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NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND WORKER HEALTH

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SUBCOMMITTEE ON PROCEDURES REVIEW

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THURSDAY
APRIL 25, 2013

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The Subcommittee convened via teleconference, at 10:30 a.m., Wanda I. Munn, Chair, presiding.

PRESENT:

WANDA I. MUNN, Chair JOSIE BEACH, Member RICHARD LEMEN, Member PAUL L. ZIEMER, Member

ALSO PRESENT:

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TED KATZ, Designated Federal Official BOB BARTON, SC&A KATHY BEHLING, SC&A ELIZABETH BRACKETT, ORAU RON BUCHANAN, SC&A HARRY CHMELYNSKI, SC&A ROSE GOGLIOTTI, SC&A STU HINNEFELD, DCAS MIKE KUBIAK, ORAU JENNY LIN, HHS JOYCE LIPSZTEIN, SC&A LORI MARION-MOSS, DCAS STEPHEN MARSCHKE, SC&A JOHN MAURO, SC&A MUTTI SHARFI, ORAU MATTHEW SMITH, ORAU SCOTT SIEBERT, ORAU JOHN STIVER, SC&A ELYSE THOMAS, ORAU

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10:31 a.m.

MR. KATZ: Okay. So let's get started. This is the Advisory Board Radiation and Worker Health. This is the Subcommittee. Procedures Review Welcome, everybody, and let's do roll call, beginning with the Board Members.

And conflict of interest. We have Hanford; two Members, Josie and Wanda, conflicted at Hanford. We are going to do a related to transfer PER on Hanford. But otherwise, I don't don't have any ___ we conflict issues with our Members, so we don't need to address those specifically at all.

So let's go with Board Members.

(Roll call.)

MR. KATZ: Everyone, the agenda for the meeting is posted on the NIOSH website under the meetings page for today's date.

And, Wanda, it's your agenda.

1	CHAIR MUNN: Thank you. 9
2	MS. BEHLING: Excuse me, Wanda, for
3	one second. This is Kathy Behling and I
4	apologize, but I was trying to log on to Live
5	Meeting and I must be doing something wrong
6	here, because what I'm looking at on my screen
7	it says that this is the TBD-6000 Live Meeting
8	Practice. And I'm not sure what I'm doing
9	wrong here.
10	MR. KATZ: So, Kathy, you must be -
11	- you have the wrong invite, I think, if you
12	are getting that message.
13	MS. BEHLING: Okay.
14	MR. KATZ: So you should have a
15	calendar invite for this meeting today. And
16	if you I don't think you should get that
17	response if you are using that.
18	CHAIR MUNN: It wasn't sent until
19	this morning, Kathy.
20	MS. BEHLING: Okay.
21	MR. KATZ: Well, previously sent.

1	It has been resent this morning, Wanda. 10
2	CHAIR MUNN: It was not received
3	here. If it wasn't received here, it may not
4	have gone other places as well.
5	MS. BEHLING: Okay. Can someone
6	resend that to me?
7	MS. BURGOS: This is Zaida. I will
8	send it.
9	MR. KATZ: Thank you.
10	MS. BEHLING: Thank you. I'm
11	sorry.
12	MR. KATZ: Oh, that's all right.
13	Okay. So carry on, Wanda.
14	CHAIR MUNN: Very good. We are
15	happy with roll call now. We are all squared
16	away.
17	The first item on our agenda is our
18	review of what has transpired with the BRS
19	since our last meeting. When we left that,
20	there was going to be some internal
21	discussions with NIOSH as to how we were going

to be able to handle, especially, the overarching issues and the differing kind of information that we were going to be providing for the system.

It did differ in a number of ways from what we do with our normal documentation.

And I'm hoping that Stu and the folks from NIOSH have some report from us -- for us on that particular issue. Stu?

MR. HINNEFELD: Yes, this is Stu. I'll provide what I can here. We did have a discussion about what to do here and decided that the current method where we listed them as an overarching issue, sort of as a document-type, is probably the easiest way to continue to proceed.

And so what we are trying to do now is find the source for the particular issues, the particular overarching issue and then sort of paraphrase a finding from that source.

For instance, a couple of items on

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the overarching list; one is Super $_{1}$? plutonium.

CHAIR MUNN: Yes.

MR. HINNEFELD: Another one is incomplete badge wearing, you know. You know, what happens when somebody says they didn't wear their badge all the time or they -- you know, to avoid bumping into a limit or something.

And I did find out, I don't know if it's the actual origin, but I found an early document that raised those two issues and that was the SC&A review of the Rocky Flats Site Profile, which goes back to 2005, I think.

CHAIR MUNN: Mm-hmm.

MR. HINNEFELD: So that seemed -you know, that is pretty early, so that seems
like a pretty good place to identify that.
And then what I have to do then is sort of
paraphrase the finding, make sure I refer to
the page and section, so that people can find

the write-up as the finding entry, because $\psi_{\mathfrak{S}}$ don't -- you know, for most of our procedures, review is based on a document where a document is reviewed and then you have several findings tagged onto that document.

In this case, what we have is sort of a document called "Super S Plutonium." You know, because it went in in that fashion. And so what we are doing now is trying to find So I found those two origins. those. Two of the overarching issues already before meeting had an origin in there. They taken off of other procedure findings that had already been entered into the procedure documents.

And I'm pretty confident I'll be able to do this once we get to the point where the BRS will let me add a finding. I have tried to do that, I guess, either Monday or last week and it didn't work. PST worked on it in the meantime, had me try it this

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morning, I still get a message about issue with adding information when I try to add a finding.

So you know, whether I'm doing something wrong or whether there is an issue with the system, we are still working it out. That's where we intend to be.

And then once we put those in, for instance, for Super S plutonium, we think that's pretty much resolved by issuance of an OTIB. I don't remember the number. And which that OTIB itself has now been reviewed and I think we are through that.

So I think we can kind of -- once we get the finding in there, we will put in our conversation, you know, probably just one entry box about what has been done.

CHAIR MUNN: Right.

MR. HINNEFELD: And complete it and then, at some point, presumably the Subcommittee would be able to come through to

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close, at least, that one anyway. And I think more of them.

CHAIR MUNN: My memory is that the hot particle issue came from several different site reviews.

I did want to talk MR. HINNEFELD: the hot particle issue a little bit, in my view, there are kind of because, things we have talked about as hot particles. There is the hot particle issue which has come up at Hanford, and I think it came up maybe in 2010 or somewhere around there with respect to Hanford, which is a period of time, I quess during the Green Runs, where there pretty good potential for а hot particle issue.

CHAIR MUNN: Mm-hmm.

MR. HINNEFELD: And then the other time we have talked about something that we called a hot particle, which really isn't in my view a hot particle, which is the uranium,

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potentially for uranium skin contamination, unidentified uranium skin contamination some of the uranium processing plants, like the gaseous diffusion plants or Fernald, for instance, where there were rules -- there was not any contamination monitoring. There were rules about showering at the end of the day and things like that. But there could, you know logically, have been during the day some skin contamination occurring there, because there wasn't the attention paid to avoid skin contamination at uranium plants until much, much later.

So that's the second. It's kind of the second thing. To me, the two issues are different on several respects. And so there might be another one we may need to -- and I'm not real clear on what this hot particle issue on the overarching issues was supposed to capture.

Was that supposed to capture the

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Hanford situation or was it supposed to capture the uranium plant situation?

CHAIR MUNN: Well, and that there is another aspect of that question, too, that I don't think we have actually addressed and is whether we need to have multiple findings factored in. We indicated that we were aware that, simply by definition, being an overarching issue, we were likely to have this show up in more than one site review.

And whether we were going to attempt to regard all the places where it had been identified or whether we were going to simply accept the earliest one that we could find and acknowledge as being the origin is think, something not, that was defined at our last meeting.

MR. HINNEFELD: Yes. I think, as you mention that, you're right. We could just enter two findings under hot particle. One would be the Hanford situation and one would

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be the uranium situation, because nothing prevents us from putting two findings under any of these overarching issues.

CHAIR MUNN: Right. I guess it's a question that probably should be addressed here, so that it would save you a considerable amount of time if the decision were made that one finding would be adequate.

Paul and Josie, what are your thoughts on that?

is MEMBER ZIEMER: This Ziemer. in mind that part of all this is to assure that we are being consistent in how we treat these issues from site to site, within whatever -- there may be differences in some of the parameters, but we want to be able to identify not only where these occur, but the level of consistency, for example, in how we handle hot particles from one site the other.

How we handle, let's say, oro-nasal

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from one site to the other, 1 breathing 2 insofar as we populate this with information 3 will help us confirm the level 4 consistency, Ι think, that would 5 important issue. 6 CHAIR MUNN: Thank you, Paul. 7 Josie? 8 MEMBER BEACH: The only thing I 9 have is I agree that having it in the section that Jim was just talking about would make it 10 easier to come back and find. But I do have a 11 12 question. Jim, you talked about going back 13 and looking at earlier documents. 14 Will you--15 MR. HINNEFELD: This is Stu, actually. Jim has the list. 16 17 Oh, okay, I'm sorry. MEMBER BEACH: 18 MR. HINNEFELD: This is Stu doing 19 the report. 20 MEMBER BEACH: Stu, so will you go back and look for all earlier documents to try 21

to populate that system?

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MR. HINNEFELD: Now what I intended to do was find a document, an early document, where the finding came out, where the from that then, up. And so Ι don't propose that we would search all early documents. I think we have some probably memory of where they are likely to be. And they probably came up primarily in one place.

I think that it was not my intent to search all early documents.

MEMBER BEACH: Okay. I was just going back to the consistency that Paul brought up.

MR. HINNEFELD: I understand. Т understood your comment once Ι started And I think that it will be fairly clear, at least in the ones I'm thinking of, which ones they are to deal with, because I'm pretty sure, for instance, the indications that the badges may have been taken off and

not worn all the time. Rocky Flats was not the only place we heard that. There are other places.

CHAIR MUNN: No. We heard a lot of that from NTS.

MR. HINNEFELD: And so I think it has been addressed individually at several places.

CHAIR MUNN: I think you are correct.

MR. HINNEFELD: So we can probably do that as part of the conversation that we include under a finding if it's only going to be one finding. As I thought about this, if it's okay with the Subcommittee, I think the easiest thing for us to do with respect to the specific question I asked about hot particle items is to list two findings under the overarching issue of hot particles, of which would be the Hanford situation. And one of which would be the uranium plant situation.

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And then in the conversation undex the uranium plant, we would describe if and how we are going to do anything about that or the various, you know, uranium sites, and kind of name the DOE sites and then there would be some -- may be some consideration for AWE sites that used uranium as well.

CHAIR MUNN: That sounds reasonable to me. My instinct is to go for the simplest solution, which is to identify an early incident of this type of overarching issue that we are addressing. And then, as Stu has suggested, in the text itself perhaps indicate when there is knowledge of more than one site where this might have occurred.

But I certainly take your point well, Paul, but it seems to me that getting to the information to verify how it was treated in any given case is adequate for bolstering our desire for equity. But I could be persuaded otherwise. That's just looking for

the simplest solution.

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Paul, do you feel that we really should try to track down each incident or should we be -- should it be adequate for us to have this resource available for us to identify how the issue was addressed originally?

MEMBER ZIEMER: Well, I think some of these will pop up going forward actually. SC&A runs across this from time to time and I think they typically also look at how things were treated in the past. And maybe in a sense this also helps them going forward to say okay, what was done the last time we dealt with this particular issue.

John Stiver, John Mauro, may want to comment on that, but I think it's just a tool for helping us remember what was done in the past. Maybe we populate it as we go. I don't know.

DR. MAURO: I have a thought on

this. This is John. Very often these kingle of questions come up during a DR review. It could be a Site Profile Review or procedure review, but they often come up during a DR review, at least in my case, with regard to uranium.

Now, the way I look at it is all we are is sort of -- we're sampling DRs. We are looking at it at about 1 percent. And when we identify something, like in my case, I could speak not to the Hanford, but to the uranium. Whenever I see that, it looks like there's a place where maybe we should have looked at uranium doses to the skin, on the face, for example. And I put that in as a finding.

Now, the reality is all that has to be done is once, because now it becomes an issue that needs to be addressed, whether -- in this case, it will be by a DR Committee. It could be kicked over to an overarching scientific issue, but it's in the system.

And I think that's all that is important. I don't, I mean I, for one, see the need to track every single one of these because I could tell you when it comes to uranium, none of them have been calculated in a way where you give a localized dose.

I can't say that for sure, but even if it is, let's say it turns out some did and some didn't, when it eventually becomes a PER, it then becomes NIOSH's role to go run it down and say okay, in how many cases? Once it is decided yes, this is the protocol we should use for doing hot particle like the one that occurred at Hanford or yes, it is agreed here is the protocol we should use when we think perhaps the uranium dose for the face particle is an issue.

And that's a judgment that is made.

Well, I'm just presuming that that would

trigger a PER process where then NIOSH would

have to go back and search in what cases that

were done in the past that might need to be looked at.

So, to me, the exercise of going back every time it is discussed and in what venue it was discussed seems to be something that might not be necessary.

CHAIR MUNN: I would agree. Do you have any thoughts, John Stiver?

MR. STIVER: Yes, I tend to agree with John on this. I mean, we've got to look it. Ι think Stu's approach of kind of looking at it as kind of an overarching problem common to, you know, whatever, however many sites there may be as more of an approach and then cannot, you know, take a look at that and see what the effects are.

And, you know, as John said, if it turns out that this is going to make a new exposure pathway that is going to result in increased doses, the PER process should be able to capture the number of cases,

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individual cases. 1 And so there really would 2 track every be no need to try to single 3 individual case that might come up. I like this proposal. 4 It's a good 5 idea. Are we all on 6 CHAIR MUNN: Okay. 7 page or do we have a disagreement 8 here? I think what I'm hearing is: identify 9 the earliest one that's reasonable to try to identify and flesh out the information in the 10 11 text go along. Is that what as we 12 hearing? I think that's a 13 MEMBER ZIEMER: 14 good start. I'm okay with that. I'm fine 15 with Stu's suggestion. All right. 16 CHAIR MUNN: This is Josie. 17 MEMBER BEACH: I'm 18 okay with that as well. All 19 CHAIR MUNN: Good. right. 20 Anything else we need to say about that? Any 21 other issues that come to mind or, Stu,

1 there any concern on your part as to where we 2 are going with this? 3 HINNEFELD: No. We will be farther along once we figure out what is going 4 5 I think I must be -- everybody can add on. 6 findings on our site, but me, so it must be 7 something I'm doing. 8 CHAIR MUNN: Oh, well, not my, 9 necessarily. Blame the system when you can. 10 MR. HINNEFELD: Yes. I would, except I have experienced 11 my ability to use computers, so that's where 12 the problem probably lies. 13 14 (Laughter.) 15 CHAIR MUNN: Thanks, Stu. are finished with that one, let's move on to 16 our next agenda item, which is a couple of PER 17 follow-up items from NIOSH. 18 believe 19 Ι that had we some shortly 20 communication before the meeting

indicating that we would like to substitute

PER-31 for PER-11 and vice versa because of the timing of the two. Apparently, we have completed the PER-11 reviews and 31 perhaps is not quite done yet. So let's take a look at a quick follow-up item status for PERs 31 and 30.

Who is doing them?

MR. STIVER: Actually, I think what had originally going to do is we scheduled 31 and it turns out that there has some thorny issues in resolving details regarding thorium disequilibrium and so that one is not ready. We are probably going to be about two weeks out, but we were able to get PER-11 done.

And so what we wanted to do is rather than discuss PER-31 today, we will discuss PER-11.

CHAIR MUNN: That's good. Is there anything on PER-30?

MR. STIVER: Excuse me? This right

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here has some follow-on actions regarding the universe of cases that was being developed that were identified for PER-11 and 30. And because we are discussing PER-11 today, Kathy is going to present that. It may be better to talk about this universe of claims during that discussion.

CHAIR MUNN: All right. Whatever is best.

PER-30, this was the MR. STIVER: situation at the Savannah River Site. A TBD TIB revision PER that Ron Buchanan currently working on. An issue that came up that there 54 claims that was were were identified that could have been impacted by this PER.

And, you know, the question that often comes up is well of those, how many were actually impacted and have dose reconstructions redone, reworked and what would be the distribution of the PoCs within

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that, which then allows us to go in and identify which cases we would like to select for review under Sub-task 4.

And I know that I saw that NIOSH had posted a couple of spreadsheets regarding the PER-11 and PER-30. Now, taking a look at that, Ron, have you had a chance to look at that spreadsheet that NIOSH had put up there yet?

DR. BUCHANAN: Yes. This is Ron Buchanan. Yes, I looked at the spreadsheet and then I went back and did a query of my own and came up with similar numbers. I was just in the process of cross-referencing the two XL spreadsheets.

See, there are a few cases I came up with and they didn't and they came up with a few cases I didn't, so I'll have to go back and reconcile that. But at this point, I'm still evaluating the basis of PER-30 as far as content. And then the cases to address, I

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guess, in my initial report I'll put in what34 1 2 think would be a reasonable approach to go in. And since there is 48 cases that 3 would be subject to auditing, you know, that 4 would be too many probably to do, I would 5 select some criteria to look at, say, 10 of 6 7 those and see if they look like cases that are 8 good candidates and then see if they do or do not meet the criteria. 9 I believe that NIOSH came up with a 10 final evaluation that none of them met the 11 12 PER-30 requirements. 13 CHAIR MUNN: Do we have a response from NIOSH? 14 15 MR. STIVER: Do we have a response 16 from NIOSH? Maybe Scott could kind of elaborate on the selection process that you 17 18 guys went through. SIEBERT: I believe that's a 19 MR.

NIOSH question, not me, sorry.

MEMBER ZIEMER: Well, this is

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1	Ziemer. Which one are we talking about no y_3
2	11 or 30?
3	CHAIR MUNN: We are talking about
4	30.
5	MR. STIVER: We are talking about
6	30.
7	CHAIR MUNN: Hopefully.
8	MR. STIVER: The Savannah River
9	Site.
LO	CHAIR MUNN: And I'm assuming,
11	since we have no findings, we probably have
L2	nothing on the
L3	MEMBER ZIEMER: Right, nothing new,
L4	yes.
L5	MR. STIVER: Yes, this is a PER
L6	that is currently under development.
L7	CHAIR MUNN: Right.
L8	MR. STIVER: So this was just
L9	something that came up in our discussion about
20	remember, there were several PERs that we

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had not started working on and at the last

like 1 meeting, Ι gave а little summaxy 2 presentation of why we thought that you 3 know, what the limitations might in completing a full PER on those cases. 4 5 I think we had CHAIR MUNN: Yes. thought we might be one step further along now 6 7 than we seemed to be. 8 MR. STIVER: And this was really a 9 question of: has the universe of cases been fully identified within that universe of the 10 11 cases that could potentially have been reworked and that we would want to look at? 12 So it's to the Sub-task 4 case selection. 13 14 CHAIR MUNN: And 5. And we are kind of 15 MR. STIVER: getting -- trying to get ahead of ourselves. 16 17 We gained a little bit on that. 18 CHAIR MUNN: Right. So the question really hasn't been formally posed to 19 20 NIOSH yet.

Exactly.

MR. STIVER:

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To put it in

1 simpler terms, that's true. It just hasnat 2 been posed at this point. 3 CHAIR MUNN: All right. That's 4 good. 5 But we're trying to do MR. STIVER: that a little bit farther out in advance in 6 7 hopes that -- so we don't have a long waiting 8 period after we complete the Sub-task 3 review 9 while we are waiting to do the case reviews. 10 That has happened in the past. That's 11 CHAIR MUNN: fine. I'm gathering from the previous information, what 12 was just said, that we will probably have --13 we will definitely have PER-31 next time? 14 15 MR. STIVER: Yes. I think we are probably about two weeks from getting a draft 16 17 review ready to go on that. 18 CHAIR MUNN: And probably will something formally to NIOSH 19 in the 20 interim, so that perhaps NIOSH may have some 21 response to PER-30 for us next time, maybe,

right? 1 36 2 MARION-MOSS: Wanda, this MS. 3 Lori. CHAIR MUNN: 4 Yes. 5 MS. MARION-MOSS: I'm a little it that 6 confused here. Exactly what is 7 need to respond to for PER-30? What are 8 what is the Board looking for here? 9 I understand it, CHAIR MUNN: Ιf 10 SC&A questions with respect has some 11 whether or not the universe of potential claims has been adequately surveyed. 12 Am I 13 counting that correctly, John? 14 MR. STIVER: Yes. We the got Out of 54 claims, 15 spreadsheet. there is identified for -- there was no return. 16 And six identified they were not evaluated. 17 18 just hoping if you guys could kind of elaborate a little bit on the meaning of those 19 20 different terms. What did you actually find when you 21

went in and looked at those? Because we were really trying to identify, you know, of the 54, which have been reworked that meet the four criteria under PER-30 that we could then possibly work into our Sub-task 4 case review?

CHAIR MUNN: Ted presented that question to you formally, yes. All right.

MR. KATZ: This is Ted, Wanda. Can I make a suggestion for John and Lori with these? I understand what the issue is. And I know, John, SC&A -- you know, part of your process is to review whether, you know, all the cases that should have been reviewed under PER were reviewed under the PER, that's sort of an element of your review.

