: No, but as you know, it's much easier to take an acute intake at day one and generate a series of curves and say are all those curves above all the datapoints that I might have for the person. It's much more efficient.

MR. ALLEN: Generate them (unintelligible) like TIB-2, it's a one-shot deal and you just --

DR. BEHLING: Oh, I realize that (unintelligible) --

DR. NETON: You have one intake and you generate the bioassay projections and -- and then you can say based on those bioassay projections, this is much higher than anything

I've seen in any of the (unintelligible) --
DR. BEHLING: Well, the -- the bioassay may have confined itself to a lot of uranium and -- and then you're sort of hard-pressed to determine whether, you know, you can just make the comparison between uranium bioassay data against 12 or 28.
DR. NETON: Well, I mean if you had uranium --
DR. BEHLING: Well, I realize uranium is part of it, but you know, again --
DR. NETON: That's my point. I mean if the uranium bioassay's below the uranium intake that you'd assign, and then --
DR. BEHLING: Well, that -- that's the first cut.
DR. NETON: That's really the way it's supposed to work. I mean I don't know what you have for that particular case. Maybe somewhere imbedded in the files are some runs and possibly just didn't get written up in the dose reconstruction. I mean it -- I've got to believe at some point they ran something to show that the TIB numbers were higher than the --
DR. BEHLING: Oh, yeah, yeah, they did. They

did, and they state so. I mean they state that the --

DR. NETON: Well, you were talking about a current case you have where that wasn't --

DR. BEHLING: No, no, not on this one. The current case -- I'm sure that --

DR. NETON: Different story, yeah.

DR. BEHLING: -- the person didn't look at all.

MR. GRIFFON: Well, I think -- getting back to finding seven here, I think, you know, part of this comment can maybe be covered in NIOSH -- Jim, you offered to -- or you offer that the staff would develop a clarifying approa-- you know, a couple paragraphs clarifying this approach, and I think that might also address this -- this question of, you know, the six months versus ten years versus 30 years and (unintelligible) --

DR. NETON: Yeah, that's a little different issue. We were tal-- I was speaking about addressing the high five and how they --

MR. GRIFFON: Right.

DR. NETON: -- they arrived at being bounding, and now I think I'm hearing another write-up, which would be a different issue, and that's

how one applies the high five or the bounding approaches to --

MR. GRIFFON: I guess I was going to add another paragraph to that, yeah.

DR. NETON: Yeah, and -- yeah, I don't know that we're going to act much differently than what we've been doing. There is some level of judgment required. You know, whether a person was unmonitored, it's pretty clear. Lightly monitored, there's some bioassay. I think we've got a direction for dose reconstructors, you need to compare the bioassay. Possibly this -- this gray area where it's -- I don't know, between lightly and -- my -- my guess is, and I don't do these every day, but that they tend to be conservative in the application of this and would not use it in cases where there was a gray area, but how we define that in a -- in a paragraph, I'm not sure. I -- we can -- we can try. I'll commit to that.

MR. GRIFFON: All right.

DR. BEHLING: And before you go on, Mark, I guess I do have a question because when the dose reconstructor receives a case isn't it true that someone screens that case ahead of

time and says treat this as a maximized dose reconstruction based on preliminary assessment, in which case he may not pursue any subjective interpretation of the data. He accepts the notion that this is a maximized dose reconstruction and that's just as far as he's going to evaluate it.

DR. NETON: I think --

MR. ALLEN: That's -- that's --

MR. HINNEFELD: Not entirely, no.

MR. ALLEN: I think -- like an administrative way of trying to triage claims, but the dose reconstructor's the one who's responsible.

DR. NETON: He's got the ultimate responsibility.

DR. BEHLING: Because in one of the Proc. 6 there's a statement about the Task 2 people who will identify this or -- or essentially label this as a non-compensable case versus --

DR. NETON: Well, I think there's some of that judgment made, but -- but oftentimes it's -- it's the very clear-cut cases get triaged that way where maybe you have zero bioassay data. The person is a -- an administrative type and it would go down one path and -- and, you know,

it may be a different set of dose reconstructors would be assigned those type of cases, but --

MR. ALLEN: It's not unusual for them to triage it one way, the dose reconstructor get ahold of it and say no, that's not going to work, you know.

DR. NETON: These are -- these are rough cuts.

DR. BEHLING: Okay. But I mean the -- the -- the ultimate person who makes a -- or a final decision is in fact then the dose reconstructor.

DR. NETON: Yeah.

DR. BEHLING: He can overturn that -- that assessment.

MR. HINNEFELD: Yeah.

DR. NETON: Yeah, he signs it as having, you know, done the case. Or she, (unintelligible).

MR. GRIFFON: Can I -- I think we're going on to finding number eight, but can I -- is this a good time for a short comfort break here?

DR. WADE: I think so.

MR. GRIFFON: And then I don't know how -- Lew, how long can we go today or how long can people go? I mean --

DR. WADE: It's a matter of personal stamina.
MR. GRIFFON: You know, I was -- I was personally thinking --
UNIDENTIFIED: I think Lew's done.
MR. GRIFFON: I was personally thinking 4:00 or 4:30, so...
DR. WADE: Well, let's say 4:30.
MR. GRIFFON: All right.
DR. WADE: Is that merciful?
MS. MUNN: That's merciful.
MR. GRIFFON: I didn't know if anybody there had flights to ca-- you know, flight issues.
DR. NETON: Flight issues?
DR. WADE: I think we have no flight issues.
MS. MUNN: We're trying to avoid that, remember?
MR. GRIFFON: Yeah, I know.
MS. MUNN: We're trying to get around that.
DR. WADE: Okay, let's take ten minutes, come back and we'll push hard to 4:30 and --
DR. BEHLING: Yeah, let's try to move this on.
DR. WADE: Okay, thank you.
(Whereupon, a recess was taken from 2:30 p.m. to 2:48 p.m.)
DR. WADE: ... people are mostly here. Who do

we have on the line, please?

MR. GRIFFON: Mark Griffon.

MR. PRESLEY: Bob Presley.

MR. GIBSON: Mike Gibson.

DR. MAURO: John Mauro.

MR. KOTSCH: Jeff Kotsch.

MS. HOWELL: Emily Howell.

DR. LIPSZTEIN: Joyce Lipsztein.

DR. WADE: Okay, well, you're all welcome back. You're troopers to be back. So let's -- let's continue.

MR. GRIFFON: All right. We're on finding number eight, I believe, OTIB-1, finding eight.

DR. LIPSZTEIN: I think OCAS -- NIOSH has agreed with our commentary.

MR. GRIFFON: And does this -- is this -- more details needed to easily verify the values. Is this part of what we're going to get as this explanation, or is this going to be included in those tables? I'm not exactly clear, the response there.

MR. HINNEFELD: Well --

MR. GRIFFON: In a subsequent revision these'll be -- more details will be provided, is that what we're agreeing on?

MR. ALLEN: I think we're definitely agreeing on an evaluation and we suspect that's going to lead to a revision.

MR. GRIFFON: Okay.

MR. ALLEN: Does that work?

MR. GRIFFON: Okay, evaluate and revise as needed. Right?

MS. MUNN: Now originally we had said a revision was going to occur.

MR. ALLEN: Okay, I think you can pretty much say yeah, a revision is going to occur.

MS. MUNN: Good. Mark needs to track it.

MR. GRIFFON: All right, revise. And finding nine? I think we discussed --

DR. LIPSZTEIN: A finding -- can I -- or someone wants to speak?

MR. GRIFFON: Go ahead, Joyce.

DR. LIPSZTEIN: Okay. Finding nine, for me, is a big technical issue. I disagree with both arguments, the NIOSH response. We -- when we wrote the report, SC&A, we made a long explanation with a long list of -- for all radionuclides that were cited from the document showing that for most of them if you had used ICRP-68 instead of ICRP-30 you would get a more

claimant favorable result. Hello? Hello? Can you -- can you hear me?

MR. GRIFFON: You're still on -- yes.

MR. ALLEN: Yep.

MS. MUNN: Yeah.

DR. LIPSZTEIN: Okay, 'cause there was a buzz.

MS. MUNN: Yes, there was something strange.

DR. LIPSZTEIN: Yeah. So what happens is -- and we wrote that -- that when -- the document says that -- they -- they used ICRP-30 models instead of the new models, and they say that it is necessary -- it's not necessary to use the exact values, but it must be shown that the values are indeed a likely overestimate. And then in this document (unintelligible) were calculated for ICRP-30 and ICRP-68, and they try to show that ICRP-30 methodology was -- take a more claimant-favorable number than ICRP-68, but there were two mistakes on this. The first one was that when ICRP-30 and ICRP-68 were compared, instead of comparing type F with class D, type M with class diablo, type S with class Y, they used for ICRP-68 the most soluble form of the material, and for ICRP-30 they were -- used the material class system to calculate

the intakes, what really happened. So there are two problems. The first, that when you use the most soluble form of the material, this doesn't give the higher dose because intakes when -- you don't -- don't come from the intake, you come from the bioassay results, from urine results, so you are going back. So sometimes type S -- if you have the same excretion in urine, sometimes type S gives a higher result than type F, a higher dose than type F. Because of that, if you want to compare ICRP-30 with ICRP-68, you have to compare class type S, class D with type F, class diablo with type M and class Y with type S. When you do this for most of the radionuclides, then we went on with that big list of them, each one by each one, and we showed that for most of them if you use ICRP -- the new ICRP methodology you got numbers that were -- doses that -- intakes and doses that were higher than if you used ICRP-30. And was not something that you (unintelligible) just throw out, for example, for plutonium you -- for type M plutonium -- for type S plutonium, for example, you got a difference -- like if

you used ICRP-30 you would get a dose and an intake between 15 percent and 22 percent of the dose using ICRP-30. So it's substantial. The variation was because of the number of the (unintelligible) that the -- if you have a urine sample -- it doesn't say -- the numbers that were written in the document, it doesn't say when it was taken, how many days after the intake was it taken, so you have to analyze to -- to right number of days and that's what was done also in the document. And we went through extensive list and there was only -- not to say that all of them ICRP -- the new ICRP methodology gave high results, but you had some like (unintelligible), for example, that would give -- the ICRP-30 would give a -- a more claimant-favorable result, but for most of the nuclides, especially the most important ones like uranium, plutonium, cobalt, strontium and magnesium, you get a higher dose and a higher intake if you use ICR-- the new ICRP method instead of ICRP-30.

DR. NETON: Well, I think the same argument and logic applies to what we discussed about a half an hour ago in that, you know, we've agreed to

go back and put a few paragraphs in there explaining our logic for using these values and whether or not we believe, for instance, the ICRP-30 calculated intake of say 160 nanocuries for plutonium is a bounding estimate for the class of workers. Joyce raises a lot of good points on -- on when you're trying to mix and match metabolic models, and I take no exception to that. But I think we need to do a better job explaining why we believe that the 100 nanocuries or so for each of these radionuclides is -- is a credible overestimate for, again, the workers that we're applying this to.

I would -- I think I do remember some of these analyses, and I think we need to remember also that this applies primarily to non-metabolic organs. I don't think it applies to lung doses or anything like that. So it applies to organs that really are not in the metabolic model and so some of the calculations I think might have been a little bit off, but -- but again, I think the argument to be made here is that, you know, we need to justify why we believe these are high values.

MR. GRIFFON: Okay. Yeah, you -- and you -- this -- this is covered in the few paragraphs that you offered earlier. Right, Jim?
DR. NETON: I hope so.
MR. GRIFFON: Same thing, yeah. Okay, and the next finding 10 is a little different question.
DR. LIPSZTEIN: Yes.
MR. GRIFFON: Go ahead, Joyce.
DR. LIPSZTEIN: No, I just -- if I -- if I was someone that didn't get -- I was just thinking if I'm the client, if I'm someone that I'm arguing to get a compensation, I would ask NIOSH why did you chose the five largest intake instead of the largest intake.
DR. NETON: Again, I think it's the same -- same discussion.
MR. GRIFFON: Same -- yeah.
MR. ALLEN: Slightly different, I mean the high five rather than the highest one is -- is arbitrary. I mean there's no -- well, no doubt about that. I mean --
DR. NETON: Yeah, again, but you need to look at it --
MR. ALLEN: -- it's intended to be an overestimate, the highest intake or the highest

five intakes or the highest ten intakes should represent a high -- a bounding estimate for most non-monitored workers or low exposure workers.

DR. NETON: The thought just occurred to me that I think we're on the cusp of coming up with a Savannah River coworker model, or am I dreaming that?

MR. ALLEN: I think you're dreaming that one.

DR. NETON: Well, scratch that thought. I was just thinking if we had -- if we had a model developed since then or were about to publish one, it would easily address this issue by showing that the coworker -- a coworker model would be substantially lower in assigned dose than what we're doing here, but apparently I dreamt that over the weekend, so scratch -- scratch that.

MS. MUNN: It's the snow.

MR. ALLEN: This particular comment does bring up an interesting question. I mean there's no reason to believe that an average of the highest ten won't overestimate the majority of workers out there in Savannah River, so I'm wondering if some of these smaller changes in

dose, if we increase doses for some of these -- or at least evaluate, based on increases from some of Joyce's comments versus the decrease that would be caused by the highest ten, if we're not acceptable to say okay, we're good to go as-is.