I would suggest, I think you can have a discussion with DCAS off-line on each of these PERs as you get into it, as Ron has, and you have questions about, you know, why he keeps coming up with a different potential universe of claims that might have -- should

1	have been reworked DCAS actually reworked 38
2	I think we can just go ahead and
3	have a conversation with them to get clarity
4	as to what they did, why, and then about your
5	own thinking and then you can just cover it in
6	your report accordingly.
7	MR. STIVER: Okay. Yes, that's
8	going to be a better use.
9	MR. KATZ: I don't think you need
10	to use, you know, Subcommittee time really to
11	get this. You are welcome to just call them
12	and pursue that question and then address it
13	in your report.
14	MR. STIVER: Okay. So, Ron, I
15	guess the best thing to do is just to work
16	with Lori on getting this resolved as we get
17	close to the Sub-task 4 part of the review.
18	DR. BUCHANAN: Okay. I'll do that.
19	MR. STIVER: All right.
20	CHAIR MUNN: I'll probably still
21	have that item on the draft agenda when I send

it out the next time, whenever that is. And one of you can correct me if I'm wrong on its assignment.

The next item on our agenda is the PER case reviews for PER-14 and PER-17. I believe Kathy was going to do that for us?

MS. BEHLING: Correct.

CHAIR MUNN: Morning.

MS. BEHLING: Yes, good morning. This is Kathy. First of all, before we start this discussion, Wanda, I'm wondering if PER-14 is the first Sub-task 4 review that we have done where we have actually had some findings? And I don't believe, at this point in time, we have a method of putting that information on the BRS, or has that been resolved?

I thought what we might want to talk about is how you are going to go about putting that information on the BRS, because we have separate findings for PER-14 review, which is construction trade worker, and now

this is the case review portion Sub-task 4 of 1 2 our protocol. 3 CHAIR MUNN: You are right. have not gone to that depth up to this point. 4 5 And PER-14 is probably the ideal place to do that, given that kind of attention that PER-14 6 7 has. 8 there discussion Has been any 9 behind the scenes about how that might be 10 done? Steve? 11 MR. SIEBERT: No, not as far as I 12 know, Wanda. I was just assuming that they 13 would tag them onto the end of the -- I guess right now there are six findings in PER-14 on 14 15 the PER itself. 16 CHAIR MUNN: Okay. MR. SIEBERT: I would just assume 17 18 you would tag the sub -- the Part 4 19 findings on the audit, I quess, you know, just 20 make them from Finding 7 and onwards.

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had thought

CHAIR MUNN:

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that

might be the case, as long as they are identified.

MR. SIEBERT: And you, yes, can identify them in the text or something like that or maybe -- I don't even know. You know, I am not sure in the -- in how you set up the finding number.

CHAIR MUNN: Can we take a look at the findings, the active findings that we have right now?

I believe that all of MS. BEHLING: findings PER-14 should have been the for closed, but, you know, there will be 15 new findings for Sub-task 4. I didn't know if you wanted to have a separate document title that would say "PER-14 Sub-task 4" and then the numbering could reflect that this is Sub-task Finding 1-Sub-task 4 or something along those lines or if you just wanted to tag it onto the --

MR. SIEBERT: Kathy, I would just

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tag it onto the existing PER box and then the numbering scheme is flexible. I mean, you can put in whatever number you want. And if you want to put in PER-014-04-01 to indicate that it is, you know, a Sub-task 4, you can do that in the numbering scheme the way you number the findings.

CHAIR MUNN: My instinct would be to not do that because we get confused enough already with the different numbers between SC&A's numerics and our own, sometimes.

My suggestion from the point of view of an outside use, essentially, is to continue the numeration that has been started and is a part of the heading of that particular item, address it as being Type 4.

MR. SIEBERT: We could do that as well, Wanda. That's perfectly fine.

CHAIR MUNN: That seems logical to me. Other users who don't become involved in how we put this together, if you are going to

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look for it, Paul and Josie, what's your feeling with respect to what you would expect to see and where you would expect to see it?

MEMBER ZIEMER: This is Ziemer. I

think as long as it's under the PER-14 or whatever the number would be for a particular situation, that's where you would want to look for it.

I think you do want to identify it as the Sub-task 4 in some way, but that could be done in either the title or something like that. In other words, right now, on this particular one, on 14, how many findings do we have, Steve?

MR. SIEBERT: Right now we have six findings. And Kathy just said that we had 15 findings on the Sub-task 4. So, you know, the first Sub-task 4 one would then be, you know, Finding 8.

MEMBER ZIEMER: That would --

MR. SIEBERT: We would start with

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2	MEMBER ZIEMER: be 8. Finding
3	8.
4	CHAIR MUNN: Oh, I thought we only
5	had seven? I thought we only had six. We
6	have seven?
7	MR. MARSCHKE: Maybe we have
8	maybe you're right, Wanda.
9	CHAIR MUNN: So this would be
10	Finding 7.
11	MR. MARSCHKE: Then this would be
12	Finding 7.
13	CHAIR MUNN: Correct?
14	MR. MARSCHKE: Okay.
15	MEMBER ZIEMER: Well, whatever it
16	is, is there a way that we can go to the
17	system and pull out the findings for Sub-task
18	4s? Is that a sort possibility or is it not
19	important that we be able to do that?
20	CHAIR MUNN: I don't think it's a
21	possibility now, as I know it.

MR. MARSCHKE: Right now, I don4t think it's a possibility, Paul. Yes, I agree with Wanda. I don't think it is.

MEMBER BEACH: This is Josie. I agree with Paul. I think it would be -- in the future a year from now, if I'm going to want to look at Sub-task 4, then I'm going to want to search for the PER-14 Sub-task 4. And I guess if it comes up and directs us to those findings, but in the search criteria that would be important.

MR. MARSCHKE: Well, in the search criteria, you are going to go -- if you know you are in 14, that's why -- I mean, if you know you are PER-14, that's why I think it is important to put all the PER-14 stuff together so you know that, you know, you have gotten everything in one spot, so when you are looking for PER-14 -- and then when you get to this screen here that I'm looking at now, if it is a Sub-task 4, it would be right in the

heading there, basically, where it says, you know, PER-14-1, the deep dose assessment factor, we would say Sub-task 4 and then, you know --

MEMBER ZIEMER: Finding whatever.

MR. MARSCHKE: -- finding, yes, whatever. We would prefix this little heading here and you would have to just scroll down. There is no way to -- as I understand it and, Lori, you can correct me if I'm wrong, but as I understand it right now, there is no way to search on and pull up individual findings.

MS. MARION-MOSS: You're correct, Steve. Right now, I agree with you. Due to search mechanism, if we keep all findings to a particular document in one location, we will be better off.

A user would just have to know that, you know, they would need to read the title of each of the findings.

MEMBER ZIEMER: This is Ziemer. As

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a practical matter, the Sub-task 4 items are always going to be tagged onto the end, I think, right?

MS. MARION-MOSS: Right.

MEMBER ZIEMER: So one would know that if you want a Sub-task 4 item, you would just go to that set of findings and look, scroll down until you get to those particular ones. So I would be all right just tagging them on and just to verify as Sub-task 4 items.

This is Kathy. MS. BEHLING: Ι question then is: in quess mУ our report currently our findings are numbered 1 through And so you are going to have -- unless we go back in and change our report to start our numbering with 8, we can do that, I was just wondering if we couldn't make these findings-from Sub-task 4, findings 4-1 and then 4-2? Could we --

MR. MARSCHKE: Well, Wanda didn't

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want to do that, Kathy.

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MS. BEHLING: Oh, I see. Okay.

MR. MARSCHKE: And so I mean, would suggest that we -- you know, again like said. we already know which ones going to be fixed from the PER review. We either have six or, you know, however findings have. And then when you we start doing your Sub-task 4 review, you pick the numbering scheme from there in the future.

And for this one in PER-14, we can take care of it when the findings are entered, we can make a little note saying that, you know, Finding 7 is identified in the Sub-task 4 report as Finding 1 or something like that.

CHAIR MUNN: Yes.

MR. MARSCHKE: But I would suggest that when SC&A in the future makes a Sub-task 4 report, that they, you know, continue the numbering scheme from the review of the PER

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itself. 1 49 2 CHAIR MUNN: Okay. 3 MEMBER ZIEMER: And this is Ziemer. You could just indicate in the report itself 4 5 that that's what you are doing, so that, you 6 know, if you say, okay, we have 10 findings 7 and the first one is finding number such and 8 so, just indicate that it is a continuation of 9 the previous set of findings--10 CHAIR MUNN: Okay. That --11 MEMBER ZIEMER: for that particular --12 13 MS. BEHLING: And then my final question on this issue is: would you like us 14 15 to reissue this report changing the finding numbers? 16 I personally would 17 CHAIR MUNN: I think we can accommodate it with the 18 not. 19 entry that we make into our BRS. 20 MS. BEHLING: Okay. 21 CHAIR MUNN: I think as long as we

say something in the entry that we make, it

2 should be clear to anyone who picks it up. 3 MR. KATZ: This is Ted. Kathy, if 4 it's easy to do to renumber the report though, 5 just to accommodate, then great. But by all means, don't hesitate to do that because I was 6 7 just thinking down the road, it does 8 little bit tiresome when you have to 9 from one number to another and so on. 10 If it's easy to do and quick to do, 11 by all means. Otherwise, you know, 12 Wanda's guidance. 13 MS. BEHLING: Okay. It should not 14 be a problem to redo that. That's not a 15 problem. So we will reissue the report and we will start our finding numbers with number 7, 16 17 correct? 18 CHAIR MUNN: Correct. 19 MS. BEHLING: Okay. 20 MR. KATZ: Thank you, Kathy.

Okay.

MS. BEHLING:

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All right.

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am ready to talk here about PER-14. I assume -- I'm going to assume that everybody has the document. It was sent to you on April 12, 2013.

Now, I also had marked up a PDF copy that I was going to show. I don't know if that's necessary on the Live Meeting, but I'm not able to get in, because it's full. It doesn't matter to me. If you all have a copy, it may not be necessary. It's up to you. If you would like me to just go through it, if everyone has a copy in front of you, I can talk right from the hard copy.

CHAIR MUNN: Well, if we don't, we can go back to your original transmission and get it, Kathy.

MR. KATZ: Kathy, if you want me to drop out, I can drop out right now. Okay?

MS. BEHLING: It doesn't matter. Whatever the Subcommittee wants. Okay.

MR. KATZ: If you want to do it on-

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line, that's fine. 1 52 2 MS. BEHLING: Okay. Do the Members 3 of the Subcommittee have the report? this 4 MEMBER BEACH: Kathy, I have the report in front of me. 5 Josie. 6 CHAIR MUNN: Yes, and I have it. 7 MS. BEHLING: Okay. 8 MEMBER ZIEMER: This is Ziemer. Ι 9 have the report also. 10 MS. BEHLING: Okay. All right. Ι will just -- in one second here, I will try to 11 get patched in and put it up on the screen, 12 13 but it sounds like everyone does have 14 Hang on one second. 15 Because I have highlighted a few things and I will tell you up front, this is--16 originally 17 this done report was Gogliotti of SC&A and John and I have reviewed 18 19 it. 20 And it is a lengthy report. And as 21 I have stated, there are 15 findings. And so

I do think it is important that I walk was through the entire report. If we didn't have any findings, like you will see on the PER-17, I think I could do more of a summary type thing. But in this case, I believe we do want to maybe walk through. I'll try to be as brief as I can and if you have any questions along the way -- and I think Rose is on the phone also and so if there's something I can't answer, I'm sure she can.

MS. GOGLIOTTI: Absolutely.

MS. BEHLING: Okay. I am trying to get on here. Just one second. I'll see if I can and if not, I won't hold things up here and I'll just start.

MR. STIVER: Kathy, this is John.

I do have the 14 documents. If you can't get
in, I could go ahead and put it up there for
people to look at.

MS. BEHLING: Okay.

MR. STIVER: But it sounds like you

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have an annotated version that you want $\xi_{\mathcal{A}}$ use.

MS. BEHLING: Yes, I just have some things highlighted to bring to everyone's attention.

MR. KATZ: Yes, this is Ted. I've dropped off.

MS. BEHLING: Okay.

MR. KATZ: You should be able to get in.

MS. BEHLING: Okay. Still looking.
Okay. There we go. Okay. One more second
here. It's still thinking about it.

What I'll do while this is -- while I see if I can bring this up, I'll start and I'll start here and just remind everybody -- hold on one second, it's asking me to do something here. Maybe I can bring it up.

Well, I'll get started. Obviously,
PER-14 was the construction trade worker PER
and it was initiated because of the issuance

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of OTIB-52, which are parameters to consider when processing claims for construction trade workers.

16, 2012, And March SC&A on submitted our review of PER-14. And at that time, we -- I think there were -- I was going there six findings. Ι that were believe those findings have been closed. And we were now asked to go in and do Sub-task 4, which is the review of specific cases.

We suggested to the Subcommittee that we select at least 10 cases because there are 10 sites that were affected by PER-14.

And, in fact, in Table 1.1 you can see the listing of those 10 sites.

The initial universe of claims -okay, hold on one second here. I think I may
be able to pull this up on the screen now.
Let's see. Hold on a moment.

MEMBER ZIEMER: It's showing on mine. This is Ziemer. It's now showing on

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1 your -- on the desktop. 56 2 Okay. John must have MS. BEHLING: 3 put it up there. 4 MR. MARSCHKE: I got it. Actually, 5 this is Steve. I got it up. 6 MS. BEHLING: You have up. 7 Okay. Thanks. 8 MEMBER ZIEMER: Okay. 9 could MR. STIVER: Steve, you possibly reduce the magnification? 10 It's at 130 percent right now and a lot of it is kind 11 of trailing off the edge of the screen. 12 13 MR. MARSCHKE: That's correct. 14 MS. BEHLING: Okay. Then I won't 15 put mine up, because like I said if yours is already there, then I'll have Steve just maybe 16 17 scroll down as I'm talking and I'll tell you 18 what page we are on here. We are on page 7 and below Table 1-1. 19 20 There were initially 977 potential cases that were identified by doing a keyword 21

search of 31 different construction trade job functions. And then those -- the criteria -- we followed up with the criteria that those construction trade workers had to have external coworker dose assigned. They had to involve the definition of the construction trade worker.

And for all of the sites but Hanford, they had to have a PoC of less than -- I'm sorry, a PoC was triggered if it was percent and 29 percent for Hanford. Hanford has those internal and external component to it.

And we had to verify that there were no other PERs affected by this claim. Those were the criteria that were used. And based on that criteria, the 977 cases were reduced to -- it eliminated 925 of the cases. And you can see which were -- what -- how that happened in our Table 2.1 on page 10. And so there were only 52 cases that were actually

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returned to NIOSH.

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Now, as with regard to our approach when we do a Sub-task 4 review, a case review as we have been tasked, the SC&A only verifies the methodology and the correct -- you know, the reworked portion of these cases that is associated with PER-14.

And so in this case, we are only going to look at the external dose for all of t.he sites for the construction trade worker/ coworker dose portion of the external for all of the sites except for Hanford, it would be the external and the internal portion.

We will also in this case, because we recognize that some of the sites did not have any cases that we could review, so we were given the opportunity to go in and say this may have been -- there may be some cases that were pulled because of another PER that were already corrected for PER-14. And so if

we could find a case like that, we would use that case and do our PER-14 reevaluation.

And lastly, if there were no cases for one of the 10 sites, we were just asked to look at the technical documentation, the TBDs, any workbooks, any OTIBs that may have been created that incorporated the OTIB-52 recommendation.

So to start with our first finding on page 10. What we were just questioning whether -- the application of the selection criteria, because there were quite a few cases that were selected or that were brought out that did not clearly require a rework, because they didn't meet the requirements of the selection criteria.

And we used an example there of the Kansas City plant. There were five cases that were included in the 52 and none of these had a PC greater than the selection criteria 36.8 percent.

So our first finding has to go with, you know, were the selection criteria applied appropriately?

Now, if we go on to Finding 2, this is also a finding associated with selection criteria and the fact that we came to realize that, obviously, when you go into these files, there is a form, it is called an Individual Case Evaluation form, it's an ICE form, that is usually included in the file.

And if, as I mentioned, this case was already pulled for a PER within a reasonable time frame or a time frame where the other documentation, such as the OTIB-52 was already issued, NIOSH said we do not need to reevaluate this for PER-14, because it has already been pulled for another PER.

example, Ι into the For went database Ι just selected of the and one Hanford cases that was pulled for evaluation under PER-14 and there was an ICE form that

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was dated April of 2008 in the file. And it indicated in this form that the case was reevaluated under PER-14.

There was also a second ICE form in there that was for PER-29, which I believe we -- I thought we were going to cover. No, that's -- we are not going to talk about that today, but that has to do with TBD changes to the Hanford Site Profile.

And it indicated on PER-29 that there was no need to reevaluate the case under PER-29 because it had already been reevaluated under PER-14. And when you do a reevaluation, you use all of the most current guidance documents.

did not However, that happen several of the cases that we looked at, so we are questioning if some of these cases are not being reevaluated under all οf the PERs inadvertently because NIOSH is under the impression that it has already been looked at

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under 14, so it was being taken care of by the other PERs that were issued in a similar time frame. So that is our Finding 2.

Now, if we go into Section 3, we are going to now go into each of the 10 sites and I'll try to be brief as to what we looked at. And like I said, all reviews only are assessing the coworker dose in accordance with PER-14.

So for the first site, for Savannah River, there were initially 162 claims that were potentially impacted by OTIB-52. Only five were sent back to NIOSH. We randomly selected one and looked at what was done for the coworker model.

In this particular case, the individual works from 1952 to 1953 and he was not monitored prior to 1959. NIOSH, and you can look in our Table 3.1 and although we list everything, the only thing we really paid a lot of attention to during this review was the

external coworker dose. And you can segprevious dose was 12.862 rem and the revised dose is 13.998 rem.

In the original dose reconstruction, they broke the unmonitored period down into two different periods: 1952 to 1955 and 1956 to 1959. The first time frame they assigned a 50th percentile coworker dose model and in the second time frame they assigned a 95th percentile coworker model.

In the rework, they also broke it down into two sections, into two time periods. And for the '52 through '55, they assigned a 50th percentile construction trade worker/coworker model and they did the 95th percentile again for the '56 through the '59, same as the original.

If you go on to page 14, we also looked at the technical documents. Now, when we went into the Savannah River Site external coworker OTIB, which is OTIB-32, we realized

that the data that is in the -- the coworker data that is in that OTIB is a combination of missed and measured dose.

And if you look at the guidance in OTIB-52, the guidance specifies that you apply a correction factor of 1.4 to the measured coworker data. And so we were not -- we had asked during the review if we could get a breakdown of the missed and measured and we were not provided that while we were doing this review.

looked So we we tried to determine our missed and measured based on an equation with two unknowns and based on the -we could determine or what we from the different tables in OTIB-32, we were that the 1.4 correction does appear factor was applied to the measured dose for the construction trade workers, but we can't be sure because there is any combination of correction factors that could have been

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applied that could have given us the same results. So that's our Finding 3.

We believe they have done it correctly, but until we actually have data, the source data, we can't confirm that they applied the 1.4 to only the portion.

But with regard this Okay. to we think that NIOSH -- we particular case, agree with their assumptions. We thought that their approach was -- that it did follow the OTIB-52 and their guidance approach was claimant-favorable and appropriate.

Now, if we go on to Section 4, this is the X-10 case. In this particular case that we selected, the individual had also worked at the Y-12 and the K-25 facility. The individual was not monitored for internal or external prior to 1980. He actually worked between 1962 and 1997.

It was -- as you can see in Table

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4.1, the external coworker dose went from 30.422 rem to 13.438 rem.

In the original dose reconstruction from 1962 to 1979, a 95th percentile coworker dose was applied for all three sites. It was difficult to determine -- there was nothing in the record that you could really determine which particular site he was at.

So they did a comparison of all three sites and then they selected the highest annual dose for each of the years to assign for the original.

In the reworked dates, 1962 through 1979, and rather than using the $95^{\rm th}$ percentile value, they compared the $50^{\rm th}$ percentile values from each of the sites and assigned the highest annual dose.

We also looked at the technical documents associated with X-10, the K-25 and the Y-12. And again, in each one of those guidance documents -- for X-10 it is an OTIB-

21 that incorporates the construction trage worker data. Again, the missed and measured doses were reported as a single value and so we were not able to 100 percent confirm that the 1.4 correction factor was applied to just the measured portion.

The same with K-25 and the same with Y-12. And so that's our Finding 4. It's the same as the previous finding, Finding 3.

You will that see come in up several additional findings. And I separated them out because I assumed that perhaps this type of finding would be something that would be transferred to a specific Work Group where I didn't mean to have so many findings of the same type, but I wanted to separate out various sites that it could so the appropriate worker if that's where it ultimately ends up.

Okay. We are going to go to Section 5, which is the Portsmouth case. Here

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again, we selected -- it was 112 Portsmouth claims potentially impacted. Only four were sent back to NIOSH. We randomly selected one. It was a laborer and had to have six skin cancers.

In Table 5.2, the unmonitored external dose went from 2.495 dose -- rem to 0.909 rem.

The original assigned -- the individual actually worked for one year, 1954, and in the original he was assigned the '91 with coworker penetrating and non-penetrating dose. And in the rework, he was assigned a 50th percentile construction trade worker/coworker dose for photons only.

looked the technical We at documents associated with Portsmouth and again, the OTIB-40, which is the document that incorporates this coworker dose the to construction trade worker combines the missed and the measured into a single value. And

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again, we have the same finding under Finding 5 that applies to Portsmouth.

There was also an observation, this is our first observation at the bottom of page 21. There is -- there was supposed to be a photon dosimeter correction factor of 1.165 applied to -- well, it was applied and we are questioning whether it should have been construction applied to the entire trade worker/coworker dose, because again, this is a combination of missed and measured, so this would actually be an overestimation of dose as it was applied to both the missed and measured portion.

We have no other findings associated with the rework of this Portsmouth case.

Section 6, this is a Los Alamos National Lab case. There were initially 49 claims, but there was only one that was sent back and this was not updated. I guess we --

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the first finding here, Finding No. 6, we were questioning whether NIOSH was planning on revising this particular case because it did look to us like it was a construction trade worker that should have been updated and we weren't quite sure why this case hasn't been updated at this point in time, so that's our Finding 6.

MR. HINNEFELD: So this is Stu. I hate -- I didn't want to interrupt, but I just wanted to offer a comment. When you said the case you said here and I think you said in Finding 1 the cases were returned, but not reworked. Is that what you said?

MS. BEHLING: That's correct.

MR. HINNEFELD: Could it be that the case was on the list to be requested to get returned and didn't actually get returned? Because if it were returned and not reworked, it would be sitting in our inbox and I don't recognize cases from that year as still

sitting in our inbox to be done. 1 71 2 MS. BEHLING: Rose, I don't know if 3 you can add anything here. I don't know. not sure why it was not --4 MS. GOGLIOTTI: I believe this one 5 has an ICE file indicating that it was sent 6 7 back for PER-14, but it wasn't --8 HINNEFELD: But was the ICE MR. 9 file saying well, it is back or that it meets one of the criteria and it should be sent 10 I'm a little confused on what the ICE 11 back? 12 thing did. 13 MS. BEHLING: I'm not sure, Stu. 14 It's a good question. I can go back and look 15 at this a little further. In some cases, I did actually print out some of the ICE forms 16 17 and generally it will say on the top returned to NIOSH and it will give you the PER number 18 and say that a dose reconstruction for this, 19 20 you know, particular case was reevaluated in

accordance with the referenced PER.

doesn't always happen. 1 That ₹'n 2 fact, in my Finding No. 2, I'm looking at 3 exactly that example from the Hanford Site, but I can go back and look at this closer, 4 5 because we were just questioning whether this particular case is going to be revised or not. 6 7 MR. HINNEFELD: the claim Are 8 numbers in the report, in your report so we can find the claim number? 9 This claim number 10 MS. GOGLIOTTI: 11 is in our report. 12 MS. BEHLING: Yes, it is. 13 MS. GOGLIOTTI: I'm looking at it And it was revised in 2006, but 14 right now. 15 that's before this PER was issued. 16 MR. HINNEFELD: Mm-hmm. MS. BEHLING: Yes, the claim number 17 18 is in the report. 19 MR. HINNEFELD: Okay. We can do 20 some checking on those. Ιf the case was 21 actually returned to us, then it should have

gotten another dose reconstruction, because that's the only way we can get it out of our inbox.

It happens on occasion with a PER that we will identify a case and ask DOL to return it because it meets one of the PER criteria and they don't return it because, for instance, it meets the criteria of an SEC Class that has been added since that dose reconstruction was done.

And sadly, it happens that the died in the claimant has interim and survivor has not been identified. So those are kind of the two main categories of cases where we -- if this happens that we will ask for a case back and we don't get one back from of and when we Department Labor looked into it early on in these cases, almost always fell into of one those categories.

MS. BEHLING: Okay. We can look at

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this a little bit closer, but as I said, our first two findings did question the selection criteria and the fact that some of these were not reworked. And then again, what impact that has on other PERs that are issued around the same time and that, you know, you are under the impression that it was reworked. And inadvertently, these may not all be looked at with the most current guidance again.

MR. HINNEFELD: Okay.

MR. SIEBERT: This is Scott Siebert. Stu, I looked at this specific claim number, since it's in the report, and, yes, this is exactly the case. It was requested back and DOL did not ever return it for whatever reason.

CHAIR MUNN: Okay.

MR. HINNEFELD: Okay. Thanks, Scott.

MR. SIEBERT: Sure.

MS. BEHLING: Okay. Yes, thank

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you, Scott. Okay. And I guess you don/t follow up or you don't have any reason to follow up with DOL as to why it wasn't sent back?

MR. HINNEFELD: Early on, when we were doing this, we did, we checked up with DOL on cases we had asked for and we didn't get back. And in every case, they had an explanation of why it didn't come back. And it always fell under one of the two categories I told you.

MS. BEHLING: Okay.

after MR. HINNEFELD: And so didn't do that we anymore. We, essentially, considered it sort of а ОC DOL's work and they seemed to be doing -- you when we checked on it, everything was And then we didn't continue following every case because these were some you know, lots of numbers. You know, over the years it was a pretty big group of numbers.

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1	MS. BEHLING: Of course. 76
2	MR. SIEBERT: This is Scott again.
3	My guess would be on this one since we are
4	talking LANL, it probably qualifies as a LANL
5	SEC and they determined not to return it
6	because of that.
7	MS. GOGLIOTTI: Is there anywhere
8	that it is documented that DOL did not return
9	it?
10	MR. HINNEFELD: No, they don't tell
11	us why they don't they don't give us our
12	list back and say we didn't return these for
13	this reason. They do not do that. They just
14	of the list we send, they return the ones
15	that should be returned and if there is a
16	reason not to return it, we don't hear about
17	it.
18	MS. BEHLING: Okay. Okay. Are you
19	ready for me to continue?
20	MR. HINNEFELD: Yes, I am.
21	MS. BEHLING: All right. Okay.
	f 1

Yes, please, Kathy, 90 1 CHAIR MUNN: 2 on. 3 MS. BEHLING: All right. Thank 4 you. 5 CHAIR MUNN: Thanks. 6 MS. BEHLING: We were on Section 6 7 and as I indicated, there were no claims that 8 of the 49 that were done, specifically 9 because of being pulled for PER-14. 10 However, we were able to find one 11 that updated with the most was current 12 quidance documents that pulled for were 13 another reason. In that case, the individual worked 14 15 from November of '63 through June of '99 and dosimetry 16 then there also dated was indicated he worked -- there was -- that he 17 was monitored in 2001 and 2002. 18 19 In Table 6.1, you can see that the 20 unmonitored dose went from 1.65 rem to 2.847 21 And just an overview of the original and rem.

the rework, the original used the -- for the unmonitored period used a 50^{th} percentile that was, at the time, based on OTIB-20 and it was based on a compilation of coworker studies using a 50^{th} percentile.

In the rework, they used the coworker data only for prorated months and you can see that table or that information in Table 6.2. They went in and determined when he -- just what month he was not monitored.

modified for Ιt was а coworker it modified this dose, but was not in particular case for the construction worker -trade worker adjustment factor of 1.4.

And so our finding 7 indicates that it doesn't appear that this particular case has the 1.4 adjustment factor applied to the coworker values.

In addition, Finding 8, they do not apply a DCF or a Dosimeter Correction Factor to the coworker dose for this particular case,

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so that was another finding that we had. 79

then there is an Observation on page 26 and let's see here, okay, makes the assumption that cases returned and will be updated with the recent technical guidance. But in this particular case, the most technical the most recent guidance was not incorporated as we indicated in our previous findings.

The OTIB-52 guidance was not applied in this particular case. Okay. And that's what we were indicating in our two previous findings.

Okay. Moving on to Section 7. This is the Y-12 Plant case. Again, there were 159 potentially impacted claims and 10 were sent back. We selected one at random for an individual who worked from '44 through '72 and Table 7.1 shows the external coworker dose of 8.237 and it was revised to 19.802 rem.

In the original construction from

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1949 through 1960 and then again in 1962, 86 coworker dose was assigned and this was based on OTIB-13, which is a Y-12 dose adjustment procedure, specific, you know, for Y-12.

In the rework, the rework was done using the 50th percentile gamma coworker dose for construction trade workers from OTIB-64. We looked at the technical documents and although there were no -- we didn't find any workbooks that specifically allowed the dose reconstruction to apply to the coworker model for the construction trade workers, there is an OTIB that has been updated, OTIB-64 as I mentioned, Table 7.2, with the guidance from OTIB-62.

And lastly, for this particular case, Finding 9, there should have been a dosimeter uncertain factor applied to the construction trade worker/coworker dose and that was not applied. It is recommended that 1.3 or 30 percent uncertainty and that was not

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included in this particular dose reconstruction. Everything else was in accordance with the OTIB-52 guidance.

I'll get on to Hanford, Section 8. particular Hanford Ι In this case, as mentioned, Hanford's both external and internal dose is impacted by OTIB-52. We selected a case where the individual worked for one month in 1954 -- I'm sorry, 1943 and for nine months in 1944. This case again was selected by random.

There were two skin cancers and as you can see in Tables 8-1 and 8-2, the external dose for the one skin cancer went from 2.718 to 2.586 and in the second skin cancer it went from 2.718 rem to 2.279 rem.

An overview of the original versus the rework. The original used the 95th percentile of the coworker model for 1944, for that year only for the deep dose. It didn't consider the one month in 1943.

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did The rework partial а dose 50th reconstruction due to the SEC, but a percentile photon and electron prorated to the nine months of 1944 was calculated was neutron dose is prorated to seven months for the time period that he was in the 300 area.

Again, in this particular case, we at the guidance document, which is OTIB-30, for Hanford, and the missed measured doses are reported as a single value So the same finding as in Finding 3 4 applies to Hanford Finding that able to absolutely ensure that weren't factor applied only the measured was to portion of the dose.

The technical document review for Hanford, we -- the Hanford Best Estimate Workbook, let's see here, the TBD was updated and the Best Estimate Workbook was updated to include the OTIB-52 information. So that was taken care of for the external portion.

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Now, on the internal portion also3 the original dose reconstruction used a hypothetical internal dose, actually through OTIB-2, to maximize his internal dose.

In the rework, the Hanford TBD specifies that you should use the Battelle TBD-6000 guidance and that was done in this particular case. We were able to verify that that was done appropriately.

However, there was no, as shown in Finding 11, there was no correction factor for the construction trade worker applied to this unmonitored internal dose. So as indicated on page 34, OTIB-52 specifies that the coworker dose should be multiplied by a factor of two and that wasn't done in this case.

Also, under Finding 12, we could not find any documentation that made the change for the internal portion of the coworker dose. The technical guidance didn't reflect that.

Okay. Moving on to 9, I knew that was going to be lengthy. Section 9 is the Kansas City Plant. In this particular case, there were no cases that we could identify to evaluate. Therefore, we limited our evaluation just to the review of the technical documentation.

And as Finding 13 indicates, we could not find where the guidance from OTIB-52 was updated into any of the Kansas City Plant technical guidance documents or workbook.

Section 10 is Pantex and that is the same situation. There were no cases to evaluate, so we simply looked at the technical guidance.

And under 14, again, we were not able to find where the TBD was updated. There was a new OTIB generated or workbook included, so again, Finding 14 indicates that there -- the guidance documents were not updated to include the OTIB-52 guidance for the

construction trade workers.

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Section 11, that's Pacific Northwest National Laboratory. The individuals at this facility follow all same guidance as at the Hanford Site and so we didn't feel the need to evaluate any claims, since we had already looked at the Hanford claims, plus looked the Hanford at wetechnical guidance.

And then finally under Section 12 is the Weldon Spring Plant. Again, this is a situation where there were no cases to evaluate. Again, we looked at the technical guidance document and it doesn't appear that there has been any updating to that guidance document to reflect OTIB-52.

So in summary, we had 15 findings and we also have a third observation on page 41. First of all, although OTIB-20 is outside of the scope of this, we did take notice that correction factors and uncertainty factors,

dosimetry correction factors, as I have identified in several of the findings, were not always applied as specified in OTIB-20.

And so we just felt that maybe OTIB-20 guidance should be looked at in behalf of the three particular cases at LANL, at PGDP and at the Y-12 facility.

And then finally, the other thing that we did notice is a lot of times in the original case, and I realize it's a more maximizing approach, there was -- the 95th percentile of the coworker dose models were used.

And in the rework often they would select the $50^{\rm th}$ percentile model.

And again, the guidance in OTIB-20 seems to indicate that if it's an intermediate low level external radiation exposure, then 50th percentile applies. However, for routine exposure it's suggesting to use the 95th percentile value.

And in fact, it brings that one especially for pipefitters. And we are just thinking that maybe some clarification on -- and I don't know if you can do it by trade, but there could be some clarification maybe put into either OTIB-20 or into the specific guidance as to who should be assigned the 95th and who should be assigned the 50th.

And I know this is a discussion we have and we talk about it all the time and I know it's a professional judgment, but it's just something that came out as a result of our review of all these cases. So that's it.

CHAIR MUNN: Thank you so much for that thorough review.

MS. BEHLING: Well, I'm sorry I had to go on and on, but --

CHAIR MUNN: No, you didn't. You really had to go on and on. We can't possibly cover this many sites and this many trades without doing it, Kathy. And thanks to you

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has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable
information has been redacted as necessary. The transcript, however, has not been reviewed and
certified by the Chair of the Procedures Subcommittee for accuracy at this time. The reader should
be cautioned that this transcript is for information only and is subject to change.

and Rose for that exhaustive review. It was necessary and it's much appreciated.

MS. BEHLING: Thank you.

CHAIR MUNN: Do we have any specific questions right now or are we going to wait for NIOSH's response?

DR. MAURO: This is John. Could I make a statement about what we just heard?

CHAIR MUNN: Please do.

DR. MAURO: As I'm listening to this, I sort of listened to -- you know, you get into the weeds and you hear the fine structure of what is going on. And I always ask myself, you know, I thought I'd step back and say okay, we are collecting information on this PER process.

Now, we have been through a large, a significant number of them. And I would like just to make a statement.

I think the PER process is the single most important process next to the SEC

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that is going on in this program, in terms of Board where the can step in and make statement about the health of the program. Now, making some, Ι guess, observation.

See, what we have here is when you go to -- see, because unlike when we do a Site Profile Review, where we're in a stovepipe. You know, we are in a stovepipe. We are doing DR review, a Site Profile Review, a procedure review.

the But here are not in we. stovepipe. crossing all Here we are boundaries. We are first checking you know, we are looking at the PER from several You know, when you go to the four sub-tasks, for example, asking are we ourselves questions that go across the board.

You know, did this PER capture the sense of the concerns that were raised in some Site Profile or some procedure correctly? Did

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NIOSH then, you know, understand capture and incorporate that and then go find all of the cases, whether it's a particular site or across the boundary of many sites, as we did here?

And ask themselves the question: did we go capture all of those or did we miss something important? Did miss we any? question Another that is outside the Then we go ahead and we review stovepipe. cases where there effects is, you know, being And we ask ourselves the question well, made. did they fix it?

So in a way I'm sort of offering up to the Subcommittee the idea to treat the PER as a very special category of work being done by the Board that somehow -- now within the BRS now, we are capturing information, but I would like to offer that we should be able to go in and capture information from the BRS, with regard to PERs now, that are of a very

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lofty nature, because what it does is ġŧ. loop closes the where we get out of our stovepipe and we are crossing the boundary. The very thing that I think Dr. Melius has expressed concern about, about the work we are doing.

It just dawned on me the P -- and it may have dawned on you also. I might have been slower than the rest of you, but it just dawned on me how important this is. And I wanted to make that statement so that if you're not thinking of it that way, I think we should be thinking of it that way.

And given that when we report back to the secretary, I think this particular type of evaluation should have some primacy, because it is very important.

CHAIR MUNN: Thank you for that,

John. Some of us agree with you wholeheartedly. Some do have the view that this is the most broad type of programmatic

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that we possibly have undertaken or 1 review 2 even could undertake. And for that reason, 3 it's one of the few times that Board Members really do get down in the weeds, even more 4 5 than we do in the ordinary course of events. 6 It is much appreciated that we are 7 undertaking it in that fashion. Thanks. 8 Anyone else have anything to say before we 9 check to see about PER-17? 10 MR. MARSCHKE: Wanda, this is 11 Steve. 12 CHAIR MUNN: Yes? 13 MR. MARSCHKE: I have a question. 14 CHAIR MUNN: Yes, Steve. And thank 15 you by the way, you are a lifesaver. On this PER-16 MR. MARSCHKE: Okay. 17 14, Kathy and Rose have three observations. 18 the BRS has no ability to, you know, specify differentiate 19 observation an or20 between an observation and a finding. Ιt

basically puts in one thing.

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There is

one class of items that can be entered into

And I guess the question is how does the Subcommittee want to track the observations in the BRS as additional findings or do we not want to put the observations into the BRS? And if we don't, then we, you know, can either track them by hand or we might lose them.

So I guess the question is how do - I mean, the BRS does not differentiate
between findings and observations. So how do
you want to handle this from a BRS point of
view?

CHAIR MUNN: My personal position from the outset that observations were determined from the outset. From early we made the statement that observations appreciated. They are not necessary tracking items. They are precisely what their name is, an observation.

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It is not a finding. It does not require action. It's simply an observation with respect to whatever activity was under surveillance at the time. For that reason, my position remains that we should list them in observations, but by their very name indicated that no action is necessary or will be taken. MARSCHKE: MR. So we enter them basically as a closed finding? CHAIR MUNN: Exactly. MR. MARSCHKE: Okay. CHAIR MUNN: All right. Any other feelings? MEMBER BEACH: Wanda, this Josie. CHAIR MUNN: Yes? MEMBER BEACH: I have a comment on that, because I was going to comment earlier on the, I believe it is, observation that we

look at OTIB-20 and suggestion that we review

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1 that OTIB, that was one of the observations, 2 Is that correct, Kathy? 3 MS. BEHLING: Yes, it is. 4 MS. GOGLIOTTI: Yes. 5 In fact, Josie, you MS. BEHLING: 6 are touching on something I was just going to 7 mention. 8 I just --MEMBER BEACH: Yes, and 9 don't just to Ι want to miss that 10 observation by closing it, because I think it 11 is important that we --12 MS. BEHLING: Well, I agree. 13 MEMBER BEACH: -- follow through. 14 MS. BEHLING: Ι Yes, agree with 15 you. fact, what I was about to say is first 16 really Ι think the two observations 17 there findings are that capture observations. 18 What we struggled with was the last 19 20 observation and, in fact, we talked 21 ourselves whether should make this we а

finding because it has to do with OTIB-20, we weren't quite sure if it was appropriate to make it a finding.

However, Ι have to in say retrospect I think we should have, because it is something that came out of this review. Ιt was something based on our looking at all of these cases, it came to our attention. And so believe that that Observation 3 perhaps should have been a finding, because I also think that it is one of those it's something that should be looked into a little bit further.

CHAIR MUNN: You are correct,
Kathy. If there's anything that requires an
action, as this clearly does --

MS. BEHLING: Can I suggest this, that when we do -- when I resubmit this changing these finding numbers, that I make that observation into Finding 16 or it will become No. 22 or whatever.

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1 CHAIR MUNN: Correct. 97 MS. BEHLING: 2 Okay. 3 CHAIR MUNN: Absolutely. 4 MEMBER BEACH: That's what I was 5 going to suggest as well, so that's great. 6 CHAIR MUNN: Okay. Do you have any 7 objection to that, Paul? 8 MEMBER ZIEMER: No. In fact, 9 conceptually, Wanda, I agree with what said about observations. 10 It seems to me if 11 true observation, the burden is on NIOSH to do with it what they wish. 12 It's not 13 something that should track. Ιf it's we important for us to track it and close it, 14 15 then it should, indeed, be a finding. Any objection 16 CHAIR MUNN: Good. 17 one way or the other? If not, we will request that SC&A at their reissuance of the 14 see 18 that what is now categorized as Observation 3 19 20 becomes a finding. Any other comments? 21 MEMBER ZIEMER: This is Ziemer

again. Early there somebody on was suggested that we think about parsing these out by site, but it seems to me in the cases that we have indicated here, where there is a of problem common sort at one plant, typically, which occurs over and over again, it seems to me something like that should just stay with us here.

It's something that NIOSH can deal with sort of across the board as opposed to having each site try to deal with that same -- it's the same issue in every case. I think it just shows up in different sites.

CHAIR MUNN: Parsing out segments of a PER seems to be unwieldy administrative onset to that. It's not attractive to me.

MEMBER ZIEMER: Right.

CHAIR MUNN: Anyone have any objection to our dealing with -- or continuing to deal with the PER-14 in this Subcommittee? If there is not, we will continue to do so.

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quick question. 1 One Kathy, Id m 2 assuming -- are you going to report on PER-17? 3 MS. BEHLING: Yes, I am. And is it a lengthy 4 CHAIR MUNN: 5 report? 6 MS. BEHLING: No. 7 CHAIR MUNN: All right. That's 8 Let's anticipate that we will take a 15 minute break after Kathy completes PER-17. 9 10 MS. BEHLING: Great. 11 CHAIR MUNN: Go ahead, Kathy. 12 MS. BEHLING: Okay. One more 13 comment that I wanted to make on PER-14. Ιf like 14 from NIOSH or ORAU would anyone to 15 contact either Rose or myself with regard to 16 you some examples of cases that found under Finding 2, we would be happy to do 17 We can, you know, clarify whether that 18 that. 19 is a problem or not. 20 MR. HINNEFELD: Okay. Thanks, 21 Kathy. We are going to have to work out on

our side when and if we can get to this, so it 1 2 might not happen immediately. 3 MS. BEHLING: Okay. But thank you for 4 MR. HINNEFELD: 5 that. 6 MS. BEHLING: Okay. All 7 Again, Ι was going to try to 8 highlighted -- I was so proud of myself here. 9 I had highlighted all the key sections in PER-10 17 Sub-task 4 also and I was going to pull 11 that up on the screen, but for some reason it's not allowing me to do that. 12 13 Steve, do you happen to have PER-This was issued on April 1st, I believe, 14 15 of 2013. This is Ted. 16 MR. KATZ: Kathy, why 17 don't you just email it to Steve and he can 18 put it up?