DR. NETON: Yeah, we're thinking on the fly here, and I think maybe -- my thought was -- behind this is that we -- we have to have some empirical thought process between why is say 160 nanocuries bounding and if -- for a non-monitored worker who probably shouldn't have been monitored and -- you know, I'll use the extreme as an example; the administrative support staff, secretarial type, who barely entered the production environment -- I think we can build the argument in this few paragraphs as to why it's unlikely that this person who was not on the production lines, not opening drums, not doing the real mechanical processes, would fall in that category. I think we need to build that case.

MR. GRIFFON: Well, and Jim -- Jim, your comment was kind of leading to what I've been thinking, which is, you know, is -- is coworker

model for Savannah River being developed that's consistent with Y-12 and Mallinckrodt and, you know, that -- that sort of approach that you've been using at many of the other sites.

DR. NETON: Yeah, and I -- I thought that there was some efforts going down that path -- maybe we're not as close or far along as I -- as I had thought, but -- and that would -- that would be the ultimate, I think, 'cause then we could compare it to the monitoring data that are out there. And in fact this is kind of what we try to do. I mean rather than resort to coworker distributions, you take the highest five intakes that were assigned and -- and almost by definition those are going to fall somewhere in the coworker -- you know, the high end of the -- the very high end of the coworker model. It's just, you know, how do you -- how do you convince folks of that. It's something that's fairly intuitive, I think, but you know, can you put a slam dunk on it by -- you know, by looking at some existing processes and...

MR. GRIFFON: Well, yeah, and I guess that -- you know, back to my point on that, I think your -- your evaluation report will go along

way to helping us to clarify this, though. But I mean back to -- to my other point on this whole thing, which is -- sort of falls in with Joyce's evaluation of 68 versus 30, I mean if -- if you had -- if NIOSH had independently evaluated these intakes, then you would have used 68 if you went back to the -- you know, the raw data and said okay, here's the -- here's the incidents, let's re-evaluate the data itself, instead of taking just the intake from those cases.

DR. NETON: Yeah.

MR. GRIFFON: So you know, and -- and this issue would go away completely. But anyway, I think we'll wait for your evaluation report I think --

DR. NETON: Yeah.

MR. GRIFFON: -- I think, at this point, yeah.

DR. LIPSZTEIN: One of the thing -- I don't know how valid this is, but I was just thinking if I was someone that was applying for compensation, so for example if you look at the -- for example, for plutonium 241, there was that very high intake in '62, and then there was a high intake in '77 also, and then if I

worked in the '60s period, I would -- I would rather use the -- I would actually (unintelligible) I would -- why didn't they use the data from the '60, why did they mix with data from the '70s and -- and I get a lower intake on the calculation of my dose when I was not there in the '70s, for example. (Unintelligible) you know, I know (unintelligible) you have to -- you have to find a (unintelligible) criteria to use, but the criteria is objective and if you think on the side of the client, he might, you know, go with (unintelligible) and say look, I -- you know, this -- this was the -- where the largest intakes et cetera (unintelligible) they were from a time I was not working there. And that's why the -- the -- the mean of the five is lower than the highest intakes from the period I was working there.

MR. ALLEN: But the idea that it was -- we had some, I don't know, 6,000 intakes estimated by Savannah River and they were done using ICRP-30 methodology is why we had all the consternations in there, but they were throughout time, so we picked the highest five

for each isotope that there was an intake calculated for. If we were to refine that to a -- say a decade, then by definition there's going to be some -- some in there that are much lower in that decade, so the average should drop. So I mean it's just a question of -- you know, is high five throughout -- high five throughout time is going to be higher than the high five for any given decade, generally.

DR. LIPSZTEIN: Depends on the decade (unintelligible) --

DR. NETON: It does, but --

DR. LIPSZTEIN: -- and I know you have to have a criteria, I don't argue with that. I'm just saying that if I was someone claiming for something, I wouldn't -- you know, and I understood what was on those tables, I wouldn't let it go like that.

MR. GRIFFON: I think -- I think at this point we'll wait -- you know, Jim's offered an evaluation report. I think we need -- you know.

DR. LIPSZTEIN: (Unintelligible)

MR. GRIFFON: Short evaluation report will help us, and then we can go from there. Right, Jim?

Is that --

DR. LIPSZTEIN: Okay.

DR. NETON: Yeah.

MR. GRIFFON: All right. Number 11?

DR. LIPSZTEIN: Number 11 -- I think Jim explained that at that time IMBA didn't have the -- all the numbers. Right?

MR. GRIFFON: Oh, right.

DR. LIPSZTEIN: And they had to use surrogates, and now this can be (unintelligible), is that -- did I understand right?

MR. ALLEN: Yeah, that was discussed earlier, I remember, anyway.

MR. GRIFFON: So this is the one revised as needed, sort of.

DR. NETON: Right.

MR. GRIFFON: Yeah, and it's -- so you didn't have the -- the most current version of IMBA, obviously.

DR. NETON: Right.

MR. GRIFFON: Right. Okay. Number 12? Oh, we've gone through the IMBA. A new topic, anyway.

MS. MUNN: Oh, goody-goody.

MR. ALLEN: Well, if nobody else will speak up

--

MR. GRIFFON: Yeah, go ahead.

MS. MUNN: Please do.

MR. ALLEN: This one our issue -- if I'm not mistaken, the comment was essentially if we assumed tritium was organically-bound tritium, the doses would be higher, and we agree. What we -- the problem is we cannot find any reason to believe at Savannah River that organically-bound tritium would be a significant -- significant hazard compared to other forms of tritium.

MS. MUNN: That's good news.

DR. MAURO: John Mauro. We've been discussing this amongst ourselves also, and we feel that, given the -- that organically-bound tritium I believe may have up to a four-fold higher dose conversion factor -- I'm not quite sure, in that range -- and that the percent of exposure, though, to organically-bound tritium at Savannah River -- at least in the case of Savannah River, is -- is very small, so bottom line is this issue is really an extremely minor issue. And --

MR. GRIFFON: So in your --

DR. MAURO: -- so Hans or Kathy --
MR. GRIFFON: -- in your opinion --
DR. MAURO: -- did I correctly characterize this?
DR. BEHLING: Yeah, I think you said it. I guess the assumption of a ten-day biological half-life (unintelligible) in 40 days so it raises the (unintelligible) time integrated dose, but the percent of the organified tritium is so small as to make a difference as maybe one or two percent or something like that, which really is an insignificant -- has an insignificant impact on total dose.
MR. GRIFFON: So in your opinion, any -- any modification necessary to the TIB or no?
DR. BEHLING: No.
MR. GRIFFON: And did this finding cover metal tritides? I thought it also covered -- I guess just OBT, huh?
DR. MAURO: That's a separate one, yeah.
MS. MUNN: Just organics.
MR. GRIFFON: Metal tritides is separate? I don't see it.
DR. MAURO: I think they have it later (unintelligible).

MR. HINNEFELD: Metal -- metal tritides is --
MS. MUNN: Uh-huh.
MR. GRIFFON: Oh, okay.
DR. MAURO: We'll see, but I guess the only point being made here is that there's reason to believe that there's a large fraction of the tritium exposure was to organically-bound tritium. Well, yeah, then we have a three or four-fold (unintelligible), but if it's not, as is the case at Savannah River, I can't see really worrying too much about this.
MR. GIBSON: This is Mike Gibson. So you're speaking right now specifically at Savannah River and organically-bound tritium and, just as Mark said, not necessarily other forms of stable tritides?
DR. MAURO: Yeah -- yeah, there were these -- another issue of I guess metal tritides that was -- I think that's here or -- I'm not sure if that's discussed with a specific -- other procedures, I'm not sure, but -- other separate issue, and I'm not quite sure where we came down on that one.
DR. BEHLING: I think it's part of the revised TIB-11, I think. Don't they discuss metal

tritides in TIB-11?

MR. GRIFFON: I guess that's what I was asking. It's coming up next, so we'll (unintelligible) in a second here. But yeah, OB-- so OBT for the -- for Savannah River Site for this TIB-1, you don't think that the TIB has to be modified in any way? I mean is -- is clarification needed that if it's likely that -- if -- if data suggests that a person was, you know, exposed to organically-bound tritium in any significant way, then -- then consideration should be given for a different -- I guess that's obvious, you know. I think that a dose reconstructor would do that if -- if data was there to present itself and -- so I guess no -- no change is needed. Is that what --

MS. MUNN: Yeah.

MR. GRIFFON: -- I'm hearing?

DR. BEHLING: Perhaps a statement should be made that the issue of organified tritium has been looked into and there's no supportive data to suggest that it's there in significant quantities, which would then minimize the potential concern.

MR. ALLEN: You're talking about that statement

in the TIB --

DR. BEHLING: Yeah.

MR. ALLEN: -- or in the review of your --

DR. BEHLING: In the TIB, so that you can take a preemptive position in saying that this has been looked into and if there is data to support that statement perhaps then that would put that whole issue to rest.

MR. ALLEN: I'm kind of worried about it confusing people more than clearing things up if it's in the TIB.

DR. BEHLING: Well --

MR. ALLEN: It'd be great in the review, you know, or some documentation here.

MR. GIBSON: I couldn't hear that. What was that again? Who was talking?

MR. ALLEN: I'm sorry, this is Dave Allen. I was -- me and Hans were just talking across the table here and he's suggesting possibly a -- a few sentences in the TIB saying that organically-bound tritium was looked into and it's not an issue at Savannah River. I'm just wondering if it might not confuse the issue more than clarify it if it's in the TIB, and suggest maybe the -- somewhere in this review

might be a better place for it.

MR. GRIFFON: Yeah, and I think it's in the NIOSH response right now as -- you know, what you said is so far OCAS has not conceptualized an exposure scenario da da da da da da. Could I --

DR. LIPSZTEIN: Yeah, because -- I'm sorry -- because the way it's written makes people more confused 'cause it only says organically-bound tritium historically has been ignored for occupational dose assessment, and the Savannah River Site assumes that there is no significant quantities of stable metal tritides.

MR. GRIFFON: Oh, that's different.

DR. LIPSZTEIN: So it just says that this historically has been ignored and then nothing else about organically-bound, so maybe -- would say that there are no significant quantities of SMT and OBT, also.

MR. ELLIOTT: Another thing to evaluate and --

MR. GIBSON: This is Mike Gibson. Could I ask this question of I guess someone from NIOSH, and maybe this is not the right place for it, but when -- if someone gets some illness, how -- you know, whether it's -- I know you guys

deal with subtitle B and Labor deal with E, but how do we consider the combination of the radiation dose and possibly the toxicity of the metal that this tritium that's bound to that's lodged in the lungs and -- and the synchronization of -- of those two elements that may have caused whatever illness the people have?

DR. NETON: Well, I guess the short answer, Mike --

MR. GRIFFON: I guess, you know, in answer to your question, Mike, I think it's up to -- to Labor to do that under subtitle E, but --

DR. NETON: Right, we're -- we're not addressing at this point any -- any synergistic effects between other agents and radiation, mostly because we don't have the models available to do anything in that area (unintelligible).

MR. HINNEFELD: That'd be Labor, anyway.

DR. NETON: And Labor -- subpart E, as you -- as you pointed out, is -- is tasked with doing that.

MS. MUNN: We are not charged to do so.

MR. GIBSON: So would it -- would be our --

would it -- this is Mike again. Is it under our charge to ask the Department of Labor to make sure that they are considering that, or should we raise that issue with them or who -- how do we make sure this issue is addressed?

MS. MUNN: It wasn't -- this is Wanda. It wasn't in our charge when we were originally established, because that's the question I asked of several people at the time and read the documentation very carefully because I was concerned about having to express some opinions or develop expertise with respect to something other than radiation effects. I was hesitant to do that.

DR. WADE: It's not the responsibility of the Board. Certainly any individual member of the Board could comment to Labor, as they might wish --

MR. GRIFFON: Right.

DR. WADE: -- on the importance of that issue. But it's not the responsibility of this Board as constituted to look at that issue. Again, I would encourage you, if you have strong feelings, to let those feelings be known on a personal level.

MR. GIBSON: Okay, thank you.
MR. GRIFFON: Right, right, we don't advise Department of Labor.
Okay, so -- but -- but I'm just going back -- I guess Joyce is reading from the TIB, and that to me -- I mean that -- that raises a question of -- of -- in my mind, anyway, of NIOSH's response here. I mean I get the opinion, if I'm reading this right, from -- from your response that -- that -- that NIOSH has looked into this, that it's not just that historically OBT has not been considered, as is stated in the -- in the OTIB now. It's that NIOSH has investigated this and determined that no exposure scenario -- there's a difference there. It's subtle, but I think it's an important difference because I think if -- if workers at Savannah read that and said well, yeah, we know historically they haven't considered OBT, that's why we're concerned about it, or what -- you know, someone could say that. And I think it's different for NIOSH to say that we've looked at all possib-- you know, not all possible, but we've looked at, you know, all exposure scenarios we can think

of and we don't think OBT would be a -- have any kind of impact on the overall dose. Is that what was done here or...