MR. MARSCHKE: Wait a minute. I might have it. April $1^{\rm st}$, I might have it, Ted.

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1	MR. STIVER: This is John. Iive
2	got it. I can open it up here.
3	MR. KATZ: Oh, okay. I thought
4	Kathy had hers annotated or highlighted.
5	MR. STIVER: Oh, okay. Okay.
6	MR. KATZ: But no
7	MS. BEHLING: Yes, it's actually
8	fairly brief, because there are were no
9	findings on this particular one.
10	CHAIR MUNN: We like that a lot.
11	MR. STIVER: Okay. Can everybody
12	see it? I just pulled it up.
13	CHAIR MUNN: Yes, yes. It's great.
14	Thanks, Steve, or John.
15	MS. BEHLING: Yes, I'm actually
16	having trouble.
17	MR. STIVER: The other Steve.
18	CHAIR MUNN: Yes.
19	MS. BEHLING: Okay. Actually, PER-
20	17, as a reminder, is the evaluation of
21	incomplete internal dosimetry records at Idaho

INL, Argonne National Labs-East and Argonne National Labs-West. And we completed a review of PER-17 on May 15, 2012 and the report that you are looking at is our Sub-task 4 or the review of cases.

Now, initially, if you go to page 6. this PER initiated because was NIOSH identified that when they were looking at -had records they had requested internal dosimetry records and they realized when they were getting the requests back from -- or the information back from DOE, sometimes would be no internal dosimetry records and there would sometimes be handwritten notes, sometimes it would be included with the INP-004 form which is а request for personal exposure form. And it would be marked as dosimetry -- Internal Dosimetry Records not readily available or no internal or recorded dose.

And because of spotting that, which

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was very good, they assumed that perhaps there were people out there that actually had internal monitoring records and they weren't repeating them.

And that was the case. NIOSH went back and they had identified 223 cases and it ended up that there were -- once they looked all the criteria, they identified that there were 83 cases where they actually got data back from DOE regarding the internal dosimetry records for 83 different individuals.

62 of those were from the INL site,

14 were from the Argonne National Labs-West

and 6 were from Argonne National Labs-East.

We recommended that we select three cases from INL, two cases from Argonne National Labs-West and one case from Argonne National Labs-East.

We got those records. NIOSH identified those cases, those six cases and I

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went through and I'm not going to go through each of the six because I can just tell you in summary, unless you want me to go through them, but if we go to page 23 in the summary, I found that in each case NIOSH did submit a second request. DOE provided bioassay records. Those records were used to reevaluate all six claims.

I thought, you know, in some cases the data was, you know, data that was evaluating the values for the urinalysis or whatever and so I think there was one case where they maybe used that as internal, so -- but they did at least consider all of the internal records.

I agreed with their approach and their assumptions. I felt that all the cases were done in a claimant-favorable manner. And I had no findings with any of the six cases that I reviewed.

There was only one observation and

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I know this is something of a reoccurring theme, but at the very end on page 23, I do make an observation that five of the six claims, the CATI report indicated that there was bioassay data.

And, obviously, when the energy employee fills it out, you know, they will certainly know, but in some of these cases even survivors indicated that there was -- there should have been bioassay data. I'm sure when you have to bring a bottle home, you know, everyone in the family knows about it.

But I just -- it occurred to me that perhaps if they had looked at the CATI information a little bit closer, maybe they would have identified this as a problem at those particular sites a little bit earlier.

The other thing that occurred to me is I wondered if, especially for maybe best estimate cases, there couldn't be maybe like a tracking system that compared, and I know you

have enough work, but, what is in the CATTO report, did you expect to get bioassay data and did you actually get any? Maybe even just for best estimate cases.

And again, this is just an observation and I didn't think it warranted a finding. It's just something that I wanted to mention. And that's it for PER-17.

CHAIR MUNN: Thank you for those comments, especially with respect to the potential observation. It sounds all right as an observation. The question is: shall we insert it as such in the BRS?

MEMBER ZIEMER: Well, how do we know that there is no findings? Do we simply accept the report?

CHAIR MUNN: In my memory, we have had only one such and I believe we entered a statement to the effect that there were none.

Am I correct, Steve? Am I remembering something else?

1 MR. MARSCHKE: No, essentially what done, in the past, if we have a 2 have 3 document, PER-17 -- well, we already have PER-17, don't we already have it? 4 5 Yes, I think we do, CHAIR MUNN: 6 yes. 7 MR. MARSCHKE: And so some time we 8 enter a finding. We can enter a finding of no 9 finding and that's exactly what we have done. I thought that's what 10 CHAIR MUNN: we had done. 11 MARSCHKE: this 12 MR. Later 13 afternoon, we'll talk about some cases where we have actually done that just recently. 14 15 we can, you know, do it that way. Sub-task 4 was performed and the finding was no findings. 16 17 CHAIR MUNN: Yes. We could elaborate 18 MR. MARSCHKE: 19 the observation and say, you know, 20 findings, but did was no we make one 21 observation or if you wanted to -- if we want

1	to do that.
2	CHAIR MUNN: That's what I would
3	choose to do, actually.
4	MR. MARSCHKE: And then we could
5	you know, once we enter that, we could
6	immediately close it and say so there is
7	really nothing for NIOSH to do, but it is then
8	in the BRS, so it's part of the record.
9	CHAIR MUNN: It's my personal
10	position that any time we have had an effort
11	to review any of the PERs under Sub-task 4, we
12	should have a heading to that effect, so that
13	anyone who is interested in checking can find
14	years from now that this was, in fact, given
15	the appropriate review.
16	DR. MAURO: Can I jump into the
17	comment on this particular observation?
18	CHAIR MUNN: Yes.
19	DR. MAURO: I think when I review a
20	case and I see that the CATI says there were
21	data, but the DR, you know, uses some kind of

surrogate model where they did not use the data, I usually make that a finding. The reason I say that is if there is affirmative evidence by way of a CATI, yes, urine samples were collected, I would be looking for the reason why whether or not an effort was made to confirm that no -- notwithstanding the fact that the CATI says there were, we really were not able to find any.

In other words, it's almost as if you might go the extra yard when someone says, especially if it's the claimant or the person, the worker, no, I had bioassay data collected. I would be looking for some discussion of the effort made to find it.

But in this particular case for some reason they couldn't find it, it seems to me that leaves the door open a bit. And I hate to leave the door ajar in a situation like that. So all I'm saying is that I can understand, Kathy, why you would call it an

observation. 1 110 2 the same time, But at Ι can see 3 someone saying wait a minute, you know, what 4 does NIOSH do when they encounter 5 circumstance like this? 6 MR. HINNEFELD: Well, this is Stu. 7 And I'll offer up something. And somebody can 8 correct me if they want. 9 someone who worked at a DOE For 10 facility, we have one place to look for their 11 bioassay records and that's the DOE. have a point of contact for each of these 12 13 places and that's where we make our request 14 to. 15 We have done it on occasion where people would say I had bioassay and we have 16 17 made a second request and we get back the same 18 thing we got the first time, you know. 19 So you do go that extra DR. MAURO: 20 yard? I mean, that's --21 HINNEFELD: About 100 percent MR.

of the time. 1 111 2 DR. MAURO: Yes, yes. 3 MR. HINNEFELD: About 100 percent of the time we do. 4 5 DR. MAURO: Okay. 6 MR. HINNEFELD: So -- on occasion, 7 know, it's like but, you not we have 8 alternative places to look. 9 DR. MAURO: Yes. 10 HINNEFELD: You know, we ask MR. 11 the place. I guess on occasion we have asked again and it -- but the answer generally comes 12 13 back the same. I don't know of any cases where by asking again DOE kind of, you know, 14 15 thumps their forehead and said oh, wait, what was I thinking here it is. 16 17 DR. MAURO: Yes. 18 MR. HINNEFELD: It just seems to--19 you know, for whatever reason it happens that 20 people say there were in a bioassay program 21 and the DOE has no record of their bioassay.

DR. MAURO: No, and I appreciate the answer. And, you know, I guess that's what I was looking for that it is of concern, but there really is not too much you can do about it. And I understand that.

This is Stiver. MR. STIVER: there is another way to kind of alleviate some of the uncertainty in of the dose part reconstruction, just a statement in the dose reconstruction report, you know, we recognize that the claimant did indicate that they were bioassayed, but we were not able to find any record of it, although we searched various and identify where the searches took place. think that would kind of help clarify it for our reviewers certainly.

DR. MAURO: Yes, I agree with that.

A little language to that effect might be very helpful.

CHAIR MUNN: Well, that's a difficulty also simply because as was pointed

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1 out you have one source and one source only 2 and t.hat. has been contacted source with 3 respect to --4 DR. MAURO: Yes. 5 is CHAIR MUNN: -- what there. It's hard to identify what else could be done. 6 7 DR. MAURO: Yes. 8 CHAIR MUNN: But then check the 9 single source you have. DR. MAURO: 10 And that's being done. I understand it may not be done in an entire 11 consistent way, but you could see why -- you 12 13 know, someone looking back on this, I'm posing myself as a claimant, gee, he said he had it, 14 15 but, you know. I want --CHAIR MUNN: Well, he didn't say he 16 17 had it. DR. MAURO: -- I would like to get 18 19 to the issue where NIOSH is bulletproof. You

know, someone raises the question, the CATI

report, no, we are aware of that and we did

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take certain steps as we have in the past, but unfortunately, you know, the data just is not available to us, if it's out there.

MEMBER BEACH: Wanda, this is Josie. Some of those bioassays come routinely and the worker would know that, but the spouse or survivors may not know that it comes once a year or whatever the routineness is of it.

MR. STIVER: There might be a way kind of be the to just with more open then claimants and provide them all the information to where there is no confusion on their part.

CHAIR MUNN: I think they have access to most of the information.

MR. SIEBERT: This is Scott. One thing I do want to add on to what Stu said, which I agree entirely, we do request that information if there is something else in the file that indicates the person may have been monitored as well and we will request that

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Now, I'm going to back up Stu that we very rarely have gotten anything different, but, yes, pretty much to be on the safe side, we will request that information from DOE again and point to them which parts of the file where we see the information that gives us pause. So we are trying to do that due diligence.

CHAIR MUNN: I don't know what else we can do.

DR. MAURO: And that's very assuring and I'm glad to hear that.

CHAIR MUNN: Ιt the seems observation is a valid observation, but given the fact that there really is no potential action, I don't know why we should make any further effort with it than what we have here. Record it and leave it so. If we record this observation in the database, there is little else that can be done.

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1	Shall we ask Steve to identify the
2	observation in the database and let us know
3	what he said? Not necessarily a requirement
4	to do that right now on-line, given our
5	unusually difficult circumstances. Agree?
6	MEMBER BEACH: I would agree with
7	that, Wanda. This is Josie.
8	CHAIR MUNN: Good. Steve, will
9	you, please, if you would like, off-line to
10	MR. MARSCHKE: I'll see if I can
11	get back into the BRS here.
12	CHAIR MUNN: Oh, that's quite all
13	right. If you will just we don't need to
14	do it in an on-time manner.
15	MR. MARSCHKE: Okay.
16	CHAIR MUNN: We can do that
17	afterwards.
18	MR. MARSCHKE: Yes, I have a note
19	to myself to that effect, Wanda.
20	CHAIR MUNN: Good. Give me an
21	email telling me what you have done. And we

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will see if the Subcommittee Members have apy
concern with your effort and we'll just do it.
Good. No objection, we'll need to take a 15
minute break now. Right?
DR. BUCHANAN: Wanda, this is Ron
with SC&A. Are we going to discuss PER-31 or
29? I need to know whether I need to stay on
the line or not.
CHAIR MUNN: We are going to
discuss 31 has been postponed for next
time.
DR. BUCHANAN: 31 is going to be
postponed?
CHAIR MUNN: That was my
understanding. Am I correct?
MR. STIVER: That's correct. 31 is
not complete, has not been through our
internal review process and is not complete.
CHAIR MUNN: We are going to take

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DR. BUCHANAN:

up 11 in its stead.

Okay. Are we going

to discuss PER-29 this afternoon? 1 118 2 It is my expectation CHAIR MUNN: 3 that we will talk about it, but I believe what has been decided is that both of those PERs 4 5 are going to be referred to the Work Group, 6 the Hanford Work Group. Am I correct? 7 MR. STIVER: Yes. 8 KATZ: Ron, this is Ted. So MR. 9 you don't need to hang in for those. It's 10 just administrative. We are just transferring 11 those to the Hanford Work Group to look at 12 them. 13 DR. BUCHANAN: Okay. Good. I needed to know that. 14 15 CHAIR MUNN: You're very welcome. All right. 16 MR. STIVER: And before we close, 17 18 this is John. I'm going to have to step away. 19 I'm heading out to another meeting Ι 20 committed to, but when you get the PROC-44, 21 which is one of the ones I was on, while I was

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on the line, I have already spoken to Steye Marschke and I believe Steve Ostrow is on the line and Bob Barton, so I'm going to step away, but anything that might come up where we may need to weigh in, you know, we have our folks there, but I won't be able to join you.

CHAIR MUNN: Thank you, John. I appreciate that.

MR. STIVER: Okay.

CHAIR MUNN: We will address that after the break. Thanks so much. We will see you back in 15 minutes, folks, by my clock that will make it ten minutes after the half hour. Correct?

MR. HINNEFELD: Correct.

CHAIR MUNN: All righty. Bye-bye. We're off for 15.

(Whereupon, the above-entitled matter went off the record at 12:26 p.m. and resumed at 12:42 p.m.)

CHAIR MUNN: Very good. We're

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One question that I have before we take back. up the rest of our agenda, which was supposed to be -- going to be our morning agenda, is whether either of the items that we have are time-sensitive in terms of personnel, either PROC-44, PER-20 or PER-11? Do we have a time card on any of those as far as our personnel are concerned? If not, then let's try to take them PROC-44, I think NIOSH was going to in order. respond to the findings. MR. HINNEFELD: Lori, are you going to lead this or are you going to have--MS. MARION-MOSS: Yes. Wanda, this is -- we have Mike on the line. Mike, are you there, from ORAU? MR. KUBIAK: Yes, I am. will MS. MARION-MOSS: Mike be responding to PROC-44 for us.

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Good.

CHAIR MUNN:

right ahead, Mike. It's all yours.

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All right.

MR. KUBIAK: Okay. Thank ypyl Lori. My name is Mike Kubiak. I'm with the ORAU Team's SEC Group.

The ORAU Team's procedure on evaluating the SEC's Procedure-44 is already under revision and we have reviewed the -- I believe there is 10 findings total from the SC&A review. And they are all quite helpful observations.

And our position is that we can insert text into the Procedure-44 that is currently being revised to address all the observations.

I wasn't sure if you wanted to go through each one of them individually or if the Subcommittee's intention was to wait until the procedures arise?

CHAIR MUNN: If you have the revisions in-hand, then it would be nice to know at least where you are in those revisions and whether or not -- and when you anticipate

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completion.

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KUBIAK: All right. MR. Okay. in a general sense, the revision is a total rewrite. It has been underway since DCAS revised their procedure, I believe, the rewrite October of '11. And procedure it won't look at all like the current procedure does that SC&A reviewed.

We are patterning it after, both in content and in flow, the 2011 revision to the DCAS procedure. So the way of handling all the SC&A comments is essentially to insert text into the applicable sections that we are taking out of the DCAS procedure.

And the revision is underway. It has not undergone our internal review yet, so we don't have any actual published text to present. I can go through each individual item, and really all I would be saying for each of them is that we are going to insert text to resolve the SC&A comments in the

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applicable sections. They don't even have real section numbers that correlate to anything that anybody has seen, other than internal review on our side.

CHAIR MUNN: So essentially, you are going to have to give us another document, in any case, giving us responses to the specific requests that are before you with respect to the individual items on the BRS.

So without any -- we can't pass judgment on something we don't have. I guess that's what I'm saying.

MR. KUBIAK: Yes, that's the way I understood it, that if the procedure is still being revised, that often the final closure, obviously, is held off until you can review the finished product and the finished wording.

CHAIR MUNN: Do you have any concept at all time-wise?

MR. KUBIAK: Our schedule has us getting it to NIOSH for their initial review

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in June.

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CHAIR MUNN:

MR. KUBIAK: It's the schedule that I'm working toward with current resources.

In June?

CHAIR MUNN: All right. So we can anticipate that our request for NIOSH to give us feedback is going to be some time well after June.

MR. KATZ: This is Ted. Ι just want to jump in here because I have sort of a larger process question for what has occurred So I'm just trying to understand, Mike, here. maybe, Stu, I mean, when we have SC&A review this, it's not like even at that time maybe this procedure was under revision. Or was already decided to go under revision?

I'm just trying to understand why, because we had SC&A do this work and then it's all being revised. So I'm trying to understand why we had SC&A do this review at this time.

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Well, this is Styn MR. HINNEFELD: we didn't speak quess perhaps up loudly enough at the time it was selected. our procedure about SEC was revised a while have known since then that the revision of our procedure should revision to the ORAU procedure.

Now, that doesn't necessarily mean that that revision would have captured all the observations or findings that SC&A made in their review.

MR. KATZ: Yes.

MR. HINNEFELD: And so we have the additional feedback from SC&A now, based on their review of the old one. And what Mike is that considers all has said he those valuable findings and we will incorporate a response to those findings in the revision, which those particular items may not have been incorporated, you know, absent this, SC&A's review.

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So by my way of thinking here, the situation where we have a list of findings, we have said we agree with this finding and we will revise the document to incorporate it.

So, to me, it seems like all these findings can be placed in abeyance and then when the revised procedure is available, then there can be the review to determine if we adequately addressed the finding that SC&A raised.

MR. KATZ: Right. And this is Ted. And I was thinking, when I looked at a number of the findings it seemed like they were -- it was the case that, in fact, it just said, ORAU procedure wasn't yet in sync with DCAS, and that was sort of part of the nature of the finding from SC&A. And so that's why I'm just sort of raising the question.

I'm not trying to make a big deal of it. I just don't want to be in a situation where we are getting SC&A to review something

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that is in process already, because really it's more efficient then for them to wait and see what their final procedures are.

I mean, I know in a way it is more efficient for you to hear input then, but when commenting on matters that going to fix anyway because they are out of step DCAS, Ι with guess, there is some inefficiency in that.

MR. HINNEFELD: Understood.

MR. KUBIAK: This is Mike Kubiak again. I do want to support what Stu said also. There were a lot of very good comments. There were three or four of them on subjects which would have remained, you know, less thoroughly addressed in my previous revision. So there is definitely some improvements made either way.

MR. KATZ: Right. Thanks. And I understand there is some value added nonetheless. Thanks, Mike.

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Mike, we 1 CHAIR MUNN: have 2 received any information from you. We, being the Board Members, have no information from 3 I'm just seeing for the first 4 you, correct? 5 time what you have submitted. Am I correct in 6 that? 7 MR. KUBIAK: Well, yes, I believe 8 that was uploaded to your tracking system. 9 CHAIR MUNN: Right, right. It's on 10 the tracking system. 11 MR. KUBIAK: Yes. 12 CHAIR MUNN: But we have not 13 received any -- I didn't have an email notice 14 that it had been or anything of that sort, 15 right? Quite honestly, 16 MR. KUBIAK: not the one on our site that handles that, so 17 I'm probably not prepared to answer whether 18 19 there was or was not. 20 CHAIR MUNN: All right. I guess my 21 again from a procedural point concern,

view, is I suspect that what has already been said is accurate, that it is incorrect for us to continue to carry this as an open item, that we ought to be carrying it as either in abeyance or -- but in order to do that, we need to insert some kind of a statement.

And your statements are fine, but we need to say as a Subcommittee, yes, we see that those are good statements and, yes, we accept that and make our judgment as to whether it's in abeyance.

MR. KUBIAK: Well, to answer your question though, Lori did send out notice about the changes, about the responses.

CHAIR MUNN: Okay. I thought I saw Lori's email.

MR. KUBIAK: Yes.

CHAIR MUNN: But somehow I missed PROC-44.

MR. KUBIAK: Okay. It's in there.

CHAIR MUNN: Yes. Then am I the

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only one who has not read those documents 196 is this Subcommittee, like me, wanting to wait until our next meeting so that I have an opportunity to at least look at these and make some judgment as to what our statement should be and what its status should be?

MEMBER ZIEMER: This is Ziemer. I did look at these. I think they were on yesterday, at least I looked at them. And it looks to me like NIOSH has accepted all of the issues.

And I mean, basically, they are all saying we are revising this and we are going to take these issues into consideration.

CHAIR MUNN: Where they are revising them might be an issue when we identify them in our data and how we identify them in our data.

MEMBER BEACH: Yes. Wanda, this is Josie. I did review them also a couple of days ago and I think Paul is correct, they did

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show that they were going to revise the
current procedure.
There was a couple of them that had
more information on them and I would have to
go back and look at them. I wonder if NIOSH
or ORAU needs any clarification from SC&A?
CHAIR MUNN: Well, my guess is they

MEMBER BEACH: And I believe
CHAIR MUNN: probably don't
simply because they have their process under

CHAIR MUNN: -- probably don't simply because they have their process under way, but our question that is before us right now is do we carry this over to next time or do we try to make some definitive judgment about each of these findings right now?