MR. ALLEN: That's basically it, Mark, and we agree that the sentence in the TIB is very poorly worded and we -- I guess it's just a debate, you know, between us what's -- whether it's better to revise that or to eliminate the issue altogether from the TIB.

MR. ELLIOTT: We can certainly revise the sentence, but it's -- am I hearing that it's our understanding that we've not identified any processes or relevant exposure scenarios that would lead us to believe there was a high potential for organically-bound tritium?

MR. ALLEN: Right.

MR. GRIFFON: Right.

MR. ELLIOTT: And I hear SC&A must have come to that same conclusion in their evaluation of this piece. They don't find any process-related commentary that leads us to believe there's organically-bound tritium in --

MS. MUNN: Of any significance, yeah, (unintelligible).

MR. HINNEFELD: Of significance.

MR. ELLIOTT: Of significance.
MR. HINNEFELD: There would be some organically-bound tritium there, but we don't believe it's a significant exposure source for the workers --
MR. GRIFFON: Right.
MR. HINNEFELD: -- compared to the other tritium -- tritium forms, and so that's our opinion and I believe that's --
MR. ELLIOTT: So it goes back to how we -- how we characterize what we've done here and how we explain and communicate what we've done.
MR. HINNEFELD: Right.
MR. ELLIOTT: So it's -- we will take that to note.
MR. GRIFFON: Okay, yes -- yeah, thanks for that clarification, Joyce. I mean
MR. ELLIOTT: Open for suggestions.
MR. GRIFFON: -- so I put -- I put that NIOSH will consider revising or deleting language in TIB related to organically-bound tritides. SC&A agrees -- I'll put that first, that SC&A is in agreement with the NIOSH response, and NIOSH -- additionally, NIOSH will revise or delete language in TIB related to organically-

bound tritides. Is that okay?

DR. LIPSZTEIN: Okay.

MR. GRIFFON: Number 13.

DR. LIPSZTEIN: The uncertainty problem. I agree with some of the arguments saying that there's an overestimate of the dose, given the high five. On the other hand, we know that the IREP program, it depends a lot on the uncertainty issue. If the uncertainty is higher, you get a higher probability of getting compensation. Now when you consider the intakes from the high five, you have some intakes that were taken in the early years, so they had a higher -- high uncertainty linked to them. So I think something has to be written about the uncertainty. I might even consider okay, it's an overestimate, the high five, and so we don't need to consider the uncertainty. But something has to be said about uncertainty because we know IREP depends on -- the result of IREP depends on the uncertainty.

DR. NETON: Well, IREP has a lot of uncertainty other than the dosimetric uncertainty. In fact, the radiation effectiveness factors are all in there with a fair amount of uncertainty,

but I suppose -- I don't have a fundamental argument against saying why uncertainty's not included. I would object to including uncertainty in that analysis if we do agree that these are bounding values 'cause otherwise why have a bounding value. Why not use our best estimate of the maximum intake. I mean then we -- you know, it doesn't --

MR. HINNEFELD: Our best estimate of the person's intake. Remember --

DR. NETON: Yeah -- yeah, right --

MR. HINNEFELD: -- these are overestimates for --

DR. NETON: Right, and that's my point.

MR. HINNEFELD: -- this person, and so that's just the general approach on it. (Unintelligible) overestimate or an underestimate on a quantity that we put in IREP we enter as a constant so IREP has to sample a distribution, it samples that number every time.

MR. ALLEN: I think Joyce was just saying that we should --

MR. HINNEFELD: Explain it in --

MR. ALLEN: -- include that statement --

MR. HINNEFELD: -- the TIB, right.
MR. ALLEN: -- yeah, I --
DR. NETON: Yeah, I don't have a problem with that.
MR. HINNEFELD: That -- that's appropriate.
DR. NETON: If we -- if we include a statement saying that a constant will be used and -- because of, you know, way -- a rationale as to why.
MR. GRIFFON: Okay. Number 14.
MR. HINNEFELD: Number 14 I thought was sort of a summary comment 'cause it kind of encompasses many of the other comments --
MR. GRIFFON: Okay.
MR. HINNEFELD: -- that were made, unless I misinterpreted.
MR. GRIFFON: Okay. That's fine, then we've covered that one. Is that a separate finding even, or can it be deleted as a finding?
DR. LIPSZTEIN: Yeah, it could -- yeah, it -- everything that is -- is said again, yeah. It's just a (unintelligible).
MR. GRIFFON: I'm asking, I'm not stating it.
DR. LIPSZTEIN: No, no, it's just -- just a repetition, yeah.

MR. GRIFFON: So just drop -- I think just drop the finding 'cause it's repetitive. Right.

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: All right. On the next -- we're on to TIB-3 --

MS. MUNN: Which is then --

MR. GRIFFON: -- and for almost all of these I have see TIB-11 in new review.

MS. MUNN: And it's -- it's gone, anyhow.

MR. GRIFFON: Right, so we -- we've -- have we committed -- Lew, you have a listing of these, or someone is tracking this -- or John, maybe, TIB-11, have we assigned that?

DR. MAURO: If it's not on the list we'll put it on the list and we'll -- but I believe it is. Okay -- Kathy, did you bring the list with you?

MS. BEHLING: Yes, I did, and it is on the list.

DR. MAURO: Okay, thank you.

MR. GRIFFON: So I don't know that we have to go through these if...

MS. MUNN: I think we can dispense with three, can't we?

DR. BEHLING: Yes, yes.

MR. GRIFFON: Now going to the bottom of the page, TIB-4, again, we also committed to reviewing TIB-4, P -- Rev. 3-P (unintelligible) like that?

MS. BEHLING: Yes.

MR. GRIFFON: What was the number, for the record, TIB --

DR. MAURO: TIB-4, Rev. 3-P-1.

MR. GRIFFON: P-1? Okay.

DR. NETON: P-1? PC change?

MR. HINNEFELD: PC -- probably PC-1.

DR. MAURO: (Unintelligible) were requested to add that to the list, which we will.

MR. GRIFFON: So I'm not sure, again, if we need to -- well, do we need to go through these if -- if everyone could look down them and see if there's anything we need to go through or if they can wait for the revision. Most of them refer to the fact that things have been changed in the revised TIB.

MS. MUNN: Item six, is that still --

MR. GRIFFON: Yeah, that's what I'm looking at is number six.

MS. MUNN: -- still hanging out there?

MR. GRIFFON: Stu, on item six, is there -- I

see disagree.

MS. MUNN: Yeah.

MR. GRIFFON: And then it refers to TIB -- to --

MR. HINNEFELD: Yeah, actually it refers you to the next response, which refers to the revision.

DR. LIPSZTEIN: The response for seven says that --

MR. GRIFFON: A major revision. Right?

MR. HINNEFELD: Yeah.

DR. LIPSZTEIN: -- a revision.

MR. HINNEFELD: So if that -- so the first part there has to go to the -- to the new -- the revised -- the review of the revised version we just talked about. Right? It has to wait for that since the response says it's based on that. And then the parenthetical number two here has -- that has to do with breathing rate, which has kind of been worked over pretty hard on Bethlehem -- in the Bethlehem Steel context, I think, so I don't know where we stand exactly on that today.

MR. GRIFFON: Well, I was going to ask that -- okay, let's -- let's leave that one for a

second and we'll come back to that. Finding number eight, I think this was also discussed -- discussed in Bethlehem, this -- the one percent --

DR. LIPSZTEIN: Yeah.

MR. GRIFFON: -- per day question, and there's a disagreement. But NIOSH is developing a generic position on this, aren't you?

DR. NETON: What's the specific issue?

MR. HINNEFELD: Residual contamination and how quickly it --

DR. BEHLING: One percent per day.

MR. HINNEFELD: -- how -- how quickly it changes. That's the residual contamination model.

DR. NETON: Residual contamination model, right, has been revised. We agreed to review this at other sites where it may be applicable, that's correct.

MR. GRIFFON: And you're -- are you going to try to establish some kind of generic --

DR. NETON: Yeah, that's a -- that would be more of a generic approach -- well --

MR. GRIFFON: At least generic guidance. Right? Yeah.

DR. NETON: Is there not a TIB that already has generic guidance?
MR. GRIFFON: I don't know.
DR. NETON: I thought -- well --
MR. ALLEN: There is for ingestion. We've --
DR. NETON: -- yeah, this -- this -- in the context --
MR. ALLEN: -- got several issues we're -- might be mixing up here.
DR. NETON: Right, but we do -- we did agree to -- to -- we agreed to review the residual contamination approach at all the sites, based on our experience at the Bethlehem Steel review. I think we did.
MS. MUNN: Yeah, I thought you did, too. So we can say generic guidance will be developed?
MR. GRIFFON: Am I confusing issues? Is -- Dave, did you say -- I think --
MR. ALLEN: Either you are or I am, Mark, I'm not sure.
MR. GRIFFON: I could be, that's for sure.
MR. ALLEN: No, I suspect I'm just forgetting what all we've committed to here, I just --
DR. NETON: Well, remember, I thought -- I thought --

MR. ALLEN: We keep (unintelligible) a list.
DR. NETON: -- and I'm speaking probably cold here -- I am speaking cold here so it's a little bit vague, but I thought -- remember at Bethlehem Steel how we came up with, you know, the air monitoring model that we used and -- and --
MR. ALLEN: That was all for ingestion.
DR. NETON: That was for ingestion.
MR. ALLEN: The -- Bethlehem Steel, the residual contamination was handled on -- on its own data, it was --
DR. NETON: Right.
MR. ALLEN: Actually I take it back, it ended up being that dilution model.
DR. NETON: Right, so we've adopted a slightly different approach. I think -- I think the best we can commit to here is go back and see what we committed to doing. I've forgotten, honestly, where this stands.
MR. GRIFFON: Okay, we'll -- we'll -- yeah, we'll agree --
DR. NETON: I don't want to -- I don't want to...
MR. GRIFFON: Right, this is not -- we won't

commit at this point on that action, but I think there was some -- some agreement on some sort of generic...

DR. NETON: I know with Bethlehem Steel there were two other bigger issues, which were oro-nasal breathing we committed to evaluating --

MR. GRIFFON: Right.

DR. NETON: -- and also the extent of ingestion at DOE facilities. And those are the two I'm very certain of. The third piece I'm a little fuzzy on.

MR. GRIFFON: And those two come down in items ten and 11, I think.

DR. NETON: Right, and if that -- if those are addressed there, we are going to -- that is true that we are working on generic guidance there. It would be its own separate TIB.

MR. GRIFFON: Okay, so -- so eight we'll leave -- we'll leave as a question mark, you know, let's look back at Bethlehem Steel, but possibly generic guidance. Nine I think is -- is the new revision -- it's being addressed in the new revision and we'll cover it there. Ten is, again, this breathing rate which was referenced a little earlier on I think also in

-- in finding six and the light worker model.

MS. MUNN: Yeah, we worked that one pretty hard.

MR. GRIFFON: Yeah, but the -- did we commit to -- is this part of that generic guidance?

MS. MUNN: My memory is that it was agreed that a generic guidance would be forthcoming with respect to the oro-nasal breathing thing, the light worker, et cetera. That was my memory. I thought we had that one closed and on a working list somewhere.

MR. GRIFFON: I -- I think so. Is that true?

DR. WADE: It's what I remember.

MR. HINNEFELD: (Unintelligible)

DR. WADE: Yep, we're saying yes.

MR. GRIFFON: Okay.

MR. ALLEN: Don't ask me, I've slept since then.

MS. MUNN: Twice.

MR. GRIFFON: And then number 11, do we have a similar response, or no response?

MS. MUNN: Yeah. Yeah, I think it was a similar response.

MR. ALLEN: That one I remember.

MS. MUNN: Yeah, they were both --

MR. GRIFFON: Yeah, okay. One-third of the way through what we intended to do. Okay, 3:30, shall we move on to the second set of 18?

DR. WADE: Might as well.

MR. GRIFFON: And at least -- at least make a dent in it if -- I'm not sure how far along we'll get, but at least move it ahead a little. Is everybody ready? I -- wait for you to the document in front of you or...

MS. MUNN: On your mark, get set --

MR. GRIFFON: Get set --

MS. MUNN: -- go.

MR. GRIFFON: -- take a deep breath and go. All right. First page, case 21.1, finding -- finding one. And -- and I should say in starting this discussion, I've penciled in some -- these other rankings that we've done as a workgroup before, so we don't have to discuss those now, but I've tried to get a handle on this site/program ranking, the category -- technical, procedural, otherwise -- the section, external or medical, internal. And lastly, after we hear a NIOSH response or NIOSH resolution, I guess we'll fill in that Board action number that was done in the first set of

20.

So 21.1 says reviewer identified errors in calculation of recorded photon doses.

MR. HINNEFELD: Yeah, it looked to me like there are two different records in this claimant's folder about getting their exposure record. There was one that gives a skin -- or a shallow and a deep number that appeared to be photon only because there was also a neutron column on there. And then there's a handwritten summarized page that only gives a deep and shallow. And if you look at the numbers, the neutron -- the neutron number has been added to the deep photon on the first sheet in order to get the deep number on this sheet. And so the years that correspond to the arithmetic error were the years when there was a neutron number other than zero. So it seems like the starting point -- what the dose reconstructor did was -- to put a starting point on this calculation was to take the difference between the shallow and deep photon, ignoring the neutron part, and used that as the starting point of the calculation. The difference is so small, though, I don't know

that we want to spend a lot of time fighting this out.

MS. BEHLING: No --

MR. HINNEFELD: I mean it's a trivial difference.

MS. BEHLING: -- in fact I think what happened in this case, there was an underestimation of the 30 to 250 keV dose and overestimation of the over 30, so they (unintelligible) out.

MR. HINNEFELD: Yeah, it kind of balanced out. It really makes no difference in the outcome of the case. I mean we'd have to fight through a lot of details here to come to resolution on it here, so I'd just as soon go on.

MS. BEHLING: Yeah. No, it's just one of the things that we look at and we saw that there was an error.

DR. BEHLING: Let me --

MR. GRIFFON: So --

DR. BEHLING: Mark, let me make a couple of comments. I think when -- when we look at the dose reconstruction audits, you can classify some of the findings in several categories. Some of -- some of those categories may not require any resolution. And what do I mean by

that? If -- if we see, for instance, that there was a mathematical error done by one dose reconstructor, it's a finding for that particular audit, but it has no implications for the program and for the process of dose reconstruction, and I don't think we need to invest a lot of time under those conditions. If, on the other hand, we find that there is recurrent error committed by --

MR. GRIFFON: Right.

DR. BEHLING: -- a dose reconstructor after dose reconstructor, and we find that root cause is an ambiguously-phrased procedure, then I think there is reason to request that changes be made in order to rectify that. And so I think -- let's be careful in identifying errors that are one of a kind because a dose reconstructor was -- probably had his mind on something else, as opposed to systemic errors that reflect ambiguous procedures or -- or insufficient training on the part of the dose reconstructor, et cetera. Those we can fix.

MR. GRIFFON: Yeah -- yeah, I agree with you, Hans, or -- or the other reason for looking for those patterns might be a quality control

effort --

DR. BEHLING: Yes.

MS. BEHLING: Exactly.

MR. GRIFFON: -- which -- which, again, in these maximizing cases is, you know, probably not as -- as relevant. But as we get into the best estimates, certainly --

DR. BEHLING: Yes. Yes.

MR. GRIFFON: Yeah. So for this, I think -- you know, we have SC&A and NIO-- I'm just writing this in the NIOSH resolution column, SC&A and NIOSH agree with minor technical errors; however it would have no effect on --

DR. BEHLING: Yes. And for that reason, we have that checklist that says what is the implication of the findings, and we you see a low finding that says yeah, technically it's incorrect, but does it really impact anything regarding the dose, let alone the POC. And if the answer's no, then it's just a technical issue that -- because we started off with the -- - with the -- on the premise that we have to demonstrate to the members of the Board that we understand the dose reconstruction process by tracking each and every number through all of

the manipulations that went into the dose reconstruction. And in the process we uncovered errors that oftentimes are so minimal and so subtle -- subtle that they require no resolution.

MR. GRIFFON: Right. Okay.

DR. LIPSZTEIN: May I ask where are you, because I'm completely lost.

MS. BEHLING: Joyce, we're onto a new matrix. This is the Task IV matrix.

DR. BEHLING: You may not have it, Joyce.

DR. LIPSZTEIN: I don't have it, so -- okay, so then I think -- do you need me or should I hang up, because I don't have it.

DR. MAURO: Well, Joyce, you know what you could do -- because I'm working from the actual report, the big report, the three-ring binder. It tracks very nicely to the matrix 'cause that's how he built it, and so I'm able to track it even though I don't actually have the matrix in front of me.

MS. BEHLING: I apologize, Joyce. I didn't know if you were going to participate in this portion, but you certainly -- you can do -- you know, do what John is suggesting here.

DR. LIPSZTEIN: Uh-huh, which -- which document is it?
DR. MAURO: You know the big white book, three-ring binder --
DR. LIPSZTEIN: Uh-huh.
DR. MAURO: -- it says (unintelligible) second set of cases, May 2005.
DR. LIPSZTEIN: Oh, okay.
MR. GRIFFON: Second -- second set of cases, yeah.
MS. MUNN: Cases 21 through 38.
DR. LIPSZTEIN: Okay, I'll try to look for it and I'll come back if I find it.
MS. MUNN: Mark --
DR. LIPSZTEIN: Okay?
MR. GRIFFON: Yeah.
DR. BEHLING: Okay.
MS. BEHLING: Okay, thanks, Joyce.
DR. LIPSZTEIN: 'Bye. Thank you.
MS. MUNN: Mark, I --
MR. GRIFFON: Yeah.
MS. MUNN: I know that we haven't done this in the past, but it has occurred to me that perhaps the most effective way for us to address these very detailed findings on the

case reviews would be to change our approach just a little bit and perhaps look at those -- only those cases that are going to have a large impact or a definable impact first, and then go back and see -- then go through the lower case ones. Perhaps that -- that may not be effective in the long run, but I'd certainly like to try that at some juncture. As Hans has pointed out, are findings that are not repeatable things or are findings about which we really cannot do anything. And if that's the case, then -- then our -- our resolution will need to end up being no action necessary. On the other hand, if there is an appreciable effect, potentially, from the error, then that's something that we may have an amount of discussion about.

MR. GRIFFON: I don't disagree with you, Wanda. I -- I've actually tried this in the past, though, and it ends up that we end up going back through them one by one. I think part of the problem is that we -- you know, the matrix is useful, but it's also written in very shorthand summary fashion. And if we skip some of these I think we might -- we might miss

something that we should have probably went through.

MS. MUNN: Oh, I wasn't suggesting that we skip them. I just --

MR. GRIFFON: Oh, okay.

MS. MUNN: -- suggest that we reprioritize our approach to them so that the ones that are of significance we can tell, that those be the ones we discuss first so that the others, which may respond only -- the result -- the resulting response may only be no action necessary, no action necessary --

MR. GRIFFON: Yeah, okay, I -- I just think -- I mean my -- my impression is that if we go through them one by one we might -- I think those ones are going to pop out that are easy to dispose of and we won't have a lengthy discussion on them.

MS. MUNN: Okay, you're the guy that --

MR. GRIFFON: I hope. I hope. I mean I -- 'cause I'm looking through -- I highlighted on -- on the computer and I have little tidbits highlighted sporadically here, and it's not obvious --

MS. MUNN: That's fine. You don't -- you don't

need to --

MR. GRIFFON: It's not obvious how to --

MS. MUNN: -- placate me, just go -- go with it.

MR. GRIFFON: -- prioritize, that's what I'm trying to say. Okay.

MS. BEHLING: Now I agree with you, Mark, because in some of these cases we might be able to say let's go through the case rankings and pick mediums or highs, but we will miss issues that I think --

MR. GRIFFON: Right.

MS. BEHLING: -- are important to discuss along the way.

MS. MUNN: Well, I think we need to discuss them all.

MS. BEHLING: Yeah.

MS. MUNN: I wasn't suggesting not discussing them.

MR. GRIFFON: Yeah, I'm just trying to --

DR. BEHLING: And -- and when you --

MR. GRIFFON: I'm try-- I think right now it'd be better just to go through and maybe --

MS. BEHLING: Be sen--

MR. GRIFFON: -- for the next -- for the next

version we'll try to prioritize ahead of time. That's not a bad idea, but --

MS. BEHLING: Yeah, in fact that's something I want to discuss as we go through these. But I -- I think we do need to go through these sequentially, and we'll be sensitive to the fact that there's some that we can just move along.

DR. BEHLING: In fact, you'll -- you'll see an awful lot of findings that are repetitious because the -- in fact, the first three sets were maximized -- mostly maximized, some were minimized dose reconstructions, and -- and you will find that there's a repetition of errors that -- that you see throughout these different sets. And so when we come across them you're going to probably realize that well, we've discussed that before so let's go on.

MR. GRIFFON: Yeah, okay. 21.2 actually -- I think this is one that can be fairly quickly disposed of. NIOSH agrees, but it -- again, this is an overestimating approach --

MS. BEHLING: Yes, that's fine. It's uncertainty, so we can move on.

MR. GRIFFON: And 21.3 --

MS. BEHLING: Same, it's an uncertainty issue and it is a high -- it's unnecessarily high.
MR. GRIFFON: Right. 21.4 -- and stop me, anybody, if we need a longer discussion on any of these.
MS. BEHLING: Okay. I'm not sure (unintelligible), can NIOSH explain this?
MR. HINNEFELD: Well, I can --
MR. GRIFFON: Yeah, this is a lengthy one.
MR. HINNEFELD: I think the -- the numbers aren't worth spending a lot of time on because the numbers are very small, no matter how you do it. When I went through the TBD tables I could reproduce essentially the 38 -- I actually got 37 millirem for the total dose over the (unintelligible) years because it breaks at various years, and I got one year at the highest -- he only had one pre-1970 X-ray when the dose would have been 25, and then the others -- the table calls for lower doses, but it doesn't really matter. And then I thought that the medical exposure was pretty much right on light, maybe a slight overestimate as opposed to the underestimate, but the values were so small I don't think it warrants much

time.

MS. BEHLING: Okay. Okay, I just --

MR. GRIFFON: I mean do you need to go back to this one, Kathy? That's -- you know --

MS. BEHLING: No, it just surprises me that we would have identified this as a finding if it was a one millirem difference. We just -- we wouldn't have done that, and so --

MR. GRIFFON: Right, I don't think so, so --

MS. BEHLING: -- and so that's why I'm questioning --

MR. HINNEFELD: No, it was -- your -- your estimate was 25 millirem a year for the entire employment period times the 1.3, and then what I said was well, the 25 millirem is only the pre-1970 value. The TBD gives lower values for later years for X-rays, so I essentially reproduced what -- what I thought the number should be and didn't quite get the 38, which is what the DR-ist (sic) had. I got to 37. So I think that's what the -- the issue was was that there's a certain cut year where the medical doses are lower.

MS. BEHLING: Okay.

MR. HINNEFELD: And then there is a discussion

in here about the -- the lumbar spine X-ray that the person got. The -- it looks like the -- the DR-ist just doubled one of the views, the higher exposure view. There's two views on the lumbar spine X-ray and it looks like what the DR-ist did was just double the higher exposure view rather than to put two separate lines in for the different -- for the different views.

MS. BEHLING: But I think what we wrote here in -- is saying that we thought there was 21 years of dose that may have been missing, which would have -- which would have resulted in about 700 millirem, or -- yeah, 700 millirem.

MR. HINNEFELD: What I'd like you to do is look back at the site profile for Rocky Flats and the X-ray doses that are cited for years because I think -- I think what you've done -- if you take 21 years of X-ray dose at 25 millirem, when in fact, based on the site profile -- the equipment changed in 1970, so only the 1969 X-ray would be 25 millirem, and the later X-rays would be lower doses.

MS. BEHLING: Yeah, we have down here that you used OTIB-6 for this, and that only one chest

X-ray was assigned rather than for -- one for every year of employment. I believe that's what we are saying.

DR. BEHLING: You have to go back to the actual audit itself to identify --

DR. MAURO: I have the report open in front of me. It's very helpful to -- it's written up here and Kathy, will you just -- I don't know if you have the report --

DR. BEHLING: Yeah, we do, John --

MS. BEHLING: Yes, we do.

DR. BEHLING: -- and the matrix is not very clear in identifying the issues.

MS. BEHLING: Right, it's too -- it's too abbreviated.

DR. BEHLING: It's too abridged.

MR. GRIFFON: Well --

MS. BEHLING: But I think that our point was that you only assigned chest X-ray dose for one year where --

DR. BEHLING: It was 21 years.

MS. BEHLING: -- there was 21-year employment and we -- I guess we came to the conclusion that he probably -- or this person probably had an annual chest X-ray. That's what I said, I

couldn't imagine we would have written something up for one millirem.

DR. BEHLING: No.

MR. GRIFFON: Right, right, so there's still a discrepancy here. I mean I think --

MS. BEHLING: Yes.

MR. GRIFFON: -- maybe -- I -- I think this can be done off-line, though. Right? That's --

MS. BEHLING: Yes.

DR. BEHLING: Yes.

MR. GRIFFON: You can go back and look at your numbers and maybe talk to Stu and --

MS. BEHLING: Okay, we'll look at that again.

MR. GRIFFON: -- try to figure this out or resolve this calculation discrepancy.

MS. MUNN: Might have depended on his job description. He might have only had --

MR. GIBSON: (Unintelligible) this is Mike. My phone died. I had to get another one and get back on line. Where are we at here?

MR. GRIFFON: We're in the second set of cases, Mike, on finding number 21.5.

MR. GIBSON: Okay.

MS. BEHLING: Yeah, matrix for cases 21 through 38.

MR. GRIFFON: Second pa-- third page into it, whatever, something like that -- 21.5 in the matrix.

MR. GIBSON: Okay, great. Thanks.

MR. HINNEFELD: Kathy, the medical X-ray exposures are lines 212 through 233 in the dose reconstruction.