MEMBER BEACH: I believe we should carry them over.

MEMBER ZIEMER: Yeah, I would carry them over.

CHAIR MUNN: Thank you.

MEMBER ZIEMER: I don't see

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anywhere where NIOSH has disputed the finding
and that something needs to be resolved before
they proceed.
CHAIR MUNN: I don't
MEMBER ZIEMER: I don't think
anyone disputes the findings.
CHAIR MUNN: No.
MEMBER ZIEMER: Was that your
impression?
CHAIR MUNN: That my impression
is that that is not a dispute, that our
problem now is tracking where these
corrections are going to be made and the
timing that they are going to occur and how we
should be carrying our item on the BRS. I
don't want to

MEMBER BEACH: It feels like it should --

CHAIR MUNN: -- call these open any longer than we need to, if they are, in fact, all being resolved. But unless we address

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them individually, I don't think we can 1949 that. And my preference would be that we address them individually at our next meeting and not at this one.

MR. MARSCHKE: Wanda, this is Steve.

MEMBER BEACH: I believe -- oh, go ahead.

Wanda, this MR. MARSCHKE: is just want to -- you know, I spoke, Steve. John mentioned, with John earlier morning and I, you know, was anticipating that he would be on the call, so I wasn't paying a lot of good attention, but I do know he had some reservations about the degree with which NIOSH is going to address some of these comments.

Ι think, you know, in general yes, NIOSH has agreed with the what you say, going comments and they are to make some changes the document to reflect the to

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comments or the findings, but I'm not suggethat -- you know, we get the impression from the statements that are made here that they are going the -- as far as we had anticipated or hoped that they would go.

So I would like -- you know, I would vote for putting it off until the next meeting where we can have John Mauro's, you know, direct input into the, you know, changes. Whether they are going to be changed --

CHAIR MUNN: I think that's the wise thing to do.

This is John Stiver STIVER: spoken with John and Bob have also Barton and also Steve Ostrow about this. it becomes a question of the degree to which, know, the intent of the finding actually incorporated be into the new revision. And, you know, until we see that, they really don't have any basis for passing

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judgment. 1 135 2 based on You know, say that we 3 these statements that are in the BRS, it does look like there 4 may be not quite what 5 really expected, but we can't tell the final 6 product. 7 CHAIR MUNN: All right. 8 MEMBER BEACH: Well, Wanda, this is 9 I was going to say that this needs to Josie. 10 go in abeyance until SC&A has the -- is able 11 re-review the latest document that ORAU 12 releases. 13 CHAIR MUNN: Well, there is no 14 document. 15 MR. HINNEFELD: Do you want to put it in abeyance or in progress? 16 17 CHAIR MUNN: Well, we wanted to --18 MEMBER ZIEMER: Can I comment on that? 19 20 Yes, please. CHAIR MUNN: 21 MEMBER ZIEMER: Yes. Ι think

usually when we go in abeyance, we have agreed to what the final thing is going to look like and it just has to be incorporated.

CHAIR MUNN: Oh.

MEMBER ZIEMER: I don't think we know, at this point, what the final thing is going to look like. So I would keep it in progress.

CHAIR MUNN: We do not even know yet unless we group -- unless we make the decision right now to do that, we don't even know that each of these needs to be in progress. And that's what I -- that's why I'm requesting a possibility to --

MR. STIVER: Oh, keep them open.

CHAIR MUNN: -- postpone it until next time, with a minimum of 30 minutes applied to it next time, probably more than that, so that we can look at each of these and make the assessment. I anticipate they will all be in progress, but we don't know that

unless we make the decision now.

MEMBER ZIEMER: I'm okay with that.

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This is Ziemer.

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MEMBER BEACH: I'm okay with that also.

CHAIR MUNN: Yes. Someone was trying to say something?

MR. KATZ: Oh, this is Ted. I'm just a little bit baffled by this conversation just because we have Mike on the phone, and indicated that he who has brief John his Stiver and others about issue and they in the concerns, and are process revising the document. And rather than come out then with a document where you would see whether they addressed the concerns fully or not, why not now have a discussion of those issues that John indicated to John Stiver he has some concern about the depth to which the response is going?

Why not have that discussion now,

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so that Mike and his team can do a complete job on the revision, rather than having them produce something that maybe doesn't address all the points to the depth that SC&A's concerns reach?

CHAIR MUNN: Excellent point, Ted.

Does anyone have any objection to undertaking

PROC-44 today?

MR. STIVER: This is John Stiver.

CHAIR MUNN: I would have preferred to postpone it until next time, but that's all right. It's not necessary. If we need to do that, we can do that.

MR. STIVER: Well, this is John Stiver and, you know, I've got to tell you, like Steve, I have talked to John and I don't feel like I'm in a position to be able to speak for him. He had some fairly detailed things that he wanted to talk about. And so I would prefer to wait on this.

MR. MARSCHKE: Maybe we could --

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this is Steve again. Sorry for interrupting you, John, but maybe we can get John to write down his concerns and we can get them to NIOSH and get them to Mike, not waiting until we have the next meeting, but --

MR. STIVER: Right. We could --

MR. MARSCHKE: -- try to get that to him in a more timely fashion. It's really unfortunate that John had this commitment that he had to get to, but --

MR. STIVER: That would be the best way to do it, I think, would be to -- I wouldn't want to go ahead and make pronouncements that were a little off base from what John had really intended.

MR. KATZ: And that's fine. This is Ted. And I don't mean to be too tart about this, but, I mean, we do schedule these well in advance and John Mauro knows when they are and he knows the agenda item, so, I mean, I'm not that tolerant of the idea of just putting

it off for another two months.

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So I think that is a good idea to John send, if he has more elaborate that are captured in the concerns review, by all means send those to DCAS, that they can, you know, do their revisions, fully in one piece, rather having to sort of wait and be delayed this.

CHAIR MUNN: Can we agree we will have off-line communications and that we will address this entire issue of PROC-44, each individual one, next time we meet? Is this a major inconvenience to you, Mike?

MR. KUBIAK: No, ma'am, not at all.

No. I would be -- by that time, I think, we would have draft text that would have been run by DCAS --

CHAIR MUNN: And you could have had some communication with our contractor with regard to some specific concerns that they

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1 have regarding your current responses. 141 MR. KUBIAK: Right. 2 I suspect that 3 is the most efficient use of your time, for 4 sure. 5 Wanda, MS. MARION-MOSS: this is 6 Lori. Let me ask this. Will John be putting 7 his concerns in the BRS, or all this will take 8 place off-line? 9 CHAIR MUNN: It was my expectation that it would take place off-line. 10 11 MS. MARION-MOSS: Okay. 12 CHAIR MUNN: All right? 13 Yes, well, actually, let MR. KATZ: 14 me just -- I think it could be in a memo from 15 SC&A. I mean, we do these written content and when we have review concerns, so it definitely 16 doesn't need to be in a teleconference or 17 18 whatever. It can just be an email from John with whatever elaboration he didn't make in 19 20 the review itself. 21 MR. KUBIAK: Okay. I'll get off-

line with John and indicate what he needs 1 to 1 2 do and he will put together --3 MR. KATZ: Okay. with 4 MR. KUBIAK: memo 5 particular detailed items highlighted. We will anticipate a 6 CHAIR MUNN: 7 significant time block at our next meeting for 8 PROC-44. 9 question The next is PER-20, 10 status update. And, Kathy, are you on-line 11 and are you up for this? 12 MS. BEHLING: Yes, I'm on-line. brief 13 will be because PER-20 is the Blockson TBD review. 14 And we were assigned two 15 cases that we are going to evaluate under Sub-16 4, the one case that was assigned 17 actually was not revised and so I requested 18 that we get another case, which we did. I have just really started on that 19

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review, but I will certainly have it ready for

the next meeting.

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1 CHAIR MUNN: Very good. That15 2 And that brings us to PER-11 and that great. should be an extensive review, as I understand 3 And are we ready for that, John? 4 5 MR. STIVER: Yes, we are. Kathy, I 6 believe is going to lead the show on that. 7 CHAIR MUNN: Okay. 8 MS. BEHLING: Yes. I'11 try. 9 Again, PER-11 was just sent to you yesterday. 10 We worked to try to get this out. We were 11 still going through some peer review process. And again, Rose did the initial review and, 12 13 Rose, are you still on the line? 14 MS. GOGLIOTTI: Yes, I am. 15 MS. BEHLING: Okay. And John and I again did the peer review, but I'll try to go 16 through this as, you know, best I can. 17 have five findings, but let's start. 18 19 If we pull it up and we look at 20 page 8 -- let me see, did I jump ahead? No, 21 page 8 is fine.

PER-11 has to do with the K-25 Site and changes that had been the made orintroduced into the issuance, I guess, of the which is TKBS-0009-6. external dose TBD, There were also two OTIBs that affected this particular site. And so all of those were incorporated into PER-11. of the Some changes, it was written, were going to be an increase in the dose and others were going to decrease dose. And so it -- let me, first of all, just give you a chronology of what happened here. First of all, in November 24, 2004, was the issuance of the external dose section of the K - 25TBD. There was no external coworker model included in the K-25, in this TBD. On May 31, 2005 --MS. GOGLIOTTI: Kathy, can I stop you? MS. BEHLING: Okay.

GOGLIOTTI:

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coworker model. 1 145 2 BEHLING: There was? MS. Okay. 3 I'm sorry. And I see that -- that we 4 make a change here. There 5 coworker model included. Okay. We have a 6 wrong word here. 7 31, 2005, OTIB-26 On May was 8 issued, which actually replaced the coworker 9 quidance in the external dose TBD. And it added a dose to account for the missed portion 10 of the external dose. 11 And in July 29, 2005, OTIB-26 was 12 13 revised and some of that missed dose was they reduced some of the missed dose that was 14 15 added in the original TBD-26. 15, 2006, there 16 November 17 another change made to OTIB-26 and this change 18 incorporated the construction trade worker quidance from OTIB-52. 19 20 In looking at this PER, the PER was

fairly vague as to what to expect,

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so what

Rose did is she went in and she $made_{14}$ @ comparison, a yearly comparison of all of the key penetrating dose models and -- for the 95th percentile and for the 50th percentile. And you see those in the year 2-1 and 2-2.

Also, because coworker dose is dependent on the length of employment, the time of employment, cancer location and job description, she looked at the annual percent change between historical and the current coworker guidance documents. And that you can see depicted in Figure 2-3 and 2-4.

Table 2-1 also -- and all of this data is included in Appendices A through C. A summary is provided for you in Table 2-1. And what that is showing is that on average the coworker dose that was calculated using the original TBD underestimates the coworker dose calculated by our most current method in OTIB-26.

Historically, however, if we go on

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to page 11, the shallow dose overestimated the coworker dose, except for a few years. However, for the 50th percentile, for the non-penetrating. However, the 50th percentile for the penetrating dose was overestimated. So one just about cancels the other out. And so it can become an issue.

If we move on then to Section 2.2, we had to look at two different sets of data just for the coworker data and then the second set of data that we looked at was for the construction trade worker.

And again, the construction trade are supposed to receive greater than the measured coworker dose. also went in and made comparison historic between the and the current is procedures and that data included in Appendix D and it's summarized in Table 2.2.

And basically what Table 2.2 is telling us is that the historic coworker

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models underestimate the construction trade worker/coworker dose during most -- for most of the years prior to 1975.

And if we go on to Section 3, this is 2, which is Sub-task looking the and the methods to take it for corrective action. Listed there are three sets of criteria. Obviously, the claim has to be from employment at the K-25 Site.

The claims were completed between the date of the initial coworker model, which is November 24, 2004, and the date of the issuance of the OTIB-52, which is August 31, 2006. And that the claim had a PoC of less than 50 percent.

Initially, there were 432 cases that were identified that were potentially impacted by these changes. And I guess the first question that we had is, or the first finding, and this is conditional because when we started to look at the data, just a random

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search, we again identified some cases that were completed prior to the issuance of the TBD, where there was unmonitored dose assigned and in some cases where was ambient external dose assigned.

Now, Ι realize that this finding that was also identified when we did initial review of PER-11. And it was closed based on NIOSH's statement that unmonitored dose for claimants that they felt needed to have coworker dose model, they held those cases and they were pending a coworker dose model.

glance, However, just at а you know, randomly selecting some of these cases, we just wanted to verify that, because we were just questioning -- what we would really like to know is what was the methods that NIOSH monitored in calculating those dose? Perhaps they are overestimates and it will satisfy our question.

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Perhaps also there were some ambient dose that was identified -- that was just listed because -- that they should have been assigned a construction trade worker/coworker model.

So we are trying to get a better understanding of those cases that were done before the issuance of the K-25 coworker model.

Let's see here. There was also -let me see here, okay, that answers that.

That was that particular one. We were also
questioning -- oh, the end date of August 31,

2006, there is a gap between the issuance of
OTIB-52 and the issuance of OTIB-26. And that
gap is a several month period between August
and November of 2006.

And we are just wondering if the dose reconstructor actually did know that OTIB-52 was out there and applied the construction trade worker correction factor to

those particular cases. And there may not_1b_f many cases involved in this.

We did look at a few cases and we realize that, again, the missed measured dose was combined for the and SO cases that we looked at, although the question factor applied, it really was was an overestimate of the dose because it was applied to both the missed and the measured portion of the coworker dose.

Okay. And going on to Section 4, Sub-task 3. Okay. NIOSH requested a return for the following two reasons: On page 15, claims that were completed before May 21, 2005 using an external coworker model, and claims between May 21, 2005 and August 31, 2006.

Our second finding here is there is some date inconsistency. There is a 10-day -- let's see here, the selection date is 10 days prior to the issuance of OTIB-26. And maybe this was just an administrative oversight,

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maybe there were no cases listed, but we just thought that NIOSH should further investigate to be sure no cases were evaluated between that 10-day window.

Moving on then to --

MS. GOGLIOTTI: Kathy?

MS. BEHLING: Yes?

MS. GOGLIOTTI: Also we requested clarification in that, because it lists the completion date, but there is no -- we are not sure what the completion date is in the case.

MS. BEHLING: That's correct. Yes. Yeah, when we look at a dose reconstruction identifies several dates. the cover reconstruction completion There is а dose I think, in fact, now it may be called date. a calculation completion date. There peer review completion date and then there is a dose reconstruction approved date.

And so I guess this has brought to mind what does NIOSH consider the completion

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date? To us, it would seem like it would $_1$ by the calculation date, but we really need clarification on that. Okay.

Now, if we move on to page 16, Finding 3, we were not sure, because it wasn't specified as to what the methodology was used to identify the construction trade workers in this particular case.

We assume that they used the same criteria PER-14. it as However, wasn't specified and we just wanted to verify that they did use this keyword search 31 different job types, because it wasn't specified in PER-11.

Now, if we move on to Section 4.2, you can see there were -- of the 432 claims that were potentially impacted, there were 94 that were returned to NIOSH. And here, again, we are going to get into some confusion from our part as to 69 of the claims were reworked of those 94, and 25 were marked -- they were

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not revised and there was no documentation 1 ± 10 those 25 claims indicating that they weren't revised. So that was one issue.

And again, we are going to go back to the same issue that we had on PER-14 where we're wondering if, for the cases that were returned but not reworked, there was data in the file.

I have found an example again where there was an ICE memo for PERs stating that the dose reconstruction was completed and it was reevaluated under PER-11. And that was not an accurate statement, because the dose reconstruction had not, at least as of the last time we looked at it, which is a few days ago, been revised.

And there was also an ICE memo for PER-14 which indicated no evaluation was performed, because the claim was returned for another request, for another PER.

So again, we are questioning

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whether -- since it's not being revised under PER-14 PER-11, is it not being revised under PER-14 either? And there may be some cases that are falling through the cracks and not, at least, being revised using most current documentation. And that was the same finding as we had in PER-14.

We went on and because we thought there were -- we were surprised by how few cases were actually returned. We went in and conducted our own screening and we did the keyword search and we identified 162 claims and within that subset -- or within those 162 claims, we realized that a subset of 73 indicated that no return was necessary.

We selected seven of those cases and looked at them and you can see the breakdown. Two of the cases were construction trade workers were monitored and no dose was assigned. And in one case, the construction trade worker was not monitored and no coworker

dose was assigned.

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the Tn two cases, construction trade worker was unmonitored and assigned for K-25.coworker dose And in two other cases, again, they were employed at other Oak Ridge facilities and they were assigned coworker dose.

So, from that, thought that we those four cases should have been revised and questioning, again, based that on evaluation, why they were considered that they didn't that no return was necessary. Perhaps PER-11, because it was somewhat vaque, there was more restrictive selection criteria used that wasn't documented, but we just thought that that should be looked into further.

And finally, as we indicated, there were 69 cases that were reworked on behalf of PER-11. However, we are recommending, at this time, that it may be premature to select any

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cases or to even recommend selecting any cases until we resolve these findings.

Also, based on our questions, we are just wondering if there might be more than 69 cases involved in the -- that needed to be reworked under PER-11, and so that may change our recommendation as to how many cases should be reviewed under the Sub-task 4.

At this point, if the 69 claims stands, we are recommending that we look at maybe two claims for external coworker model and two claims associated with the construction trade worker cases. And that sums up PER-11.

CHAIR MUNN: Thank you very much, Kathy.

MS. BEHLING: Rose, do you have anything else to add?

MS. GOGLIOTTI: No.

MS. BEHLING: Okay.

CHAIR MUNN: Very good. Is there -

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do we want to undertake discussion of this? 1 2 Is our discussion going to take long? Is 3 everyone there starving to death? MR. HINNEFELD: Wanda, this Stu. 4 5 think we would be pretty handicapped in having any discussion about this. 6 We just received 7 it yesterday --8 CHAIR MUNN: I would think so. So 9 that's one of the reasons why --10 HINNEFELD: have MR. and we nothing to offer. 11 12 CHAIR MUNN: I'm asking the 13 question, because it doesn't seem to me that discussion can go very far until you've had an 14 15 opportunity to absorb this. Right. 16 MR. HINNEFELD: We have to take the findings under advisement 17 what we can learn about this. 18 19 CHAIR MUNN: It was only scanned 20 here, I'll tell you, and not really absorbed. 21 I have to go back and do that.

MR. STIVER: Yeah, this is Johng This was our intent, really, today, given the short notice, was to give it an overall presentation.

CHAIR MUNN: Yes.

MR. STIVER: With the understanding it would take some time for it to be absorbed.

CHAIR MUNN: I appreciate that. Is the Subcommittee happy with the premise that we will have this on our calendar for next time and that, in the interim, both NIOSH and ourselves will have an opportunity to observe this a little better and formulate our positions with respect to the recommendations?

MEMBER ZIEMER: Wanda, this Definitely, NIOSH needs look and respond. think there is I interesting findings here that we need learn a little more about at least.

MEMBER BEACH: I agree with that.

CHAIR MUNN: Yes.

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1	MEMBER BEACH: This is Josie. 160
2	CHAIR MUNN: Good. Then that being
3	the case
4	MR. SIEBERT: Hey, Wanda, I'm
5	sorry.
6	CHAIR MUNN: Yes?
7	MR. SIEBERT: This is Scott
8	Siebert. I just had a quick question for
9	SC&A. When I look through this, I don't see
10	claim numbers associated with, like, those two
11	cases where a coworker was monitored and no
12	coworker was assigned, things like that. Is
13	that available or I'm just missing it because
14	I'm going through this quickly?
15	MS. GOGLIOTTI: They are not in
16	here, but we can provide them.
17	MR. SIEBERT: That would be key for
18	us addressing this. Thank you.
19	MEMBER ZIEMER: Well, they were
20	redacted. I think they weren't they in the
21	original? The top one I'm looking at is

redacted. 1 161 2 MS. GOGLIOTTI: Some were redacted 3 and we omitted some. 4 MS. BEHLING: Yeah, SO we can 5 provide those ${ t ID}$ numbers, yes. The other 6 thing I was going to ask is would you like for 7 me to resubmit this changing -- I guess we 8 will want to change the finding numbers. And 9 sure, Steve, do you know how many I'm not 10 findings there were on the -- oh, no, no, I'm I'm ahead of myself. This is not Sub-11 This is the original. 12 task 4. Never mind. 13 CHAIR MUNN: Yes. Okay. Good. So the finding numbers you have are going to be 14 the finding numbers we see on the BRS. 15 16 MS. BEHLING: Yes. Okay, sorry. CHAIR MUNN: That's all 17 quite Are we good to go, then? 18 right. If so, I suggest you all take 45 minutes to have lunch. 19 And we will meet back here again at 15 minutes 20 21 after the hour, right?

MR. STIVER: Sounds good. 1 162 2 CHAIR MUNN: Is that agreeable? 3 MR. STIVER: Yes. CHAIR MUNN: Thank you. We will see 4 5 you at, I guess, 1:15 your time. Right? Good. All right. 6 7 (Whereupon, the above-entitled 8 matter went off the record at 1:26 p.m. resumed at 2:15 p.m.) 9

A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N 163 2:15 p.m.

CHAIR MUNN: Very good. Picking up with our Subcommittee Procedures agenda with our after lunch schedule. The first item being Draft Review of RPRT-0053. Who is taking the lead on this, John?

MR. STIVER: Steve, do you want to go ahead and --

MR. MARSCHKE: I'll put the thing up. Let's see, we just issued this draft report. When was it? It was a couple of days ago. And it has been -- you can see by the list of authors, it has been quite a joint effort and it has been quite a while getting this thing out.

And we did have -- you know, basically what this is, it's the -- NIOSH has proposed in 053 a methodology for splitting the universe of bioassay results into two strata, and only two strata.

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And so what we did was we did a review primarily on RPRT-53, but in order to get some additional insight into, you know, how it is going to be used and its impacts, we also looked at RPRT-55, -56 and -58 to see how NIOSH is applying RPRT-53.

One of the significant changes from the old methodology, in addition to basically sample into stratifying the two strata, another significant change is the concept of the one-person-one-sample statistic whereas in incorporations of this previous coworker model, we basically were based upon the full spectrum of bioassay results.

And what it did was it took everybody's bioassay results for that year and piled them all up into one distribution, lognormal distribution. What they have, NIOSH, now has proposed to do is this concept of one-person-one-sample. And so, in any one year, any one person is represented by only one

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sample and that way you get more of an equal weighting between workers, I guess. I think that's the concept, anyway.

And so those are really the two significant areas of change that were, you know, incorporated in this RPRT-53.

And I think I'm going to pass it off. If Harry is on the phone, I think I'm going to pass it, because a lot of these where you're talking about the statistics are not in my area of expertise. And I would feel more comfortable if Harry, if you are on the phone, when we get into talking about these different findings, particularly Finding 1 where we talk about the R-squared for the ROS does not have the usual interpretation.

Well, I don't -- I'm not the one to talk about that, let's put it that way.

DR. CHMELYNSKI: Yes, I'm here, Steve.

MR. MARSCHKE: Could you pick up

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Harry, and carry the ball here and 1 for me, 2 correct anything that I've said wrong so far? 3 DR. CHMELYNSKI: I don't problems with what you said so far. 4 5 pick up with Finding 1. 6 MR. MARSCHKE: Okay. 7 DR. CHMELYNSKI: As you suggested. 8 MR. MARSCHKE: Well, before you 9 just pick up, Harry, let me say one other 10 thing. for administrative Just а point 11 detail, we have not uploaded these findings into the BRS at this point in time. 12 Now that the document has been issued, we will do that 13 probably in the next day or so. 14 15 CHAIR MUNN: Yeah, that's good. Thanks very much, Steve, I appreciate 16 Thanks. 17 your populating it for us. Thanks 18 MR. MARSCHKE: Okay. Harry, it's 19 all yours. 20 DR. CHMELYNSKI: Great. Thanks. The first finding has to do with regression on 21

order statistics. And our concern there $_{1}$ $\dot{\mathfrak{g}}$ basically with the words statistics.

These are order statistics. We take the data and we put them in order and it's well-known that once you do that, these data are auto-correlated and heteroskedastic. In particular, the min and the max have higher variances and as you go closer to the middle, the variances get lower.

Unfortunately, this procedure has become quite popular, not just with NIOSH, but I don't think people thought much about how do you decide whether ROS gives you a good fit. We are told what the R-square is. R-square doesn't mean anything really here because they are so auto-correlated.

In other words, if you go to the right and you look at the next data point, it's always higher than the one on the left.

And we know that isn't happening in regular regression.

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We also can't use the t-statistices which would tell us something about how well we know the parameters. So what I'm wondering is how do we know whether we have a good fit with the ROS procedure?

everything And Ι said far doesn't even introduce the question of nondetects. soon as you bring those in, As becomes even more complicated as to what the R-squared means and whether we have estimated coefficient for the GM and the GSB So that's our discussion on ROS. properly.

The second statistical problem that we see is the use of a hypothesis test with a high confidence level of 95 percent, when testing the hypothesis that there is no difference between the two groups.

In retrospective kind of analyses, like we are doing here, just knowing that we are using a powerful test doesn't really tell us how powerful it is. The problem is that

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the real power of the test depends on the variability of the data and the sample sizes that are available.

When we looked at this question, for example, looking at the neptunium data from SRS for the coworkers and the -- I'm sorry, for the construction workers and the other workers, some of the comparisons are done with sample sizes as small as maybe a handful, 10, 15, with the construction worker data. And a lot of those sometime are non-detects.

So what we did was do some simulation to see how powerful this test would be and really the question here is how far apart do they have to be before the tests will say they are different?

And we did some simulation work that says, well, maybe if they are a factor of four apart, we might be able to see the difference. In some cases, it might require

something as high as a factor of 10 before the test will show us any significant difference.

Now, that doesn't seem to be a very powerful test, in our view, and we would like to see some calculations as to what is the power when this is applied. In LO-53, we are about the methodology, would like to these two issues see on is discussion of how do we measure the goodness of fit for ROS and how do we measure the power of the hypothesis test?

And I would like to see some discussion of that in the report and some instructions for exactly how large a sample is needed to detect the kind of differences we are looking for.

Now, that brings up another question, which is how big of a difference are we looking for? NIOSH has decided to, what I think, turn the cart around and put the horse in the back. They say we have to look for

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significant differences and when we $w_{\frac{1}{2},\frac{1}{2}}$ decide whether they mean anything.

Well, you really can't tell whether you have any significant differences unless you decide what difference it is that you are trying to look for.

So I think you really have to design the problem from the beginning, saying I have two populations; I want to know whether they are a factor of two apart or a factor of three apart and then say, well, what sample would I need to do that?

And if you do it that way, you'll probably find out you're going to need, like it says in the report, at least 30, maybe more. It depends on the variability. And I guess that's it for our statistical questions.

The final topic, I think, that Steve has already introduced, is the idea of OPOS, O-P-O-S. And since I'm a statistician, I think about the statistical aspects of OPOS,

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but there is a lot more thinking here in terms of the modeling and the exposures that have to be considered.

So all I can say is, well, let's remember that the last S there doesn't really mean sample. It means a sample statistic. And again, since it's a statistic, it has uncertainty and a lot of times what we call an OPOS is really just an average of a single value. Other times it might be an average of 20 values.

of them Some are known very imprecisely. Some of them are known better. That's all ignored when we put them under So we would like to see again regression. in a sense, for exactly what some rules, the sample size you need to get at the oneperson-one-sample approach. And do those sample sizes have to be similar within the group and across groups?

And I guess I'll leave it there,

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because I think OPOS is a conversation that; really, health physicists should have, rather than a statistician. So are there any questions?

CHAIR MUNN: I think we are all stunned.

MR. MARSCHKE: We did look into some, just to pick up on what Harry said, we did look into some OPOS and we did -- I think we mentioned at one of the previous meetings that we were going to try and run some -- make some IMBA runs. I-M-B-A --

CHAIR MUNN: Yes.

MR. MARSCHKE: -- runs with OPOS and compare some OPOS/IMBA runs to some IMBA runs that were made with actual measurements for actual cases. And we did that but we decided not to put that into this report, because we thought it was just tangential to the problem and it would just, basically, maybe confuse or distract people from really

1 the focus of RPRT-53.

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So I can, you know, give you a summary of what I thought were the pertinent points from that little study that we did, but again, like I said, we decided that, you know, it was really tangential to RPRT-53 and we decided that we should not put it into this report.

CHAIR MUNN: Well, I personally would like to hear it. I don't know what Josie and Paul feel, but I would like to hear your take.

MR. MARSCHKE: My take is that, in most cases, when you average all the sample data that you have, or the various samples that you have, in the half or dozen or so cases that we looked at, in most of those cases, the OPOS resulted in larger intake.

Let me see, let me back up.

CHAIR MUNN: How significantly

larger?

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MR. MARSCHKE: Not terrib_{ly} significant. Let me back up. What we did was we looked at actual sample data and we took some cases that NIOSH had actually performed the IMBA runs on and then we calculated an equivalent OPOS for that data and re-ran IMBA and compared the continuous intake rate that was calculated from the OPOS to the continuous intake rate that was calculated in the NIOSH actual claimant run. And you did it on five CHAIR MUNN: or six? And we had five or MR. MARSCHKE: six of those, yes. CHAIR MUNN: Yes, okay. MR. MARSCHKE: And in most cases, with say, the OPOS came up continuous intake than the actual data did. And I think it has to do with the way its curve fitting, because it actually

doesn't do -- I don't know it does its curve

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This transcript of the Advisory Board on Radiation and Worker Health, Procedur	es Subcommittee,
has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and pe	ersonally identifiable
information has been redacted as necessary. The transcript, however, has not l	been reviewed and
certified by the Chair of the Procedures Subcommittee for accuracy at this time.	The reader should
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fitting.

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I mean, I don't think it really tries to fit the curve because it factors in biological responses as well. So the IMBA results do not really -- when you compare the IMBA results from an actual case, they do not track the actual bioassay data all that well. Let's put it that way, I guess.

Steve, I know Joyce STIVER: MR. had had regarding the some concerns OPOS methodology and some of the situations that might arise, like when you have a radionuclide that is a relatively long-lived or retained for long periods of time in the body and yet may -- you may have situations where you have incident-related short-term intake as opposed to a continuous intake.

CHAIR MUNN: I'm sorry, I didn't hear that last part of your sentence, John. Your voice is getting very soft.

MR. STIVER: I'm sorry. I am still

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recovering from laryngitis that I had a few months ago. I don't know if I'm going to ever get my voice all the way back.

CHAIR MUNN: I'm sorry to hear that. We don't want to push you, but maybe just a little closer to the microphone.

MR. STIVER: Yes, I'll just try to get a little bit closer to the mic. Joyce, are you out there, at this point?

DR. LIPSZTEIN: Yes, I am. I am. The problem with the OPOS is that there is no real definition, because the OPOS is that if a worker had a lot of bioassay results, then one way that NIOSH proposes to deal with it is to those bioassay results, it accident because was related to an a special procedure that there was they had to follow, but this worker had a lot of bioassay results and what NIOSH says is it is being put together with the data from the other workers that have just one result.

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on the coworker model because the coworker model uses the data from many workers. So if you have one worker that had an accident and has a lot of high results and the other workers don't have this problem, when you put all the results together in this same lognormal distribution, then all those results are going to distort the curve, which is true.

So before the idea of the OPOS and the coworker model, what NIOSH used to do when there was a case of an accident, they would take all the data off and wouldn't consider it.

So this time, we say, now we are going to take all the data from this worker, but we are going to use just one result for this worker, which would be the maximum possible result for this worker.

The problem that I see with it is that you -- NIOSH doesn't really define the

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interval of time they are going to apply the 1 2 OPOS. Is this just for that accident, just 3 the results that are around this accident or are they going to apply it for the whole year 4 5 or for a quarter of a year? It doesn't say 6 what is the period of time. 7 And then there other are some 8 documents that use the 53 results, like when 9 they are applying it to --10 Are you still there, CHAIR MUNN: 11 Joyce? 12 DR. LIPSZTEIN: Yes, yes. Can you 13 hear me? Oh, I thought you were 14 CHAIR MUNN: 15 breaking up. I heard -- after 53, I lost you. I don't know whether other people did. 16 17 DR. LIPSZTEIN: Oh, I'm sorry. Where did you lose me? 18 19 just CHAIR MUNN: Yes, you had 20 finished emphasizing that no period of

had been identified and --

1	DR. LIPSZTEIN: Exactly. 180
2	CHAIR MUNN: you started to say
3	something else, something further and I lost
4	you.
5	DR. LIPSZTEIN: Ah, oh, okay.
6	CHAIR MUNN: Did anyone else lose
7	her? Was it her phone or was it mine?
8	MR. STIVER: I think it was her
9	phone. This is John. I had her cut out as
10	well.
11	CHAIR MUNN: Oh, okay. Good.
12	DR. LIPSZTEIN: Oh, okay. I'm
13	sorry.
14	CHAIR MUNN: That's quite all
15	right. It's not you. It's your phone.
16	DR. LIPSZTEIN: Okay. So I'm
17	repeating it.
18	CHAIR MUNN: That's fine.
19	DR. LIPSZTEIN: Please interrupt me
20	if I'm going too fast or if you can't hear me.
21	So there was some applications of 53 that we

saw. For example, it was applied for neptunium at Savannah River Site. And the interval that was used was one year for all the workers. So what happens?

If the idea is one result for the worker, so if you have one year, suppose you have worker that has like routine one monitoring result, but it's And very low. then he has another result two months after and it's very low. And then he has the high number of results related to some special task that he was doing.

And then, again, maybe he was monitored again and had a low result. Let's suppose that it was a nuclide that was very fast released from his body. So he will have, after those high results, he'll low results again.

So when you take the mean for all those results, the small ones, together with this very big one to represent the accident,

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but when representing the intake of the worker, his intake is distorted. You don't see the time pattern of the intake and what happened.

And if you had, you know, many workers that had the same pattern as him, everyone on the same month, you don't see that when you do just one result for the whole year. Essentially, you don't see that, for example, in the month of -- though there was something that made the intakes, there was some special work that made the workers have the high results.

Then comparing you were one distribution of workers with another distribution of the workers. And other distribution of workers may not have had that kind of accident or may -- he just had this other group of workers that just had routine intakes and so just had routine results.

And then maybe when you compare the

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distribution because you reduce that then 159 just one result mixed with routine results, then when you compare the two groups, the two groups might give similar results like if there were two identical group of workers. And in reality, it wasn't.

So the problem is that it distorts and I think it needs more work on this.

CHAIR MUNN: Thank you, Joyce. think, captures pretty That, Ι well any this concerns that one might have with particular type of approach.

The question that rises to mind when thinking about this is the one that I have already broached with Steve and don't have an answer to, which is how significant do these variances turn out to be in the real world? We can imagine all kinds of things that would make them either very small or very large. But I still don't have a feel in my own mind of how seriously affected the end

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results is by this kind of statistical analysis.

And, so far, I haven't heard anyone tell me that.

MR. It's MARSCHKE: very difficult question to respond to, because it's dependent very upon the radionuclide that is in question. As Joyce mentioned, how long it stays in the body and so on and so forth. And it also depends upon, you know, the number of people that you have in your sample and how many samples they have and, like Joyce mentioned, whether or not you would have people in there that have experience with, you know, accident samples, post-accident sampling.

So it's very much dependent upon the problem that is being looked at. And I don't know whether or not -- you know, in some cases, I think the OPOS would work well and in some cases it's not going to work so well.

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Again, and the other thing is #8m not exactly sure how much data editing NIOSH does when they actually make an OPOS or how much data editing they do when they, you know, used to use a coworker model.

Do they hunt out the outliers on the bio-samples and try to, you know, not include them or handle them differently? And so, again, before we can answer your question, there is a lot of things that need to be known.

CHAIR MUNN: Well, one understands the number of variables is in itself variable. But without having some feel, or at least some range, it's difficult to think about the advantages and disadvantages to this type of approach, I would think.

DR. LIPSZTEIN: May I try to explain a little bit more? NIOSH has used OTIB-53 to compare construction workers with workers from the -- with normal workers. And

in some of the documents, they say, well, the construction workers were mostly monitored when they were doing some -- when they had an accident or in special situations when they were dealing with very high radioactivity.

CHAIR MUNN: Right.

DR. LIPSZTEIN: So suppose there was a construction worker, he was monitored. Let's say he began working at the installation and he was monitored just before starting the work in that place, so he had the background on his urine sample.

Then he does this special work and lot of the data, very high data because he was working in this special place. And the nuclide, let's suppose, didn't have a long half-life. It was very fastly excreted. So he had the peak in one month, the month that he worked very hard there. And he was monitored, let's say, two times a week, so he had eight monitoring results during that

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And then he had a very high result there, very high results there. Okay. Eight very high results. And then he was monitored after that because the radionuclide had a fast half-life and it was a small half-life, he decreased very rapidly to background. And he was monitored again.

So when you take all the data for the whole year together, his result is going to be relatively small because he had some results after that work that were nearly background, and before the work also nearly background, and then he had the high results during his work.

So when you take the mean, many of them, some results above the background, the final mean will be small. And then you have the normal worker that was doing routine and was routinely working. He would only have small results.

So then you have -- and this wild 1 2 take, you know, many workers like that from 3 construction site and workers, workers on the other site that 4 just have the 5 monitoring routine results, small group 6 monitoring results. 7 When the you compare two 8 distribution, you might end up thinking, oh, 9 the inspection workers and the non-10 construction workers had similar results, but 11 that's not true. That was masked by, 12 know, the OPOS on the non-construction 13 workers. Do you understand what I'm saying? 14 15 CHAIR MUNN: Yes, I understand. 16 DR. LIPSZTEIN: Okay. 17 CHAIR MUNN: Yes, yes. This is Elizabeth 18 MS. BRACKETT: Brackett. 19 20 CHAIR MUNN: Oh, good.

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MS. BRACKETT:

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I have a comment on

that. That's true, but we have not done any coworker studies on anything with short halfother than tritium, which not handled in the same That way. we actually assess the dose if we would use all of the bioassay results and do actual dose assessments. But all of the rest of the coworker studies done have been only on uranium,

plutonium --

DR. LIPSZTEIN: But, Liz, if you have Type-F uranium, it's the same thing. doesn't matter.

> MS. BRACKETT: No.

LIPSZTEIN: You know, it was If you have Type-F uranium just an example. would happen the same thing.

It still comes MS. BRACKETT: No. out in the urine though. It continues to come out in the urine.

> DR. LIPSZTEIN: Yes, but it fastly

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goes out. It decreases a lot very fast. The problem is, Liz, I think what we need and I couldn't find, you know, in OTIB-53, is a definition of what time period if the OPOS being applied? Is this applied just for the month of the accident or is this applied for the whole year always? I don't know.

MS. BRACKETT: Well, it's normally done for a year at a time. It depends on the amount of bioassay data. But going back to your scenario, it still would not be the case, because you wouldn't sample somebody weekly or biweekly monthly for long-lived or even You would have just a couple of results for the year.

So if they were in an incident, you would have those results and probably not a lot after that. And it would continue to be positive, even if it were Type-F. But you wouldn't continue to sample a person after their results dropped very low. Most people

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are on, say, an annual sampling period $\{g\}$ these longer lived nuclides.

So you don't get --

LIPSZTEIN: Suppose you have uranium Type-F, or even Type-M is the same, even after the weekend it drops a lot. have a period of time that the person was not working, that drops a lot. So I'm not saying just if it goes to a it goes -- you know, small number after, you know, a peak and the curve just has a big constant. You just has the small ones, it may end up with two distributions that they say are the And they're not really are the same, so it's --

MS. BRACKETT: So I think we have to look at the individual data, because I don't believe your concern is a valid one. I think we would have to look at the specific data and show that this is not the case, what you are saying.

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DR. LIPSZTEIN: But if you think about Type-F, and even Type-M, but mostly Type-F, if take uranium, if you take a sample before the weekend and after the weekend it just drops so much. So it's --

MR. MARSCHKE: Well, I don't think that has anything to do with the OPOS. I don't think that -- I kind of agree with Liz on this.

CHAIR MUNN: Well, I have to ask, are these concerns you feel well-captured in the findings and in the report that we have before us? Do you think there is some other aspect of the concerns, other than those that are set forth in the findings as we have them?

I think the findings MR. MARSCHKE: basically in the these concerns are findings. Maybe we are going into a little bit more detail in this discussion than what the findings -- but I think the findings can lead us to will lead us to the same

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discussion if we look at the findings. 1 193 2 Well, my point is that CHAIR MUNN: 3 until NIOSH has an opportunity to respond to the findings --4 5 Right. MR. MARSCHKE: 6 CHAIR MUNN: perhaps our 7 discussion here is illuminating for some of us 8 as Board Members, but it may not get us very 9 far in of resolving terms the issues themselves. 10 This is John. 11 MR. STIVER: If I could step in for a second? 12 13 CHAIR MUNN: Yes. 14 MR. STIVER: I second that. 15 large way, this was a very complicated There is a lot of statistical tests 16 review. 17 who were analyzed. I followed most of it. 18 Well, I'm actually reading it. Unlike Harry, probably couldn't 19 give you an impromptu 20 discussion of significance on a lot of it, but

all of that is in our report.

And it is a lot to digest. I would think that NIOSH would certainly want to take some time and read it very carefully and formulate their responses to where we could have this kind of detailed discussion where we all really kind of have our positions staked out maybe a little bit more clearly than we do right now.

Well, I couldn't agree CHAIR MUNN: especially in light of the fact that this kind of discussion becomes very esoteric And in any case, once it stops very quickly. being particularly illuminating for those of involved who not in the us are calculations, then we have misplaced priorities for our meeting here.

So I want to make sure, that's why
I asked the question are all of the concerns
adequately covered in the findings themselves?
And if everyone here is comfortable with the
fact that those findings are, in fact,

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illustrative of what we need to be doing, then we will ask for your agreement that we hand this into NIOSH review for their consideration and ask them the question whether there is a possibility that we need to keep this on the agenda for next time or will we be anticipating a longer period for response?

MR. HINNEFELD: This is Stu and I hate to estimate really any deliveries going forward. I think our best shot would be to, as we did this time, communicate with Ted in advance of whenever the next scheduled meeting is about what we will be able to -- whether we think we will be able to have something to talk about.

CHAIR MUNN: We will hold it as a carryover, Stu, and expect for a status meeting next time.

MR. HINNEFELD: Yeah, we can either
-- you know, I would suspect that some time
before the next meeting, we will know whether

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or not we are going to have anything to say

CHAIR MUNN: Right, right. That's good. All right. Thank you all for the presentation and for the mental stretch after lunch, that's good. Does anyone have any comments or any concern with our procedure going forward here?