MR. GRIFFON: All right. Thanks. Yeah, we'll -- let's see, so -- are we on 21.5? We can -- I mean you don't have to redo those calculations while we're on the line. I think it'd be better served to work our way through the matrix and you guys can work that out. Right?

MS. BEHLING: Okay, yeah, we'll look at that.

MR. GRIFFON: Okay.

MS. BEHLING: I see they're all zeroes below that, so maybe that's where it's changed.

MR. HINNEFELD: They round -- less than one millirem.

MS. BEHLING: Is that what the -- okay. I'll look at that.

MR. GRIFFON: And if you're in agreement, that's fine, we can get -- you know.

MS. BEHLING: I just -- I want to look at it

again.

MR. GRIFFON: All right. 21.5 --

MS. MUNN: Incorrectly calculated on-site ambient dose.

MS. BEHLING: Let's see --

DR. BEHLING: (Unintelligible)

MS. BEHLING: I don't know. We don't quite understand NIOSH's response. (Unintelligible)

MR. HINNEFELD: I copied some pages out of the site profile, hang on a second.

(Pause)

MS. BEHLING: And as you see in our write-up, we said that the discussion on the on-site ambient dose in the Technical Basis Document is very confusing, so maybe we misunderstood it.

MR. HINNEFELD: We agree it's very confusing. Hang on, I thought I copied the pages.

MR. GRIFFON: And we're looking at that profile, too. Right? So...

MS. BEHLING: This is what, Rocky?

MR. GRIFFON: Yeah.

MS. BEHLING: This is Rocky Flats? Yes. Yeah, we should make note of that in the Technical Basis Document review.

MR. GRIFFON: So is this another one that --

MS. BEHLING: Well, Stu right now is trying to get us some information. He's trying to dig out some of the pages.

MR. HINNEFELD: Our response refers to the pag- - to the tables in the site profile, and there's a text -- I thought I had it a while ago, I don't seem to be able to get my hands on it real quick.

MR. GRIFFON: I'll tell you one thing that jumped out at me, just to stall so Stu has some time, is the highest annual value in the table is for 1989. I don't know, that struck me as interesting.

MS. BEHLING: Yeah, it is interesting.

MS. MUNN: There was a lot going on there in '98 (sic).

MR. GRIFFON: Yeah, there was. There was.

MS. MUNN: Ask the Feds.

MS. BEHLING: I guess to keep things moving along, we could also do this off-line when Stu --

MR. GRIFFON: Yeah, okay.

MR. HINNEFELD: I apologize, I thought I had copied some pages.

MS. BEHLING: That's okay.

MR. GRIFFON: That's okay.
MS. BEHLING: Usually when on-site ambient is not significant doses here, but --
MR. GRIFFON: Right.
MS. BEHLING: -- this guidance was very confusing. We'll deal with that one separate.
MR. GRIFFON: Okay, let's move to 21.6 then.
MS. BEHLING: Okay, now here's where I want to pause for just a second because I believe that this -- this finding is one that we've talked about over and over again, and everybody's very well aware of this excessive claimant-favorable approach to things. And I think that there is -- based on the response from NIOSH on this -- no, no, right here. NIOSH's response is they agree, however it's a high dose and this is a case that's less than 50 percent. Here is where -- where I might pause to say I think that there's a difference in philosophy between what NIOSH is doing and what SC&A would maybe recommend that is being done with these, quote, claimant-favorable cases. And I think it's best to explain it in terms of our -- and I think the regulations state claimant favorability is in cases of unknowns. And so

if you don't know if the person was monitored and if you have to go back and calculate missed dose and you don't know whether he was -- received internal doses, you do want to calculate a hypothetical internal. However, you do know what the cancer is, and there's -- you haven't lost any efficiency by pulling the correct cancer model from your hypothetical internal dose and using 12 radionuclides as opposed to 28 radionuclides when (unintelligible) doesn't have a reactor, doesn't have all your fission products. So I don't know that I agree with NIOSH's response that we can just -- it's okay because this was less than 50 percent and it was excessively high. I feel, and you hear it in the public comment area, that --

MS. MUNN: If it's wrong, it's wrong.

MS. BEHLING: Yeah, and it's not necessarily scientifically sound to do this. So I believe this is an approach that has been adopted by NIOSH and it's a way of thinking today, and I'm not sure that we want the dose reconstructors to continue to think in this way.

MR. HINNEFELD: It was -- it was a way of

thinking up until a few months ago.

MS. BEHLING: Okay.

DR. BEHLING: I mean I think it would be very, very difficult to defend when a person says they modeled it, even though it was claimant favorable, for a cancer that -- I didn't have colon cancer and it -- and it lets somebody who's on the sidelines say well, boy, they're not even looking to see which cancer this guy had.

MR. HINNEFELD: I think -- well, this is actually the -- we selec-- (unintelligible) selected 28 radionuclides rather than 12 in this specific case.

MS. BEHLING: That's right.

MR. HINNEFELD: But this was an attitude up until a few months ago, and -- and it's not the attitude now because of the recurring issue of returns coming back from the Department of Labor with new information and now we're in the process of explaining why the dose reconstruction's so much lower. So I'd say the days of sort of being -- shall we say cavalier about overestimates in non-compensable cases is pretty much gone now.

MS. BEHLING: It was just based on NIOSH's response.

MR. HINNEFELD: I originally wrote that a few months ago.

MR. GRIFFON: So -- so Stu, what -- what -- what concrete changes have been made? You said it's -- there's a change in attitude now? Are there concrete procedural changes that have been made as a result of this or --

MR. HINNEFELD: I don't know that I'd say they're procedural changes, but I'd say it's a fact that we don't typically see just these artificial inflated dose reconstructions just for the sake of having a high dose. I think it's -- more attention is paid to choosing the right model now. Am I wrong? You guys read more than I do.

MS. BEHLING: Okay --

MR. ALLEN: Generally.

MR. HINNEFELD: Okay.

MS. BEHLING: Now the other thing -- and I know in this particular case I may have jumped the gun a little bit because, although I -- I guess I phrased this finding incorrectly, they used the hypothetical -- the 12 radionuclide

hypothetical intake model, and I guess they did probably select the right cancer here, I'm not sure. But in the cases where they do select the colon as the highest non-metabolic cancer, I believe that that's stated in TIB-2 that that's recommended. I haven't read through TIB-2 in a while, but I do think that that's recommended in one of the procedures. No? You're shaking your head.

MR. ALLEN: Not TIB-2, maybe a procedure, 'cause I remember when we first did that they calculated the dose for all 28 nuclides to the colon, and when we first started doing some claims by that and we started seeing the same dose on each one, saying this is not right.

MR. GRIFFON: Right.

MR. ALLEN: Then ORAU explained that they had one set of numbers calculated, that they were going to fire through as much as they could with that set of numbers, and we reluctantly agreed to it, essentially.

MS. BEHLING: Okay. I just would like -- you know, need to be sure that that's not stated anywhere in the procedures for the dose reconstructors to -- to use the col-- I thought

I read that --

MR. ALLEN: Yeah, I can't --

MS. BEHLING: -- somewhere.

MR. ALLEN: -- can't guarantee on the procedure, but the TIB --

DR. BEHLING: Well, I -- I think that we -- it may be in the procedure that it says --

MS. BEHLING: Yes.

DR. BEHLING: -- the colon ends up being the highest non-metabolic organ, so if you have prostate cancer we'll go with the colon. But it just looks awfully stupid for us to use a cancer -- a site that doesn't even apply to the individual claim, even though it gives -- it gives you a higher dose.

MS. BEHLING: And I just want to be sure the dose reconstructors aren't being -- it's not being suggested to them that they --

MR. GRIFFON: Right.

MR. ALLEN: I think the NIOSH response there applies to the individual claim. We wouldn't go back and rework that to lower the dose since it was already a denial --

MR. GRIFFON: Right.

MR. ALLEN: -- but as far as the programmatic

issue goes, you -- we're trying to get better.

DR. WADE: We all remember the lady who stood up at the last Board meeting in public comment and talked about the pain of getting a letter where the wrong cancer was identified. And for the record, that wasn't a NIOSH letter she received, but I think we all need to take care.

MR. GRIFFON: Right, right. Okay, 22.1 I think we're on.

DR. BEHLING: Yeah, this is one that has cropped up over and over again. I think we have beaten up Stu on this one on more than one occasion regarding TIB-8 and 10 that are -- and here's a classic case of a procedure that consistently, among every one of the dose reconstructors, has been misinterpreted and -- and fortunately -- or unfortunately, I guess fortunately for the claimant, it results in doses that are usually higher than -- than what the true interpretation would yield and -- and I think Stu's fully aware of it. I don't know if at this point TIB-8 and 10 have been revised to clarify --

MR. HINNEFELD: Coming soon, yeah. We hope to -- we expect to see them this month, but we

have not seen them yet.

DR. BEHLING: And -- and in short, if you recall, Mark, the issue is one of using LOD times N multiply that yet by two, then divide by two and ultimately end up with a GSD, and so an error one cancels error two, left with error three, which is GSD, which doesn't belong when you have a 95th percentile value. It's three errors, two cancel out, one error's left which is the GSD for a maximized dose. That's -- that's a consistent error that has been introduced over and over again.

MR. GRIFFON: And this was over and over in the first 20, yeah, we saw several times.

MS. BEHLING: Yes.

MR. GRIFFON: Yeah.

DR. BEHLING: And we're still seeing it.

MS. BEHLING: And actually what I've decided to do, unless someone wants to make a recommendation different from this, for this fourth set of cases, because I didn't see a revision to TIB-8 and 10 yet, I felt that it was necessary for us to include it again as a finding. And when we finally see a revision that we're satisfied with, I think at that

point we will make something like an observation and not include it on this -- this matrix -- this matrix list anymore and -- unless it has some significant impact on the case.

MR. GRIFFON: On the case, right, I agree.

MS. MUNN: But for the time being, that's right, this is what we're looking for. That's exactly it.

DR. BEHLING: But I think once there is a resolution such as a revision to a TIB that clarifies the issue, even though we may be auditing a case that was done two years ago, we will cease to make it a finding because the resolution has already occurred.

MS. MUNN: Yeah.

MS. BEHLING: Exactly.

MR. GRIFFON: Okay, 22.2?

MS. BEHLING: Gives you a motivation to make those changes in the procedure.

MS. MUNN: Yes, it does.

DR. BEHLING: We're at 22.2, Mark?

MR. GRIFFON: Yeah.

MR. HINNEFELD: This is more -- this is another of the same --

DR. BEHLING: Yeah --
MS. BEHLING: Yeah, this is the same.
DR. BEHLING: -- this is a case where --
MR. HINNEFELD: -- why use 12 when it says four.
DR. BEHLING: -- the records indicate the person was monitored quarterly, and there's firm evidence to that, and so, again, there was an excessive assignment of missed dose assuming a 12-cycle per year exchange and when the records clearly say there's only -- he was only monitored four times, we're assigning, you know, three times as many -- or an excess of three times more than what he should. And again, I would say stick with the facts when you have it. If you're not sure, give the benefit of the doubt, but here we have the facts.
MS. MUNN: Is this the continuing problem?
MR. GRIFFON: It's the same as the 21.6, pretty much as a follow-up.
MS. BEHLING: Well -- just one second, Mark. Say what?
MR. GRIFFON: I'm saying the response or the resolution to that is similar to 21.6, that --

you know, there's agreement, but no change for that case is needed, but --

MS. BEHLING: Yes.

MR. GRIFFON: -- programmatically --

DR. BEHLING: Well, that -- that may be again a one-time deal. I'm not saying that every dose reconstructor opts to give excess number of cycles when in fact the data suggests otherwise. Again, this could -- this is perhaps a flaw that is linked to one dose reconstructor and as a result there may not be a resolution to that other than to perhaps maybe issue a memo from NIOSH that says please don't engage in overly-excessive assignment of doses when there's no need for it --

MR. GRIFFON: Well, and I think that --

DR. BEHLING: -- or the data suggests otherwise.

MS. BEHLING: Exactly.

MR. GRIFFON: I think that's the programmatic response that Stu just alluded to is that they're not going to -- as a policy matter, they're sort of -- going to kind of shy away from that --

MS. BEHLING: Yes.

MR. HINNEFELD: Yes.
MR. GRIFFON: -- both internal and external, I would assume, you know.
MR. HINNEFELD: Send them a directive at least -- average at least one a day, do this, honest to goodness.
DR. BEHLING: Does it come return mail?
MR. HINNEFELD: (Unintelligible) no, I send them e-mail so they can't -- can't come back address unknown.
MS. BEHLING: This is -- goes back to that philosophy issue.
MS. MUNN: Well, yeah, and I continue to be very concerned that -- that the Board perhaps unrealistically over-emphasized that -- the claimant-favorability aspect of every decision that's being made -- and that's not a smart thing to do and we -- if -- if we, as -- if the Board needs to take some action in this regard, please tell us that it would be wise for us to be more specific with respect to our claimant favorable comments that started this whole business.
DR. WADE: I don't -- I don't --
MR. GRIFFON: Well, I don't -- I don't think it

started the whole business --

DR. WADE: No, I don't think so, either.

MR. GRIFFON: -- Wanda. I'd take exception to that, 'cause I think the efficiency mode started this -- this business. I --

MS. MUNN: Well, yeah, but the effi--

MR. GRIFFON: -- I think you give us too credit -- too much credit. I'm not sure that our com-- our recommendations are carrying that much weight.

MS. MUNN: But the efficiency mode more -- doesn't just duplicate, it more than -- more than amplifies our original position about being claimant-friendly. And that's where --

DR. WADE: I think this was really a pressure to -- to -- to move things through the system and a little bit of sloppiness developed and it was tolerated because it really didn't make a difference. But I think we're realizing that when you live in a fishbowl like this, those things can matter --

MS. MUNN: They do matter.

DR. WADE: -- so it's a matter of just getting it right.

MS. MUNN: Yeah.

MR. GRIFFON: Okay, 22.3?
DR. BEHLING: Again you have to look at the actual report. I think TIB-8 was used for that and -- let me see here --
MS. BEHLING: TIB-8 spe--
DR. BEHLING: -- yeah, and TIB-8 clearly states this is not to be used for skin doses or those doses that may require a shallow dose reconstruction. That includes the testes and the breast and so in -- in essence the procedure was incorrect for -- for deriving a skin dose. They should have really used Proc. 6 and one of those appendices that are defined under Proc. 6 for deriving skin dose. I do think --
MR. GRIFFON: (Unintelligible) do you agree with that?
MR. HINNEFELD: Yeah, I don't -- I don't dispute that.
MR. GRIFFON: I -- I mean I think this a -- I -- and -- and Hans, do you agree with the NIOSH respon-- inasmuch as it doesn't affect -- that -- that still the approach --
DR. BEHLING: Well, again, you know, we --
MR. GRIFFON: -- sufficiently maximized the

dose for this case?

DR. BEHLING: Yeah, we have been dealing principally with maximized doses for the first three sets, and even in the fourth set. So I suppose in the end if the ultimate excuse is that well, is this a maximized and it's non-compensable, so all these errors really don't mean anything, there's -- there's an element of truth in that. Clearly we're not going to turn anything over on the basis of these things, but it's a matter of technical accuracy and, again, the issue of the optics. Which procedure did you use that you should have used but failed to use in arriving at these doses, whether or not they contribute to a significant difference that would affect the compensability of the claim. Well, that's really a second level of concern and -- and we would -- and during our audit we were not looking at that other than to identify the findings under the checklist as having a low. And as you will see in just about every one of these the checklist identifies this error as a low impact. So nevertheless, it's a technical issue that we want to bring to everyone's attention. We're

not saying it's going to change anything.
MR. GRIFFON: Oh, yeah, no, I'm not -- I'm not taking away the finding. I'm just saying for this particular case the dose would have not been a lot different or a lot greater or would it have been or did you assess that?
DR. BEHLING: Well, the skin dose I guess under Proc. 6 would have been higher.
MR. GRIFFON: High-- high-- higher enough to make a significant difference or -- in your opinion, or --
DR. BEHLING: Well, again, that's subjective when you say significant. Significant, would it have changed the compensability? No. Would it be a significant fractional increase in dose? Probably. But again, it's in context with all the other doses that are assigned under maximized, chances are it's not all that much of a dose.
MS. BEHLING: It's not that significant.
DR. BEHLING: In fact, on that issue -- and I talked to Dave Allen -- there's a concern on my part that people still haven't recognized that when you deal with a skin dose and especially a skin cancer, forget about the HP-10 dose. Look

at the shallow dose. That's your dose of reference, and don't worry about whether it's beta -- 200 -- greater than 250 or 30 to 250, none of these matter. It's your skin dose, and that should be the dose that should be entered as your dose for determining whether or not the -- the cancer is -- is compensable, and -- and too many of the people are still not looking at the footnote that is in Appendix B of Implementation Guide 1 that clearly says if you're talking about a skin cancer, forget about the HP-10 dose because if the HP-10 dose is cited, also -- there is also the likelihood that the shallow dose is also cited, and use that and forget everything else.

MR. GRIFFON: Right.

MS. MUNN: Can we put the footnote in bold? Move it up from footnote status, put it somewhere else?

MR. GRIFFON: Okay, 22-- Hans, just to let you know, part of the reason I asked you those questions was I -- I think I'd define this more as a procedural -- I'm categorizing here, too, in my little ma-- in the matrix, and I think I see that more as a procedural finding in this

case.

DR. BEHLING: Yeah, it is.

MR. GRIFFON: And so that's why I'm -- I'm going down this -- aiming these questions for you. I totally agree with your assessment, but I -- anyway, 22.4?

MS. BEHLING: Here again they just used -- NIOSH used I guess 40 millirem for LOD and we're not sure -- it was not referenced, and actually I believe that Attachment F of Proc. 6 was not even issued at this time, which would have recommended 50 millirem, so it's -- it's a minor difference, but we didn't know where they came up with that LOD value.

DR. BEHLING: It's a generic value that's commonly used in the early years during film dosimetry, but I think under Proc. 6 or 17 I think for the beta component 50 is a common used value for LOD for shallow or beta component. So again it's a marginal difference.

MR. GRIFFON: Okay, but -- and -- and this -- when it says see response for finding 22.3-D.1, that should have been D.1.2? Is that correct? I don't see any D.1.1.

DR. BEHLING: No, I don't either.
MS. BEHLING: Actually I -- I marked that -- I'm not sure if I incorrectly identified those finding numbers in the matrix, because in our report finding 22.3 is D.1.1 and 22.4 is D.2.1.
MR. GRIFFON: Okay, so we -- I can work with you, Kathy --
MS. BEHLING: Yes.
MR. GRIFFON: -- on these edit --
MS. BEHLING: Yes.
MR. GRIFFON: -- things, but we should just make that consistent.
MS. BEHLING: Yes, I'm sorry.
MR. GRIFFON: All right.
MS. MUNN: That -- that same nomenclature appears in the preceding finding.
MR. GRIFFON: Right.
MS. BEHLING: Yeah, I --
MR. GRIFFON: Right. 22.5?
MS. BEHLING: Okay, this (unintelligible) internal.
DR. BEHLING: We've probably gone through this one again already, the selection of the cancer that yields a dose higher than necessary.
MS. BEHLING: Uh-huh.

MR. GRIFFON: In this case you have case ranking unresolved, though. Why is that? That's different than your other ones, Hans.
DR. BEHLING: Let's see here, where are we? (Unintelligible)
MS. BEHLING: I don't know.
MS. MUNN: You gave it a UR.
MS. BEHLING: Oh, unresolved?
DR. BEHLING: (Unintelligible)
MR. GRIFFON: That stuck out to me as something --
MS. BEHLING: Yes, (unintelligible) --
MR. GRIFFON: -- was going on --
MS. BEHLING: -- was that.
MR. GRIFFON: -- differently there.
MS. BEHLING: I don't know why we did that. That's not correct.
MR. GRIFFON: We can check that out, but -- but otherwise the response is similar to the previous one. Right?
MS. BEHLING: Yes. Uh-huh, yes.
MR. GRIFFON: All right. And the same -- is the same true with 22.6?
MS. BEHLING: Yes. There again -- let me look -- there again they selected colon as the

cancer as opposed to the actual cancer, which is -- breast?

DR. BEHLING: (Unintelligible)

MS. BEHLING: Yeah, as opposed to the breast, and here again if you would have used the breast for running the hypothetical internal, your dose would have been significantly lower.

MR. GRIFFON: Is that -- that finding -- if you look up above, 21.6 versus -- versus what you have here, 22.6 --

MS. BEHLING: Uh-huh.

MR. GRIFFON: -- they're -- they're written differently. Are they the same fin-- type of finding?

MS. BEHLING: Yes. When we were on 21.6 --

MR. GRIFFON: 'Cause cancer type for modeling --

DR. BEHLING: It -- no (unintelligible) --

MS. BEHLING: No, it --

MR. GRIFFON: -- says something differently to me --

DR. BEHLING: Yes, it --

MR. GRIFFON: -- in summary form than -- that --

MS. BEHLING: Yes.

DR. BEHLING: Mark, it should have said reviewer disagrees with NIOSH's selection of the hypothetical dose model for modeling the hypothetical intake. In other words, the difference between the 12 and 28.

MS. BEHLING: You need to make that change to the matrix.

MR. GRIFFON: Okay, I wi-- yeah.

MS. BEHLING: Okay.

MR. GRIFFON: I'm just trying to get my notes up -- up to speed here. Okay, what time is it? 4:10, we've got a little while more. 22.7.

MS. BEHLING: Okay.

MS. MUNN: We're all in the same boat.

MS. BEHLING: We were talking about this earlier, and this speaks to the CATI -- there's an unresolved discrepancy between the CATI report and DOE records. Apparently in this case I believe the claimant indicated that they participated in the bioassay monitoring program, but the records didn't show that and so we identified this as a discrepancy.

DR. BEHLING: Unresolved.

MS. BEHLING: Unresolved.

MR. GRIFFON: And -- and NIOSH's response refer

to bullets one, two and three, and I don't have the full report opened.

MR. HINNEFELD: Bullet one was about the claimant claimed that he had participated in in vivo program, but we didn't get any DOE records. Bullet three was the claimant stated that worker had whole body counts annually through '92, but we only got records for four of them conducted from 1980 to '84. And then the second bullet was the claimant also stated that a medical X-ray was taken in all but the last year of employment. However, the DOE records provide no evidence of any chest X-ray examinations.

The second bullet, we -- the dose reconstruction assigns an annual X-ray anyway, so despite the fact the record didn't show -- the DOE record didn't show any medical X-rays, that -- we didn't feel like that mattered. We assigned an annual X-ray. For the first and third bullets, this has to do with the bioassay record of the individual, and we feel that the hypothetical intake is higher than this person would have received. There's more information available on this specific claimant in terms

of, you know, work and when they worked and the type of job they did that would lead us to believe that they truly were unexposed or moderately exposed and that the hypothetical intake is the appropriate one to use. And so the absence of that record we didn't think was -- prevented the dose reconstruction from going forward.

MR. GRIFFON: I guess -- I guess the follow-up from this morning would be was this adequately communicated in the DR report. And -- and I mean I know you're advising that now, but you know, I guess that would be, you know, one question I would have is if it was clearly explained to the claimant that this is what we did and even though you may have participated, we believe this would be bounding, you know.

MR. HINNEFELD: I don't know if it was said. I would be a little surprised if it was that specific.

MR. GRIFFON: Probably not, another early on. Right.

MR. HINNEFELD: At the time it was done, I would be really surprised.

MR. GRIFFON: So at this point I don't think

this is any case-specific ramification, but I would I guess in a -- one resolution I see from the programmatic standpoint is that NIOSH, you know, is modifying the DR reports and is undertaking modifications on the CATI procedures. Right? I don't know if they're specifically addressing this comment, but...

MS. BEHLING: Stu, (unintelligible).

MR. HINNEFELD: Oh, you want me to say something? All right, let me say that the CATI -- the CATI procedure modification would not specifically address this comment. I would think the dose reconstruction modification, the new model dose reconstruction would address this to some fashion, would at least put in front of the claimant at closeout interview time this is the record we had. And whether or not the interviewer will be prepared to say "and it differs from what you said in the CATI", I don't know if that -- I don't know how far that can go. It might -- that might be possible. I don't know. So certainly we -- we intend to have in the dose reconstruction this is the exposure record we had and with the -- with the expectation that the claimant would

say that's not right, I was monitored more than that, or something like that.

MR. GRIFFON: Right.

MR. HINNEFELD: Also the CATI sometimes is a little difficult to interpret in terms of the information that's written on it. I mean it may say in vivo annually, and the claimant may not recognize that -- he -- you know, that may not -- he may not have meant that to mean annually for my entire employment. It may have been annually for the times when I was monitored, or annually for a while, things like that. I personally don't remember my bioassay record from Fernald. I cannot tell you what years I was bioassayed monthly, what years I was bioassayed quarterly and what years I was in vivo'd and what years I was not in vivo'd.

MS. MUNN: Huh-uh.

MR. GRIFFON: Right, 'cause -- and it varied over time --

MR. HINNEFELD: Sure.

MR. GRIFFON: -- and what jobs for people, sure, sure.

MS. MUNN: Nobody can remember that.

MR. GRIFFON: Okay, so I'm -- I'm grasping for

a response on this, but --

DR. BEHLING: Well, from --

MR. GRIFFON: -- I think one thing is that the DR report -- the boilerplate language is being -- changes are being considered and are underway by NIOSH to improve the communication of how, you know, these discrepancies are dealt with.

MS. BEHLING: Yes.

MR. GRIFFON: And I think -- I guess that's about it. I don't know -- is it -- it seems to be the consensus that this would not have impacted this case. Again, I -- you know, most of these cases that's true for, but I figure I should ask.

DR. BEHLING: No, it's clear that the assigned dose of 12.4 rem based on the hypothetical intake and using the colon as the surrogate for the breast was obviously going to be a claimant-favorable assignment of dose. It's just still a discrepancy here. SC&A does not question that the doses that he would have -- that she would have received had a more detailed and complete internal bioassay dataset been supplied would have exceeded anything she

would have gotten. I think it's clear that which would -- doses were assigned are bounding values.