MEMBER ZIEMER: Well, this is Ziemer. I don't have a concern, but I have a comment or a question.

CHAIR MUNN: Please do.

MEMBER ZIEMER: I'm wondering, and maybe I'll ask Liz this question, as you guys review this, would it be feasible to provide some sort of a sensitivity analysis that would address some of the -- I think some of the things Joyce describing was were sort might extremes of what happen in special cases.

And maybe some sort of sensitivity

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analysis could be included as you address the issues that are framed out, that's sort of the question or comment.

CHAIR MUNN: It believe it would be helpful to some of us, Paul.

The other MEMBER ZIEMER: thing was, and maybe just for clarity, when you talk about the OPOS methodology where you have one sample representing one person, or representing does multiple а person, that a year, does that still samples for, say, count as one towards say, the 30 samples that would be needed, for example, to reach a statistical decision, or is it just one?

MS. BRACKETT: Yes, I can -- the second question I can answer easily. Yes, the one sample just counts as one, regardless of how many results went into that. So we would need 30 people, 30 individuals in a year.

MEMBER ZIEMER: Okay. I just wanted to check on that.

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And as to the first MS. BRACKETT: question, we have statisticians that would be far better qualified to look at that. have to have them look at -- well, Tom LaBone and the statistician, they are the ones who did the work on OTIB-53 and would be able to address your first question. MEMBER ZIEMER: Thank you. CHAIR MUNN: Very good. Josie, you

have any comments or concerns?

MEMBER BEACH: No, I don't at this time. Thank you.

Very good. Anyone CHAIR MUNN: else? Not hearing anything, we will forward to a status report next time on RPRT-53. And we will move to the next agenda item, reviewing the status of, to begin with, PROC-31.

Well, Wanda, these MR. MARSCHKE: were -- I believe what these were were four reports that we -- or four documents that we

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looked at and we did a pre-review and back 1 ja January when we sent the Subcommittee a report which indicated that they found out these four documents had been reviewed or revised two or more times since SC&A did the review of these documents.

And so we did a pre-review to see whether or not the revisions had significant technical changes to the documents that would require there being a full re-review of these documents.

And in January of this year, we sent a report to the Subcommittee saying that the results of these pre-reviews of these documents do not require a full re-review.

And what we did, we talked about this in the February meeting, and I believe the reason these are on the agenda was that I had an action item to add to each one of the four documents a finding of no finding into the BRS.

And what we can see -- I guess you can see it on your screen now if you are looking at the shared screen?

CHAIR MUNN: Yes.

MR. MARSCHKE: Is this the prereview finding that I have added, and so has Steve Ostrow, I added it in Steve Ostrow's stating that, you know, basically just And so I have added saying what I just said. these four or similar four statements to each one of these four documents, or а similar statement to each one of these four documents.

And the only problem that I have had, and I might have to get some help from Lori, is I cannot, for some reason, change the status to closed.

CHAIR MUNN: Oh, really? That's not good.

MR. MARSCHKE: I've been trying to change the status to closed and I just can't do that. I was able -- I had better luck than

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I was able to add the findings, but 1 1 Stu. can't change the status on the findings. 2 Once 3 I add it, I can't change it. So that's --4 CHAIR MUNN: Have we encountered 5 this before, Lori? 6 MS. MARION-MOSS: Not that I'm 7 aware of, but I'm working on it as we speak. 8 CHAIR MUNN: This sounds like a new 9 It would be wonderful if Lori could qlitch. 10 close them for us from her lofty perch. 11 MR. MARSCHKE: Yeah. So right now, each one of these four documents, 12 you know, 13 PROC-31 and PROC-61, OTIB-20 and OTIB-5, have added, you know, a finding like this and 14 15 they need to be closed. just for the 16 CHAIR MUNN: Let us record look at each of them, and as we do, let 17 18 me make sure that the Subcommittee agrees that the only action that we have left here today 19 20 is to see that these are changed to closed in

some way.

this 245 1 MEMBER BEACH: Wanda, 2 Josie. do quick question Ι have one 3 comment. 4 CHAIR MUNN: Yes, please. 5 We talked earlier MEMBER BEACH: 6 during the 014 that we would like a review of 7 OTIB-20 possibly. Is this the same document 8 that we are discussing now? 9 MR. MARSCHKE: Yes. 10 MEMBER BEACH: Okay. 11 MR. MARSCHKE: Yes. This is the same OTIB-20. 12 That might bear some 13 MEMBER BEACH: 14 discussion because Kathy was going to make 15 that a finding that we review that document. And that would 16 MR. MARSCHKE: Yes. 17 be, you know, if we decide that that document has to be revised or reviewed with the new 18 19 that Kathy had, Ι think that that's 20 almost independent because what we looked at 21 before was, again, it was summarized in the

1 January report. 203 2 CHAIR MUNN: Yeah, I see that as a 3 separate item, personally. And we will continue to carry PER-20, definitely. 4 5 MR. STIVER: Ι think the And that 6 important thing to note is our 7 recommendation was based on the substantive 8 changes in the revision --9 MEMBER BEACH: Right. 10 MR. require another STIVER: 11 pass on it, but what Kathy has come up with is completely from another angle. 12 So I agree 13 with Steve, they are independent in a way. 14 MEMBER BEACH: Okay. That's all I 15 wanted to clarify. Thank you. You betcha. 16 CHAIR MUNN: Now, 61? 17 MR. MARSCHKE: I'm looking at 18 here now and that was -- again, I put it up in Pettengill's 19 it Harry name and is very 20 similar. It should be -- basically, I think I

have --

1	CHAIR MUNN: The wording looks fine
2	to me. Open and change to closed. No other
3	action, from my point of view. Subcommittee?
4	MEMBER ZIEMER: Right. I agree.
5	Actually, I'm all for these. If the wording
6	is in there, we can close them all.
7	CHAIR MUNN: Yes, that's my intent.
8	I just wanted to have in the record that we
9	looked at them one at a time and verified that
10	they were all of the same nature, the wording
11	is accurate, they can be closed.
12	If we can take a look at OTIB-20,
13	to see it?
14	MR. MARSCHKE: There it is. And
15	that was the one, I think, that we did the
16	pre-review on, OTIB-20.
17	CHAIR MUNN: All right. Very good.
18	Change to closed. Any comments from the rest
19	of the Subcommittee?
20	MEMBER BEACH: No, I agree.
21	MEMBER ZIEMER: Just one question
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1	there. I see you have a January 25 th date for
2	the action and the meeting was actually in
3	February.
4	MR. MARSCHKE: Well, we actually
5	responded to the Subcommittee. That's the
6	date of our report.
7	CHAIR MUNN: Yes.
8	MEMBER ZIEMER: Got you.
9	MR. MARSCHKE: Okay.
10	MEMBER ZIEMER: The last one is
11	supposed to be the report. I don't know where
12	that is showing up. I thought it was being
13	attached. I'm not so sure how the attachment
14	shows up, but
15	CHAIR MUNN: Well, but that's the
16	response date.
17	MEMBER ZIEMER: That's right.
18	Okay.
19	MR. MARSCHKE: But that's where I
20	was that's what I was referring to, Paul.
21	CHAIR MUNN: Yes, our action was in

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1 February, but their -- we agreed to 2 February, but --3 MR. MARSCHKE: Right. 4 CHAIR MUNN: -- it was a response 5 date. And the last of them is OTIB-5. 6 7 MR. MARSCHKE: There it is, OTIB-5. 8 CHAIR MUNN: We'll mark Very good. 9 it closed. With no concern from the rest of the Subcommittee Members, we will remove that 10 Thank you very much, 11 item from our agenda. 12 for seeing that it happened. It's 13 appreciated. No problem. 14 MR. MARSCHKE: 15 MR. KATZ: In the interim, please don't do that 16 just cut out, 17 again, whether you put us on hold or whatever. Thanks. 18 Thanks. 19 CHAIR MUNN: Our next item then has to do with the Hanford PERs and I'm 20 21 going to drop out of the conversation. This

portion of it will be chaired by Dr. Zieman, because I'm conflicted on all matters that have to do with the Hanford Site, as is Josie, I believe. And so we will not participate in this brief portion of the proceedings today. Go ahead, Paul.

MEMBER ZIEMER: Well, we already agreed, administratively I think with the -with our Designated Federal Official that it appropriate transfer these to the is to Hanford Work Group, and it sounds like I can it make the motion, second and vote unanimously to do that.

In any event, since we are not actually doing an action on Hanford, I'm not sure it matters whether the other two are involved or not, Ted. All we are doing is --

MR. KATZ: Right, right. I think, Paul, we can just handle this. We don't need to vote or do anything. I'm happy to send the

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Chair of the Hanford Work Group and let them know that -- let him know, because I think that is Dr. Melius, that we are transferring these two items, these reviews for him to handle in his Work Group.

So I'm happy to do that, and then we can carry it forward with that Work Group.

I think he is planning to convene that Work Group before the July meeting, in any event.

CHAIR MUNN: Then there is no further action necessary for anyone in this group, as I understand it, correct? That being the case, that item is also dropping off of our agenda.

MEMBER ZIEMER: My phone cut out there, so I'm back. I don't remember where we were.

MR. KATZ: Sorry, Paul. So I just said -- I didn't realize I had lost you, Paul.

So I'm happy to send the Chair of that Work Group, which is Dr. Melius, a

missive about this and ask his Work Group $_2$ to $_2$ take this one, these two PERs up, the reviews.

MEMBER ZIEMER: Okay.

CHAIR MUNN: Thank you much. Now, we have the interesting OTIB-55 up for us. And we are anticipating responses from NIOSH for the multiple findings that we have had in the past on the NCRP report and this is for quality factors. Matt, do I understand correctly you are leading this?

MR. SMITH: Yes, I sure can.

CHAIR MUNN: All right. Please do. It's all yours.

MR. SMITH: Okay. All right. Then I'm not doing anything with my desktop, but I see that the response is up on the screen.

The first comment was on using the most recent ICRP recommendations for weighting factors. The response here is that IREP itself uses ICRP-60 weighting factors as does the DOE complex, at this time. Around the

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2010 time frame, all the DOE sites basically switched over to using ICRP-60 as weighting factors for neutrons.

So because IREP was using ICRP-60 to convert the dose into rad, it really would not make any sense to jump to ICRP-103 weighting factors. Doing so would cause us to have to -- would cause a change in IREP. And in addition, the reporting that we are getting now from DOE is in compliance with ICRP-60.

So that's the response on that one.

CHAIR MUNN: Does anyone have a comment with respect to the NIOSH response? SC&A, what's your take?

MR. STIVER: This is John. Ιt implementation seems reasonable from an standpoint. Steve just put that out there to, I believe, to indicate that, you know, this is kind of a continuing -- continually evolving process and that the concern was whether the program keeping with the latest was up

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scientific guidance. 1 211 But given the problems we have and 2 3 in adoption by the various agencies IREP and so forth, I would 4 the use of 5 consider that to be a reasonable response. Ι 6 don't know if Steve has any comments regarding 7 that. 8 MR. MARSCHKE: No. I think that I 9 would agree with that. Again, it was more for 10 the sake of completeness. I put this in and 11 it was, you know --12 CHAIR MUNN: That's very good. Ιf 13 MR. MARSCHKE: Ι recall 14 correctly, ICRP-60 factors were -- where they 15 differed from the ICRP-103, the ICRP-60 are more conservative or more claimant-favorable. 16 MR. STIVER: Yes, that's 17 mу recollection, too, that it's actually lower on 18 19 some organs for ICRP-103. So any question or 20 CHAIR MUNN:

comment from Subcommittee Members?

1	MEMBER ZIEMER: No comment here
2	I'm satisfied with it.
3	MEMBER BEACH: This is Josie.
4	Same, I'm satisfied.
5	CHAIR MUNN: Fine. SC&A accepts
6	the recommendation and the Subcommittee
7	considers this item closed. Can the do we
8	have enough flexibility for you to update that
9	now, Steve?
10	MR. MARSCHKE: Well, we can give it
11	a try.
12	CHAIR MUNN: Let's see if we can do
13	this on this cumbersome process.
14	MR. MARSCHKE: I wasn't able to do
15	it for the other ones. I don't know if
16	CHAIR MUNN: Perhaps Lori has
17	worked magic for us in our lag time.
18	MS. MARION-MOSS: Not yet.
19	CHAIR MUNN: Okay. Thanks for
20	trying.
21	MR. MARSCHKE: I had to put the

1	phone down to type, so 213
2	CHAIR MUNN: That's quite all
3	right.
4	MR. MARSCHKE: Let's see if it
5	works. No. That's the error message I get
6	when I try to Lori, if you are looking at
7	the screen, when I try to change a status,
8	this is the error message I get.
9	MS. MARION-MOSS: Yes, I see it.
10	CHAIR MUNN: Lori, do you have the
11	ability to close it?
12	MS. MARION-MOSS: No. It doesn't
13	work for me either. There has been a change.
14	I recognize what the change is, so I'll have
15	to get with our IT Group.
16	CHAIR MUNN: All right. I hope you
17	are making notes, so that you can go back
18	after we are off the air here and close all of
19	these that we are attempting to close real-
20	time.
21	MR. MARSCHKE: Now, I don't know

how to get back to the -- I'm lost. 1 214 2 That should take you CHAIR MUNN: 3 back. 4 MR. MARSCHKE: Okay. 5 Back to OTIB-55. CHAIR MUNN: 6 MR. MARSCHKE: And what I'll do, 7 Wanda, is I'll just make notes here as to what 8 status changes we decide upon and then when 9 Lori gives me the green light, I will make the 10 changes, if that's okay with you. 11 CHAIR MUNN: That's fine, yes. 12 MR. MARSCHKE: Okay. 13 CHAIR MUNN: Just keep the 14 Subcommittee updated to ensure that that 15 happens. Are we ready for Finding 2? Finding 2 was 16 MR. SMITH: Sure. difference 17 commenting the on in 18 recommendations for a situation where 19 don't necessarily know exactly what the 20 neutron spectra was for the energy employee. IG-001 was written at the birth of 21

the program and, of course, this TIB followed that. And then after this TIB followed several TBDs, so as time was going on, we have gotten more and more information about what exactly the neutron spectra is at given sites.

In the IG-001, though, going all the way back to that, there is no mandate in there with language like "should" any or We use the information that is "shall." Table 2.2, there is some examples in Table 2.2 scenarios of different exposure and the weighting factor that would go along with those different types of scenarios.

When OTIB-55 came along, the emphasis there was to kind of take something that would be workable for any situation and certainly the 0.1 to 2 MeV energy range turned out to be the most claimant-favorable choice, both οf the weighting factor in terms correction and also in terms of Probability of Causation that ends up being calculated by

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1 IREP. 216 2 So that's the historical flow. You 3 know, 0.1 to 2 MeV is kind the claimant-favorable 4 suggestion made the 5 OTIB. And then subsequent to that, as written 6 in the response, the TBDs, you know, fleshed 7 out the picture for each site as each site was 8 developed. 9 CHAIR MUNN: Thank you, Matt. 10 John, is SC&A inclined to respond --Yes, we have discussed 11 MR. STIVER: this aspect of IG-001, I believe, at the last 12 13 meeting. Kind of looking back in time as to, 14 you know, how it was intended and a lot of 15 these aspects were fleshed out and the TBDs were detailed with specific guidance for the 16 different sites on these issues. 17 I am personally satisfied with Matt 18 19 Smith's response. 20 MR. MARSCHKE: What Ι would

suggest, this is Steve, is, you know, that we

put as this kind of -- I mean, I would like $_2$ to get the two documents saying the same thing. Not that they are, you know, necessarily contradicting each other right now, but they are not saying the same thing.

And one person could go, you know, to one document and get one direction and get another. So what my recommendation would be is to put this kind of like in abeyance status and just put a -- on the next time that IG-001 gets changed or if it ever gets changed, put it on the list of changes to be made, is to make sure that it is -- that this portion of it is consistent with what is in OTIB-55.

MEMBER ZIEMER: Hang on a second.

This is Ziemer. Isn't IG-001 the document that is never used in dose reconstruction?

CHAIR MUNN: That's pretty much it, yes.

MEMBER ZIEMER: We went through this before. It's a general guidance

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document. It is never used in dose reconstruction.

MR. STIVER: That's my understanding of it as well. And it is never used in dose reconstruction. I don't know that we gain much by going back and --

MEMBER ZIEMER: It probably won't be revised either.

CHAIR MUNN: My concern is more with -- as I interpret what Matt has said in this particular finding, he is saying that the guidance in the Site Profile documents are the documents of concern when they are doing this type of calculation.

And if that's the case, then there should be, in my mind, more concern with how OTIB-55 relates to the Site Profile document instructions than it does with IG-001, because we have discussed that many times and I think that is thoroughly understood by all of us.

If there is differing instruction

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that exists in the Site Profile documents than 1 2 in OTIB-55, then this is undoubtedly the right 3 place to address that. don't differing 4 answer to that. Are there 5 instructions in the site documents? 6 MR. SMITH: In general, the answer 7 to that would be no. If anything, the site 8 documents will go into more detail. The site 9 documents are going to be presenting whatever data can be found to show what the neutron 10 where 11 spectra around the facilities was 12 neutron exposure was possible. But it would not be in 13 CHAIR MUNN: conflict with OTIB-55? 14 15 MR. SMITH: No. It's going to be using the data from -- yes, 16 it's going to be 17 using the data from OTIB-55. 18 CHAIR MUNN: Okay. 19 The TBD is built upon MR. SMITH: OTIB-55. 20 21 MR. STIVER: Yes, OTIB-55 and the

ICRP-60 recommendations are actually haz d_0 wired into IREP to begin with.

MR. SMITH: Correct.

CHAIR MUNN: Then perhaps what is needed here is a slight revision in the wording of the response here, so that it might say, ultimately, both documents are superseded by more detailed guidance in the Site Profile documents, rather than leaving the inference that there is disparate ability.

Or in some other way clarify that. I think that's what I heard, that there is not conflict instructions. It's just that the more detailed one appears in the Site Profile documents than in OTIB-55, simply because the Site Profile documents can't afford to be more specific.

is MEMBER ZIEMER: Wanda, this Ziemer again. This one, though, is Technical Basis Document as opposed а guidance document, so I don't think this is

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superseded. The guidance isn't really superseded either. It's just general, has nothing to do specifically with dose reconstruction.

This is a Technical Basis Document which really deals with the conversion factors. Isn't it? I'm pulling it up here.

CHAIR MUNN: I think so. I'm going to let you do the work.

MR. SMITH: Just a short statement while that's being pulled up. That's true, that the TBDs are basically going to be citing the technical information in OTIB-55.

MEMBER ZIEMER: Right.

MR. SMITH: For example, the fraction of a given neutron source that falls into the 0.2 to 2 MeV range, the TBD is going to be recommending this factor of 2 to correct for the weighting factor difference.

CHAIR MUNN: So the point I'm trying to make is the only issue that we have

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here in the Subcommittee right now is $22\overline{2}$ semantics issue, correct?

MR. SMITH: Right. The response was addressing the comment that TIB-55 was not in total agreement or saying the same thing as IG-001.

Yes, yes, right, yes. CHAIR MUNN: And already addressed the IG-001 have We are quite familiar with that and issue. understand the difference between the guidance and the directive document. document The issue that remains is semantic and related only to whether or not "supersede" is the appropriate word to be using here.

I guess, alternatively, we could create yet another entry as we close it out, if we agree that we can, in fact, close it out given this information and we could address exactly what our discussion has been here and close it. Is there any problem with that?

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MARSCHKE:

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changes to either the document itself, OTAB3

55, or any of the Site Profile documents, that
it's just a wording change in the response,
then I think it is -- you know, I think we
should -- our recommendation would be to just
close it.

MR. STIVER: I would tend to second that. I don't see any point in changing it unless we are going to have a continued discussion. We have all agreed that it can be closed.

CHAIR MUNN: And we certainly do want to get it off the books and stop taking up everybody's time with it, if we have reached an agreement.

Is there any problem with our saying that this is accepted and we close it out?

MEMBER ZIEMER: I'm good with that.

MR. STIVER: I'm fine with it.

CHAIR MUNN: Josie?

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1	MEMBER BEACH: I'm good with that
2	also.
3	CHAIR MUNN: All right. You have
4	your marching orders, Steve. Let's see if we
5	can do it.
6	MR. SMITH: All right. Do you want
7	me to move on to No. 3?
8	CHAIR MUNN: Well, I was hoping
9	that Steve could go ahead and
10	MR. SMITH: Oh.
11	CHAIR MUNN: close it out.
12	Well, do everything except the closed part
13	MR. MARSCHKE: It's not going to
14	allow me to do anything, Wanda.
15	CHAIR MUNN: Yes, I know, but if we
16	if you go ahead and put the words in that
17	we have just used before, everybody agrees,
18	and it's closed. And then we will let Lori
19	close it for us after we have gone away and
20	everybody is sleeping.
21	MR. MARSCHKE: I can't put any

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1	words in. I can't make any modifications த்லூ
2	this one yet.
3	CHAIR MUNN: Oh, it won't let you in
4	to do it for No. 2?
5	MR. MARSCHKE: Oh, wait a minute.
6	Maybe I can oh, you want me to edit Matt's
7	
8	CHAIR MUNN: No.
9	MR. MARSCHKE: I don't think I
10	can
11	CHAIR MUNN: No, no. I wanted you
12	to add a statement as we did in Finding 1.
13	Just add
14	MR. MARSCHKE: No, we didn't add a
15	statement in Finding 1. It wouldn't let me
16	add a statement.
17	MR. STIVER: Yes, that was the
18	problem, we couldn't get in to make changes in
19	Finding 1.
20	CHAIR MUNN: All right. All right.
21	Very good.