MS. BEHLING: In fact, I --

MR. GRIFFON: For this -- for this case was the -- the job title information consistent with someone who should not have been monitored that often or -- or do you recall or -- I -- I -- again, I don't have the specifics in front of me.

MS. BEHLING: Let's see --

MR. GRIFFON: The job title or --

DR. BEHLING: She was a machine cleaner, that's what it says here.

MR. GRIFFON: Oh, okay.

MS. BEHLING: Oh, okay, yeah.

DR. BEHLING: Yeah, and I guess those people were subjected to a certain amount of potential contamination during the process of cleaning machinery.

MS. MUNN: Well, it depends on what machinery they were cleaning.

MR. GRIFFON: Yeah, it depends on the machinery, but machine cleaners in certain areas would have been pretty --

MS. MUNN: Yeah.
MR. GRIFFON: -- potentially exposed, yeah.
MS. BEHLING: Yeah, but I think that we go on to elaborate in finding 22.8 the fact that, although there is this inconsistency, we do recognize that NIOSH did assign the 28 radionuclides and actually we state that that may have been the reason that they selected to use the 28 radionuclides and use the colon as the surrogate organ for the breast and -- in order to potentially account for any records that were missing. We go on to elaborate on that in the next finding.
MR. GRIFFON: And -- and -- I mean the other reason I'm pausing on this one is 'cause on both of these, 22.7 and 8, you have a case ranking unresolved, so again I'm won-- you know, is there...
MS. BEHLING: I guess at this point we -- based on looking at this case a little closer, we could make those low just because the hypothetical internal is used for the (unintelligible) --
DR. BEHLING: Well, certainly it encompass anything that --

MS. BEHLING: Yes.
DR. BEHLING: -- might have been missed.
MS. BEHLING: Yes.
DR. BEHLING: If there -- if it turns out to be a case of missing records.
MS. BEHLING: Yeah. The reason it was categorized initially as under review is in order to potentially --
MR. GRIFFON: Oh, under review, not unresolved, I'm sorry.
MS. BEHLING: Yeah, under review.
MR. GRIFFON: Okay.
MS. BEHLING: Is in order to encourage NIOSH to look to see if they could find any bioassay data.
DR. BEHLING: I mean to -- Mark, to answer a question earlier you had, you know, I'm looking at -- again at the summary table up front in our dose audit, and this person had a total of 26 millirem of assigned -- of recorded photon dose, and that's usually an indication of a low exposure environment, and so she may have been a machine cleaner, chances are these kinds of exposures are -- are almost background or within the error band of a TLD or film badge.

So again, my gut feeling is that whatever she was assigned is more than going to compensate any missed exposure that involved missing records.

MR. GRIFFON: Yeah, that -- that certainly reinforces the determination, sure.

DR. WADE: Well, I think that the strength and the importance of this finding generically is that -- is the discrepancy between the CATI report and the DOE records. The question is was that discrepancy recognized and dealt with, and I think you're saying yes in this case, but it could be in another finding it wasn't.

MS. BEHLING: It wasn't.

DR. BEHLING: I think it would be helpful if -- just if there was a recognition in the dose reconstruction report that emphatically states yes, it's possible that we're missing records, but look, we're giving you 12.3 rem of internal exposure using a model that is more than likely to overestimate anything by an order of magnitude, and having stated that, you sort of walk away from this missing data -- potentially missing data, without feeling that you're potentially hurting the claimant in -- in not

considering it.

MR. GRIFFON: Right, right.

MS. MUNN: As long as they understand that any shortcoming that they perceive their employers as having foisted upon them was taken into consideration and more than adequately compensated for.

DR. WADE: But what we don't know at this point, Stu, I guess is whether or not the revised dose reconstruction report would identify the discrepancies and speak to how the discrepancies were dealt with.

MR. GRIFFON: Yeah, that's what I put as the -- you know, ongoing action that NIOSH is modifying the DR report boilerplate language, you know, and we've captured that in the procedures review, too, so we'll -- we're certainly going to be looking at that.

DR. WADE: Certainly that would be a good thing. Whether or not the investment in time will be made to do that is something that we have to determine.

MR. GRIFFON: Right.

MS. MUNN: Uh-huh.

MR. GRIFFON: Right. All right. Was that the

time clock? All right --
MR. GIBSON: (Unintelligible) phone going bad.
MR. GRIFFON: What? Yeah, I know, I'm on my second phone, too, Mike. 23.1.
MS. BEHLING: Okay, in this case -- this is something that we've discussed with NIOSH before -- this was a prostate cancer and, let's see, OCAS Implementation Guide 1 indicates that the testes should be used as the surrogate organ and TIB-5 states the bladder. And I think TIB-5 is correct and there needs to be a change made to the Implementation Guide.
MR. HINNEFELD: Yeah, we've done that.
MS. BEHLING: You've done that.
MR. HINNEFELD: Yeah.
MS. BEHLING: Okay.
MR. GRIFFON: So IG -- IG has been modified.
MR. HINNEFELD: Yeah, there's a page change from like October or (unintelligible).
MS. BEHLING: Okay, great.
MR. GRIFFON: NIOSH agrees, IG has been modified. Okay.
MS. MUNN: I would submit, however, that this is one of those things where the technical reality may not be -- is -- is not likely to be

the same way the patient -- the client sees it. That -- that is -- the use of that surrogate organ would, in the patient's mind, probably more likely be testes than bladder and --

MS. BEHLING: Sure.

MS. MUNN: -- it's one of those things that perhaps requires some additional explanation.

DR. BEHLING: Well, that the difference being is the DCF which accommodates an attenuation component --

MS. MUNN: Yeah.

DR. BEHLING: -- and of course the bladder is more proximal to the prostate than for -- for external radiation --

MS. MUNN: That's not what they're going to think.

DR. BEHLING: I know.

MR. GRIFFON: Yeah, I...

MS. BEHLING: Okay.

MR. GRIFFON: Good point, though. All right, 23.2.

MS. BEHLING: Again this is an issue that we've discussed many times. It's -- they did not assign any uncertainty associated with the recorded dose, and it's because the

Implementation Guide has such complex procedure and equations for calculating what the uncertainty should be surrounding that recorded dose. Now this is one of those cases when there is a best estimate used or the workbook is used and they do Monte Carlo techniques, this is taken into consideration. But I think here again the Implementation Guide just needs to be changed.

DR. BEHLING: Well, I think the -- the current workbooks that have been developed make -- make an attempt to introduce that calculation that's identified in -- in the Implementation Guide and -- and does it for you. You can't do it manually. It's impossible.

MR. GRIFFON: So this was a pre-workbook phase --

DR. BEHLING: Yes.

MR. GRIFFON: -- case?

DR. BEHLING: Yes.

MR. GRIFFON: Okay.

DR. BEHLING: And people have either circumvented the need for uncertainty calculation by doing one of two things. They multiply everything by two, which gives you the

95th percentile value which is allowable under TIB-8 and 10, or they -- and then enter it as a constant, or they simply ignore it, which is now missing an uncertainty value. So we cite it, even though I'm very sympathetic in saying if I had to do it, I wouldn't know how. And so I have to say the workbook has taken care of that, but that has only been recently introduced.

MS. BEHLING: However --

MR. GRIFFON: Well, can I ask NIOSH that? Has the -- have the workbooks taken care of this issue? I mean are --

MS. BEHLING: No, and maybe I can answer that with -- just quickly. I believe actually the workbook takes care of it, and this is what I was trying to say, when they're using -- when they're doing a best estimate because that's when they run Crystal Ball and --

MR. GRIFFON: Oh, right.

MS. BEHLING: -- that's when all of the uncertainty, so -- so this is not resolved on most cases. I feel that the Implementation Guide should be changed to either put in something that's a reasonable --

DR. BEHLING: Thirty percent.
MS. BEHLING: -- 30 percent, exactly, that's what I was going to suggest -- uncertainty be put in with these recorded doses.
MR. HINNEFELD: Well, in our view --
MR. GRIFFON: For cases that aren't best estimate? Is that what --
MS. BEHLING: Yes.
MR. HINNEFELD: Yeah. In our view, a -- a measured -- measured dosimeter dose is normally distributed, and so the way that -- there -- there are a few acceptable ways of getting around that, we think. One is that if you're doing a -- an underestimating approach, for instance, so you -- you don't include all of it, for instance, you shave it down, you submit it as a constant 'cause it's at least that high. There is a way to get around it by -- if you're -- if the target organ has a dose conversion factor that is completely less than one, like below -- usually about .8 or so, or .9, the entire breadth of the triangular distribution is below that number, you can enter one as a DCF which overestimates that, and then enter your -- read a dose number as a

constant. We've been doing that for a while. We're verifying right now that that's appropriate, that that is in fact more favorable than a 30 percent distribution -- (unintelligible) normal distribution -- 30 percent uncertainty (unintelligible) normal distribution. We are doing that verification now. So so far it's looking pretty good, 30 percent -- 30 percent distribution normally distributed times the triangular DCF so far is -- is consistently less than using the measured value as a constant times one for DCF and reporting that value as a -- as a constant. So we're in -- we're in the middle of verifying --

DR. BEHLING: And -- but if that is adopted, I guess I would recommend you proceduralize that option so it's clear to -- to the dose reconstructor if you're going to use (unintelligible) as a DCF for those organs where the DCF is well below some value, then that accounts for uncertainty, so skip it.

MR. HINNEFELD: It is certainly -- it is certainly our position that you cannot just ignore the uncertainty 'cause it's hard. You know, there should be a way to do it, like --

like you said, 30 percent and -- on the measured dose. A measured value is normally distributed.

MR. GRIFFON: Okay. So can -- can I say, Stu, this is -- you're -- you're doing -- you're in the throes of a final evaluation for this or...

MR. HINNEFELD: Well, on this particular one, the dose conversion factor isn't entirely below one, I don't think, so that shorthand wouldn't be appropriate for this case.

DR. BEHLING: No, for skin, for instance, it wouldn't be appropriate.

MR. GRIFFON: Right.

MR. HINNEFELD: Right.

MR. GRIFFON: Right, for this case, but then for the -- for the broader issue of this general finding --

MR. HINNEFELD: Yeah.

MR. GRIFFON: -- you're -- are you going to revise --

MR. HINNEFELD: I think we -- we promised that. I mean that's been promised -- that's part of our response in the first 20 DR reviews.

MR. GRIFFON: And -- and to revise what? In -- in the -- in the --

MR. HINNEFELD: Well, the first thing --
MR. GRIFFON: -- IG or where -- where is the procedural revision going to take place?
MR. HINNEFELD: I'll have to get with ORAU and find out from them where it belongs because they're the ones who worked on the procedures more than us.
MR. GRIFFON: And 23.3?
MS. MUNN: Before we do anything else on 23.3, how about turning the page up to page six and making sure that all names are removed from this.
MR. GRIFFON: Yeah, I was going to -- I saw that, too.
MS. MUNN: Please, mark out the name.
MR. GRIFFON: Yeah, a name got in there.
DR. BEHLING: I'm very cautious about ever using --
MR. HINNEFELD: That was ours. That was ours.
MS. BEHLING: That was NIOSH's. In this particular finding we --
MR. GRIFFON: We're on 22. -- we're at 23.3.
MS. BEHLING: 23.3.
MR. GRIFFON: Yes.
MS. BEHLING: Yeah, looking at the records and

looking at the CATI report, we came to the conclusion that possibly this individual should have been assigned missed neutron dose. I believe the records actually had zeroes under neutron dose for '61 through '90, and then there were blanks from -- no, no, I guess there were zeroes between '61 through '74 and then --

DR. BEHLING: After 1974 they were recorded as blanks.

MS. BEHLING: -- after '74 there were blanks, and so -- and also based on the fact that in the CATI report the individual indicated that he may have been exposed to californium and uranium, and so based on that information we just felt that possibly missed neutron dose should have been assessed.

MS. MUNN: He said he may have been, did not -- was not clear?

MS. BEHLING: What happens on the CATI report, there's a list of radionuclides and --

MS. MUNN: Yeah, I remember that.

MS. BEHLING: -- they're asked to checkmark those that they have been exposed to or they (unintelligible) --

MS. MUNN: But there wasn't any verbal

expansion on that?

MS. BEHLING: No, it's just check marked.

MS. MUNN: Okay.

DR. BEHLING: But also his work station loc-- location was building 92-12 and I think if I looked at the TBD that might suggest potential exposures to neutrons.

MS. BEHLING: Stu's digging for papers again.

MR. HINNEFELD: Yeah, I'm digging -- I thought I'd brought something -- I'm digging. I thought I brought something on this, but maybe not.

MS. MUNN: These kind of judgment calls are the kind that I have the most difficulty with, and I guess I've always had difficulty with assigning dose to people who are monitored and show zero exposure. It's one thing if you're not monitored and there's reason to believe you might have been exposed. But if you're monitored and you're showing zero exposure, then how much -- how can we just dismiss that as being unacceptable, inaccurate --

MS. BEHLING: We don't write the procedures on --

MS. MUNN: I know, I know.

MS. BEHLING: -- how to calculate missed dose.

MR. GRIFFON: (Unintelligible)

DR. BEHLING: Wanda, what I always do is I look at the report. If I see out of a -- let's say five years' worth or ten years' worth of monitoring a handful of positive ones, I say okay, now he was -- the exposure must have been very nominal where a few of them went over the point where there are recorded dose but the rest are zeroes. Now that gives me reason to believe that I'm not near zero, but I'm somewhere between zero and recordable, and that's evidenced by a few that went over the top that actually became recorded dose, so I usually try to look at that in saying where am I. If a secretary was monitored and she has ten years' worth of zeroes, you're closer to zero down here, there's no question about that. But if you have someone who was monitored for a period of time and even a handful went above that LOD level and reported as positive, then you can be sure that the missing data or the missed dose data is somewhere between zero and LOD.

MS. BEHLING: And I think the other thing that

we do, and you'll see it in this particular case, we try to look at supporting data such as, in this case, first of all the CATI report indicated the uranium and the californium. We also went back and verified what buildings he worked at -- in and checked the TBD to determine could he have been exposed to neutrons in this building, 92-12. So we look at a number of issues before we make a decision as to whether we believe that there -- there should have been missed dose -- neutron dose assigned, not just zeroes on the -- the DOE records.

MR. HINNEFELD: Yeah, Y-12 hung a badge that included a neutron component on everybody. I mean when they badged them, the neutron component went along, regardless of their potential for exposure to neutrons. It's just part of (unintelligible).

DR. BEHLING: Yeah, in fact that's a question I have. When the TLND was introduced at Savannah River or at Hanford, was a person who was not even remotely likely to be exposed to neutron, was that badge analyzed? Was the algorithm followed to see if there was a neutron

component even though, based on location, the likelihood of a neutron exposure was zilch?

MR. HINNEFELD: Well, I guess sitting here today I don't know. I really don't (unintelligible).

DR. BEHLING: Because I never know how to interpret -- if I see a blank, I feel more comfortable the person wasn't exposed. If I see a zero, there must have been a reason why that badge was processed.

MS. BEHLING: Uh-huh.

MR. HINNEFELD: So -- and I don't know, sitting here. We could provide, you know, additional research with the dose reconstructors and people who know more about Y-12 and Y-12 dose reconstructions than I do and -- and come up with maybe a better explanation, but from our view, that -- you know, this was someone who -- well, a machinist at Y-12, you know, other than californium, you know, is there really going to be that much neutron around the uranium -- chunk of uranium, you know. You're not going to find it around uranium unless he happened to be around the californium source, which must have been a calibration source of some sort.

Really where's the neutron exposure, and as a machinist, would he have spent that much time around the californium source. So there's a number of questions that play in your mind about why -- was this guy really -- you know, was there really significant potential for neutron doses here beyond some nominal amount that we feel like the overestimating approaches address. But we can -- I mean we can get additional information from more expert dose reconstructors than I to look through this and say okay, what's the thought process here and why is this not a missed neutron dose in the case.

DR. WADE: Well, I think we're at the witching hour, so I (unintelligible) --

MR. GRIFFON: Yeah, I think we're at the -- so -- so what -- just to conclude that last one, though, is -- are you going to look into this further --

MR. HINNEFELD: Yes.

MR. GRIFFON: -- Stu?

MR. HINNEFELD: Yes.

MR. GRIFFON: Okay. Yeah, I think it's time to --

MS. BEHLING: I guess we could close out this -- this number 23, though, because the last finding is one that we've discussed before, so we've -- this is, again, the selection of 28 radionuclides as opposed to 12 radionuclides, and this is not necessarily a site with a reactor, so we just questioned that, so just --

MR. GRIFFON: No, I see three more findings, though.

MS. BEHLING: Oh --

MR. GRIFFON: 23.4, 23.5 --

MS. BEHLING: -- oh, I'm sorry, I jumped ahead.

MR. GRIFFON: Yeah, I was going to try to close it out, too, but I think there's more CATI discussion there and it looks like a pretty lengthy one.

MS. BEHLING: Okay, never mind.

MR. GRIFFON: Or I -- yeah, let's just break here at 23.3 --

MR. HINNEFELD: I think -- I think we just ought to take another look at the case in general. We'll take all the comments on this case and make it all part of our additional evaluation of -- of the components of this dose reconstruction and what support do we have for

the approach that was taken.

MR. GRIFFON: That sounds reasonable. All right, we're --

DR. WADE: Now I don't have any --

MR. GRIFFON: -- at a good break point. I'm sure everybody is just about broken.

DR. WADE: -- information -- I don't have any information on the -- the Boston hotels, but LaShawn is working on that. That'll be our operative strategy. We'll try and meet the 27th, close to the Logan Airport. We'll get information to you as soon as we have it.

MR. GRIFFON: There is -- there is a Hilton right at the airport which -- you can -- you don't even have to leave the terminal, but I don't know what -- you know, that's -- that's one option, anyway.

DR. WADE: Right, I just don't know that availability. LaShawn's working on that.

MR. GRIFFON: Okay.

DR. WADE: And then, you know, I'll leave to the working group how it wants to conclude its work on this set of 20 and the next 20. You know, it'd be good to get this thing wrapped up before the next Board meeting --

MS. MUNN: Sure would.
DR. WADE: -- that's at the end of April.
MS. MUNN: That means March.
MR. GRIFFON: Yeah.
DR. WADE: March, both the month and the activity required.
MS. MUNN: Yes.
MR. GRIFFON: All right.
MS. MUNN: And any other definitions you can (unintelligible) trickle on downwards.
DR. WADE: On that note, thank you for your --
MR. GRIFFON: Yeah, let -- let's think of -- of -- I mean I think we might want to reconvene this group --
MS. MUNN: Yeah.
MR. GRIFFON: -- and maybe piggyback with one of the other site profile groups -- I'm not on any other workgroup on the other site profiles, so -- but -- but we can discuss that maybe in Boston, if we come up to Boston --
MS. MUNN: Well --
MR. GRIFFON: -- on the --
MS. MUNN: -- it would really be very helpful for me if we could do that sooner than Boston.
MR. GRIFFON: Well, do -- do you know the other

dates, though, for the other meetings, or do you have your own --

MS. MUNN: Well, I do know that the Nevada Test Site working group does not have a date established. Right, Bob?

MR. PRESLEY: That's correct.

MS. MUNN: Because our original choice of the 28th couldn't be met by NIOSH staff. They didn't have enough time -- not enough hours in their lives --

MR. GRIFFON: Right.

MS. MUNN: -- to get there, so that group is going to have to meet sometime in March, and that has not been determined yet. And my calendar is looking kind of funny. I don't know, it just -- what does your calendar look like, Mark?

MR. GRIFFON: Disastrous, but you know.

MS. MUNN: Well, can we squeeze out another day in March out of this somehow to -- to get -- finish this one up?

DR. WADE: Could be if you pick the day, others will sort of gather around you, so...

MR. GRIFFON: I think we -- I think we have to. Right? We could do -- I could do March 7th or

8th.

MS. MUNN: I (unintelligible) 8th. As I said, I'm -- I'm tied up with a caucus on the 7th which will make it impossible for me to fly on the 7th.

MR. GRIFFON: 7th, 8th or 9th I can do, actually. How about --

MR. PRESLEY: The day of the 8th and the 9th I'm tied up.

MS. MUNN: Okay. How about Friday?

MR. GRIFFON: The 10th?

MR. PRESLEY: Well, that's -- that'd -- that'd be a problem for me 'cause I --

MR. GRIFFON: Getting there?

MR. PRESLEY: -- my meeting is all day on the 9th.

MS. MUNN: Okay. Well, we have our full Board call on the 14th. Can we --

MR. PRESLEY: That's correct.

MS. MUNN: Can we do this the day before or something, or -- well, no, that'd put us traveling, wouldn't it?

MR. GRIFFON: Yeah.

MS. MUNN: Can't do that. I guess we could all be in one place for the call on the 14th and --

MR. GRIFFON: Other-- otherwise I'm kind of out to like March 28th or 29th or 30th.

MS. MUNN: That's awful.

MR. GRIFFON: Yeah, that's a ways away.

MS. MUNN: We need to be able to do that before then.

DR. WADE: How about March 2nd?

MS. MUNN: I can't do it, but you can certainly work around me. I have Oregon State's NE Department in my lap on the 2nd.

MR. PRESLEY: Let me ask you something. Can we have another conference call? This has worked pretty good today.

MS. MUNN: Yeah.

DR. WADE: We can.

MR. GRIFFON: Ray, what do you think about that? Was it okay for you?

DR. WADE: Say again?

MR. GRIFFON: I'm asking Ray if it was okay for him.

THE COURT REPORTER: Yeah, the phone has been good today.

MR. GRIFFON: Yeah.

MS. MUNN: As long as we can get one or two of us somewhere and the -- the NIOSH folks and

SC&A face to face. They're the people who need to be together with the paper more than anything else.

MR. GRIFFON: That gives us more flexibility.

DR. WADE: How about the 3rd of March with that model?

MR. GRIFFON: (Unintelligible) -- with that model.

DR. WADE: Well, I mean some --

MR. GRIFFON: Yeah.

DR. WADE: -- NIOSH and some SC&A people here, others by phone.

MR. PRESLEY: I can make it the 3rd up until about 4:30, then I've got to back off of that, but I'm available.

MR. GRIFFON: But we -- can we do that model on the 2nd? Is that possible?

DR. WADE: This is Wanda's visit.

MR. GRIFFON: Oh, is that your --

MS. MUNN: Yeah, I've -- I've got Oregon State --

MR. GRIFFON: The 3rd I've got --

MS. MUNN: -- (unintelligible) people.

MR. GRIFFON: The 3rd I've got a conflict in the morning.

MS. MUNN: We've got -- well --
MR. PRESLEY: Y'all know (unintelligible) --
MS. MUNN: -- we're meeting on the 27th on the Y-12 and SEC and -- and Rocky thing.
MR. GRIFFON: Right.
MS. MUNN: And NIOSH has said they couldn't support the 28th for a different thing, but could we -- would it be possible for us to finish up these procedures that day?
MR. HINNEFELD: It's okay with us.
MR. PRESLEY: When's that?
MS. MUNN: Huh?
MR. PRESLEY: When is that?
MS. MUNN: The 28th.
MR. GRIFFON: 28th, be back onto the --
MS. MUNN: If we were going to meet in Boston anyway.
MR. PRESLEY: I can handle that now -- oh, you mean two days in Boston?
MS. MUNN: Well, or -- yeah -- yeah. Two days wherever we're going to be. Since we're going to be in -- in the face-to-face process anyhow on a --
MR. GRIFFON: Yeah, I could do that.
MS. MUNN: -- on a different tack, and Jim has

said the NIOSH folks couldn't work up NTS for the other working group, but --

MR. HINNEFELD: We can -- we can be -- we can attend your -- on -- we can do it the 28th.

MS. MUNN: Good.

MR. PRESLEY: I -- I can make the two days in Boston.

MS. MUNN: Okay, let's --

DR. WADE: I'll tentatively schedule that.

MS. MUNN: Okay.

MR. GIBSON: So that -- that's February 27th and 28th?

MS. MUNN: Correct.

MR. GIBSON: Okay.

MR. HINNEFELD: We'll have to travel out on the 28th. We'll have to leave Boston and come home on the 28th. We have to be in the office on the 1st.

DR. WADE: Okay. Okay.

MR. GRIFFON: Okay.

DR. WADE: So we can start early that morning 'cause we'll be there already.

MS. MUNN: Uh-huh.

DR. WADE: And we'll try and leave people time to get home to their -- their homes by the --

by close of the shift on the 28th.

MS. MUNN: Yeah.

DR. WADE: It's a plan.

MS. MUNN: Everybody but me.

MR. PRESLEY: I don't know how much I can fly out of Boston that late in the afternoon, either.

MS. MUNN: No, might as well hang out.

MR. HINNEFELD: Oh, shoot --

DR. WADE: What (unintelligible) --

MR. HINNEFELD: Forget -- forget it, we'll get out of it.

MR. GIBSON: Mark, they have flights back to Cincinnati on the 28th. Right?

MS. MUNN: Sure.

MR. GRIFFON: They should -- they should go -- I think -- I think at least till 9:00 or so -- 8:00 or 9:00.

MR. GIBSON: Okay.

MR. GRIFFON: Yeah. So you should be (unintelligible) --

MR. GIBSON: (Unintelligible)

MR. GRIFFON: -- yeah, you should be all right.

MR. GIBSON: I've got the kids to take care of, so...

MR. GRIFFON: Yeah. Okay, that -- that should work, 27th and 28th then in Bos-- hopefully in Boston.

MS. MUNN: Yeah, we'll all be numb by then.

MR. HINNEFELD: You're not already?

DR. WADE: I'll let you know as soon as I know about the hotel availability.

MS. MUNN: Good.

MR. GRIFFON: All right.

MS. MUNN: It ought to be someplace close.

DR. WADE: We'll figure out something.

MR. GRIFFON: Thanks a lot, everyone. Sorry I couldn't be there in person.

MS. MUNN: Thank you.

(Whereupon, the working group meeting was adjourned at 4:45 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 February 13, 2006; 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 3rd day of April, 2006.

_____

STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102