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1	MR. MARSCHKE: We tried to do 技友
2	it just yes.
3	CHAIR MUNN: Even though we saw you
4	type it in, it wouldn't even accept that?
5	MR. MARSCHKE: Even though you saw
6	me type it in, it just
7	CHAIR MUNN: It wouldn't accept it?
8	MR. MARSCHKE: It went into the bit
9	bucket.
10	CHAIR MUNN: All right. All right.
11	I thought the only thing it would not let you
12	do is change the status. I didn't realize
13	MR. MARSCHKE: No, no.
14	CHAIR MUNN: it wouldn't let you
15	insert anything.
16	MR. MARSCHKE: It won't let me do
17	anything.
18	CHAIR MUNN: In a case like that,
19	we know what has to happen with No. 2 as well.
20	Now, I guess we are back to you,
21	Matt, and No. 3.

MR. SMITH: Okay. No. 3, the finding or comment here was that the TIB does not present the rationale for using NCRP Report 38 as a basis for adjusting pre-'73 neutron measurements.

The response takes us to the end of Section 2 and I wrote there page 7. It kind of starts on the bottom of page 6. And the statement in the TIB is the following and it is referring to comparing NCRP Report 38 to NCRP Report 20.

It states that "The two sets of data for the neutron quality factor are in close agreement despite the differences in the shape of the tissue-equivalent phantoms used to represent the human torso.

Figure 2-1 illustrates both data sets and how they are basically overlaying each other. The final sentence before Figure 2-1 states that the results in the following sections, meaning the following sections of

the OTIB, are based on the newer more extensive set of data from NCRP Report 38."

So that's the response on that for, you know, basis of using NCRP-38.

MR. MARSCHKE: So you say -- I missed that at the bottom of page 7.

MR. SMITH: It starts at the bottom and the word that is quoted starts at the very bottom of page 6 and they continue on to page 7 and then Figure 2-1 is also part of it.

CHAIR MUNN: Any questions or comments? John, is this acceptable to you?

MR. STIVER: I was just reading the differences between the two. NCRP-20 used the calculations based on a slab phantom as opposed to the cylindrical phantom in Report 38. And I would tend to agree that Report 38 is a more extensive updated data set on which to base these values.

MR. MARSCHKE: Well, wait a minute.

MR. STIVER: Now, whether it is

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laid out well-enough in Report 55, I guesso 1 2 Steve, that was your --3 MR. MARSCHKE: No. I think the question was: what did the -- the concern was 4 5 adjust individual to the doses that an 6 received in the 1950s or pre-1973 to the ICRP-7 60 factors. And so what you would have to do 8 is you would have to take out whatever quality 9 factor was used. 10 MR. Okay, STIVER: Ι what see 11 you're saying. All right. 12 MR. MARSCHKE: Whatever quality factor had been used back in history and then 13 multiply it by the new quality factor. 14 15 STIVER: Now, see you have to back old factor 16 out the before you 17 multiply them. Could you multiply 18 MR. MARSCHKE: 19 by the new factor? And so that was really the 20 question here. So when you go before 1973, 21 obviously, nobody had the Report 38 quality

factors, so they must have used the Report₂30 quality factors, so those are the ones that should have been backed out.

MR. SMITH: Right. And the authors here are stating that, you know, they found that 20 and 38 essentially agreed and so they used 38 as the basis to then go forward because of -- there was more extensive data.

MR. STIVER: But the actual values weren't significantly different to where it would make any difference -- okay. Okay. I get it. All right.

Well, if what Matt is saying is true, then essentially they are close enough. I don't know what kind of differences we are talking about, a percent or two or less. But then again, 38 is based on a more extensive set than your -- essentially, you have the continuity in the values going back beyond that.

MR. MARSCHKE: Well, you can look

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1	at the figure there. The only one where $ angle a$
2	seem to be if you go way onto the left
3	side, that seem to be a factor of 2 versus a
4	factor of 3, but the other ones seem to be a
5	lot closer.
6	MR. STIVER: Yes, the others are
7	all basically within the uncertainty.
8	MR. MARSCHKE: Within the
9	uncertainty. So I guess, you know, I would
10	MR. STIVER: Get down to the
11	thermal energy levels, maybe there might be a
12	little bit of a difference.
13	MR. MARSCHKE: Right. So I really
14	have I guess I have no serious misgivings.
15	If they just wanted an explanation, then there
16	is an explanation.
17	MR. STIVER: That's the
18	explanation. I just need to find a way to put
19	it into the BRS.
20	MR. MARSCHKE: Well, again, you
21	know, if the Subcommittee agrees with that

explanation, I think SC&A or myself as 1 2 generator of this finding, I think, you know, 3 I'm satisfied with it. MR. STIVER: Would you want to go in 4 5 at some point when you have access and put in 6 response saying that we accept 7 based on X, Y and Z? 8 MR. MARSCHKE: If the Subcommittee-9 - you know, if the Subcommittee accepts this 10 now, then I don't see that there is any reason 11 for us to do that. I mean, you know, this -because the Subcommittee overrides anything 12 13 that, you know, that we do. I mean, just for the 14 MR. STIVER: 15 record, to have it in there. Well, it's good for 16 MEMBER ZIEMER: 17 the record if you say that you agreed with it. Well, what we would 18 MR. MARSCHKE: 19 is I would put it in the same statement, 20 basically saying that the Subcommittee, and then as I had indicated before, and SC&A agree

with the NIOSH response and have decided 2 to 1 2 close the finding. Yes, that's all I was 3 MR. STIVER: saying was something along those lines would 4 5 I would say let's go ahead and be adequate. 6 close it out. 7 CHAIR MUNN: Very good. We have 8 agreement on resolution. from Any comments 9 any Board Members, concerns, any 10 questions? 11 MEMBER BEACH: Not from me. No, I'm good with 12 MEMBER ZIEMER: 13 that. 14 CHAIR MUNN: Very good. Let's put 15 that on the list of more to close. That's 16 great. And so doing, we can move on to No. 4. 17 Matt? 18 MR. SMITH: Okay. No. 4 was a on the data in the table of OTIB-55 19 20 pulling out Quality Factor 3 for the early 21 years versus a statement in the Chalk River

document which quotes RBE as being 5. 1 234 2 I definitely did go back to George 3 Kerr, one of the prime officers on this to get his take on it. And he does point out that, 4 5 you know, RBE is an empirical value whereas the weighting factor and quality factors are 6 7 consensus values. 8 will note that George reference 9 that is little with bit 10 different than the one that is footnoted on but 11 these tables, you will see in the 12 response, the reference there that he 13 citing a quality factor of 3 in NCRP Report 20 and also in NBS Handbook 63. 14 15 So the response basically here is that the early consensus quality factor was 3. 16 17 probably updating doesn't assess 18 reference that goes along with that table, that's Table 3-1. 19 Reactions, SC&A? 20 CHAIR MUNN:

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MR. MARSCHKE:

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It sounds like it is

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1	in abeyance, if they are going to update the
2	reference.
3	CHAIR MUNN: Any other thoughts?
4	MR. MARSCHKE: I would like to
5	check again the reference that they give.
6	Matt, just
7	MR. STIVER: For the Dose Handbook
8	63?
9	MR. MARSCHKE: Right. I would like
10	to, you know
11	MR. STIVER: I would like to check
12	that, too, just to make sure that everything
13	is
14	CHAIR MUNN: All right.
15	MR. MARSCHKE: Yes.
16	CHAIR MUNN: In which case, we will
17	need it to be in progress, right?
18	MR. MARSCHKE: But I'm assuming
19	that, you know, when we check it, it will be
20	as Matt said. And then, you know, it would be

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in abeyance.

1	MR. STIVER: Once we check it, iţ3&
2	just a matter of having it incorporated into
3	the document. Yes, we do the in abeyance, at
4	that point.
5	CHAIR MUNN: All right. Then we
6	will check 04 next time. We will leave it on
7	the agenda for your response.
8	MS. MARION-MOSS: Does the status
9	of Finding 4 have to change?
10	MR. MARSCHKE: Change to in
11	progress.
12	CHAIR MUNN: I believe in progress,
13	yes.
14	MS. MARION-MOSS: Thank you.
15	MR. MARSCHKE: Until, you know, we
16	check the
17	CHAIR MUNN: Right.
18	MR. MARSCHKE: Report 20 and
19	Handbook 63.
20	CHAIR MUNN: Very good. We will
21	leave 4 open and we will move on. I'm relying

1	on you to shift the screen, Steve. 237
2	MR. MARSCHKE: Oh, I'm sorry.
3	Where are we going? We're going to PERs?
4	CHAIR MUNN: I believe unless, I
5	guess, this is the last one, then I should ask
6	whether anyone has any closing thoughts,
7	comments or concerns,
8	MR. MARSCHKE: That is the last.
9	That is the last finding under OTIB-55.
10	CHAIR MUNN: Fine. And we have
11	essentially closed three and have one that is
12	being opened one more round. Wow, references
13	are checked. Other than that, we are done
14	with that one, unless we have some other
15	response from someone.
16	Not hearing any
17	MR. STIVER: Interested in a
18	comfort break at this point?
19	CHAIR MUNN: We are just about
20	ready for one. Do you want to do that before
21	we start with the next set of PERs?

1	MS. MARION-MOSS: Yes. 238
2	CHAIR MUNN: All right. Very good.
3	MR. STIVER: I've been overridden.
4	CHAIR MUNN: Let's take do you
5	need 15? We can take 15, if you need it. And
6	we will be back at 3:50, right?
7	MR. KATZ: Right.
8	CHAIR MUNN: Very good. We will see
9	you back at 3:50. Bye-bye.
10	MR. MARSCHKE: Bye.
11	(Whereupon, the above-entitled
12	matter went off the record at 3:37 p.m. and
13	resumed at 3:50 p.m.)
14	CHAIR MUNN: Let's begin with the
15	Status Reports on the four PERs that we have
16	listed, the first of which is 33.
17	MR. STIVER: Okay. This is John.
18	33 and 25 are going to get combined. If you
19	remember, this is the Huntington Pilot Plant
20	PERs from different revisions. This is one of
21	the ones that we were doing an updated Site

Profile Review. It was that one and PER-389 which is Hooker, is another one that we were doing a Site Profile update on.

And so I have the analysts who are doing those Site Profile Reviews also slated to do the PERs for obvious reasons. looks like will probably have we Site Profile Review for Huntington is almost complete and so, you know, right on the heels of that will be the PER review.

And I believe we will -- shouldn't have any trouble having that ready for the next Board meeting.

CHAIR MUNN: Okay.

MR. STIVER: The same said Site Profile the Review has been delivered and we are in the process of getting started on the PER. That, too, should be ready by the next Board meeting.

37 was --

MR. KATZ: Wait, before you --

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1	MR. STIVER: Yes? 240
2	MR. KATZ: John, before we move on,
3	let me just get some clarification from the
4	Subcommittee on this. With Huntington there
5	is no issue. We don't have a Work Group.
6	The Hooker Site Profile was
7	actually done before the Uranium Refining AWE
8	Work Group.
9	MR. STIVER: Right. That will be -
10	- yes, we have the same issue with quorum,
11	whether it will have to be transferred.
12	MR. KATZ: It's not a quorum issue
13	with Hooker, but Hooker I just wanted to
14	confirm since we have, again, a Work Group
15	that has dealt with the Site Profile, I think
16	they should be dealing with the PER review as
17	well except for this, right?
18	MR. STIVER: I would assume so.
19	MR. KATZ: Yes. I'm asking that of
20	the Subcommittee really, because they have to
21	look you would refer that to the

Subcommittee -- to the Work Group, the Uranippe Refining AWE Work Group.

CHAIR MUNN: Yes. I think we have agreed we're going to do that routinely, right?

MR. KATZ: Okay. Good.

CHAIR MUNN: Ι think. Although from my perspective, we still need to track these things until they go and we need to this Subcommittee identify here in on the record that that responsibility has because we still have the BRS to see to.

MR. KATZ: Right. And we are actually going to try to get other Work Groups to review the BRS. I mean, John's folks at SC&A will be putting stuff into the BRS for Work Groups. I think we can make that all happen.

CHAIR MUNN: Hopefully. But for the time being, we will continue to track these four PERs until ultimately they are

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closed, but for the time being, we will anticipate seeing Huntington next time and Hooker next time. We will see and then send to the Work Group and go on from there.

MR. STIVER: And Ames is -- we are still getting the Site Profile Review finished up. That should be in hand within a couple of weeks and then following on that, then will be the PER review.

I'm kind of hesitant to commit to having that in time for the next meeting, although I'll certainly work with Ted and Wanda to keep you apprised of the progress. And if it does look like we are going to have it in time, then we could go ahead and slate it for a discussion.

CHAIR MUNN: We will call it a big maybe.

MR. STIVER: Big maybe.

MS. BEHLING: John, this is Kathy Behling. And Hans and I are working on the

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Ames, you know, Site Profile work and TBD. $_{24}$ 3 believe we should certainly be ready by the next meeting, I'm hoping.

CHAIR MUNN: All right.

MR. STIVER: And just to kind of backtrack a little bit, 31, which we substituted 11 for, will also be ready for discussion at that meeting.

CHAIR MUNN: 31 will be ready.

MR. STIVER: And possibly 30 as well, Savannah River Site. We should have something in hand there within -- probably by mid-May.

CHAIR MUNN: Okay.

MR. STIVER: So we will have a lot of PERs to discuss next time around.

MR. KATZ: John, can you remind me to -- one of these -- I'm thinking it was Hooker, but I could be wrong. We discussed the Site Profile Review at the last Board meeting and it was decided in the Board

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meeting we wouldn't go on with a PER review 1 2 until t.hat. Site Profile Review had been 3 reviewed by the Board and a decision was made. 4 MR. STIVER: That Ames, was 5 actually. That was not Hooker. 6 MR. KATZ: Okay. I just wanted to 7 make that clear. sure was So we're not 8 proceeding with a PER on that until we have the Site Profile Review in hand and considered 9 10 by the Board. Ted, this is Josie. 11 MEMBER BEACH: 12 I believe they were going to put a Work Group 13 together for that one, if I'm not mistaken. 14 MR. KATZ: Yes. 15 MEMBER BEACH: For Ames. You're right. 16 MR. KATZ: You're exactly right, Josie. 17 18 MR. STIVER: That's right. Ι recall that now. 19 That should be a Work Group 20 established. Dr. Melius had sent out а 21 notification asking for volunteers, Ι

1	recall. 245
2	MR. KATZ: That's right.
3	MR. STIVER: So, you know,
4	committing to a PER review on that would be
5	premature then, at this point.
6	CHAIR MUNN: But for the time
7	being, we will continue, for our purposes, to
8	follow 33, 25, 37 and 38. All right. Any
9	other thoughts, comments? We will hope for
10	all of those, plus 31 and 30, next time. We
11	will see how that goes.
12	MR. STIVER: Like I said, I'll try
13	to keep you apprised if there is any changes
14	in the plans.
15	CHAIR MUNN: Good. Thank you much,
16	John, appreciate it.
17	The next item that we have is OTIB-
18	37. We had three open findings and we were
19	going to get feedback from NIOSH today.
20	MS. MARION-MOSS: Wanda, this is
21	Lori.

1	CHAIR MUNN: Good. 246
2	MS. MARION-MOSS: It's my
3	understanding that SC&A was waiting for the
4	reissue of the TBD for these particular
5	findings.
6	CHAIR MUNN: I think that's
7	correct.
8	MS. MARION-MOSS: And the TBD has
9	been issued, and I'm just wondering if SC&A
10	had an opportunity to look at it?
11	MR. MARSCHKE: That was the August
12	24 th issue, Lori?
13	MS. MARION-MOSS: Yes, it was.
14	MR. MARSCHKE: Okay. Yes, I don't
15	think we looked at it yet.
16	MR. STIVER: Actually, I did get an
17	email from Joyce and she had looked at it and
18	felt as though it had met her concerns. She
19	hasn't written any formal responses yet, so we
20	would have to put those into the BRS.
21	CHAIR MUNN: So

1	MR. STIVER: She wasn't able 249
2	stay on for this part of the discussion, so
3	I'll have to get back in touch with her after,
4	off-line, and then Steve and I can go ahead
5	and upload responses.
6	CHAIR MUNN: So we don't have
7	anything in writing yet on any one of the
8	three?
9	MR. STIVER: We have a verbal
10	commitment, but nothing in writing, at this
11	point.
12	CHAIR MUNN: Okay. We have three
13	outstanding. We will just carry them over.
14	MR. MARSCHKE: Yes, but now it's an
15	SC&A
16	CHAIR MUNN: Yes, it is.
17	MR. MARSCHKE: action as opposed
18	to a NIOSH action.
19	CHAIR MUNN: Got it.
20	MR. STIVER: All right. So it's in
21	our court now.

1	CHAIR MUNN: Yes. And 248
2	MEMBER ZIEMER: Same status we had
3	last time, because at our last meeting the TBD
4	had already been issued and SC&A needed to
5	review it.
6	CHAIR MUNN: Yes. I think that was
7	the case and
8	MEMBER ZIEMER: Sounds like the
9	review was pretty well done, but not written
10	up yet.
11	CHAIR MUNN: Yes, that's what it
12	sounds like. That's what I hope I'm hearing
13	anyway.
14	MR. STIVER: That is correct.
15	CHAIR MUNN: And the next item then
16	is OTIB-54. A report on the revision that is
17	coming out, we hope.
18	MS. MARION-MOSS: Well, this is
19	Lori again. OTIB-54 is still within the
20	review cycle. During the review cycle, we
21	encountered some technical issues, some

additional issues, so we are currently doing some additional research, so that particular document will possibly have to be carried over as well.

Right now, we are -- we have a completion date of the end of May.

CHAIR MUNN: Okay. That bodes well for our next meeting, then. We will expect to hear from you on that. Any comments, questions?

If not, we are sweeping through the last hour and a half of our meeting very quickly. The next item that we have is IG-003. I am still continuing to search for any indication of where that came from. I have struck out so far every time I have looked, but I'm continuing.

I'm not going to take that off yet, because I want to make sure that we have a correct answer. If it's there, I will find it. It's not easy because it is not easy to

search by category always, but I'm looking. 250

As far as PER-27, I think Brad knows about that. I think that has been transferred and that will drop off, which brings us up to administrative detail.

And that means our next meeting when we are going to have it. Now, we had some discussion earlier this year about going back to our original process in former years of combining some of our meetings with full Board meetings.

I expressed some concern, at that time, because we have had difficulty with spreading our staff between our demand and the demands of a Board meeting, but as was pointed out to me, and it's true, we have done it in the past and, apparently, we have managed to succeed and live through it.

So the question that is before us is: when is our next meeting? We clearly have things that are going to be done in May and in

June. I would think that we would not want 250 schedule anything before, at the very earliest, the last week in June and if we are going to go that late, then should we consider meeting with the Idaho Falls meeting in July or not? I think someone is trying to -- needs to comment on that.

MR. HINNEFELD: Wanda, who did you say should comment on that?

CHAIR MUNN: Yes, please.

MR. HINNEFELD: From our standpoint, you know, have largely wetelephone participation anyway from ORAU and I don't see a whole lot of issue with combining it with the Idaho Board meeting. course, we won't know for a while what that Board meeting's agenda is and how full it is and how late the Board meeting will go, so it could be sort of a fluid situation in terms of what day would we actually have the --

CHAIR MUNN: Well, I think we would

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have to assume that we were going to meet the day before, rather than the day after, because we won't know whether there is a day after or not.

MR. KATZ: Well, this is Ted, hold on, Wanda.

CHAIR MUNN: Okay.

MR. KATZ: Can you hear me? So it's not looking to me, although, you know, I don't have enough information to even do a tentative schedule yet for the Board meeting, but I'm not thinking it's likely at all that we have a two and a half day Board meeting.

So actually, it doesn't hurt to occur before the Board meeting, if we are going to pair it up with the Board meeting.

CHAIR MUNN: You are saying we should do it on the $18^{\rm th}$ if everybody wants to do it on the $18^{\rm th}$?

MR. KATZ: No, or the 17th. I mean, it just depends on -- I don't know how

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long the Board meeting is going to be yet, $_2$ §9 that's why I think it's kind of fluid as to what the Board meeting will be.

So I mean, that's one possibility.

I don't -- I mean, yes, that's one possibility. I'm not sure there is a huge advantage in -- I mean, that makes it easy for the Board Members, because they are already there, if they want to attend a day at the Subcommittee meeting if they're there.

But I think this also was pretty easy today and this can be scheduled, you know, anytime. So in other words, doing this by teleconference at Live Meeting.

CHAIR MUNN: Well, I'm pleased that it was easy for others. It was not easy for me.

And I don't anticipate that magic is going to happen in the meantime, but that's fine. My preference personally would still be to do this at some other time, but if it is

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the Subcommittee's desire that we do it $2\frac{1}{2}$ And conjunction with the Idaho Falls meeting, then that or we can -- I guess I need response from someone else.

Would you rather that we move decisively into this telephonic kind of meeting or would you prefer, as I would, that we have face-to-face meetings in Cincinnati when we have this kind of agenda to address?

You know, I have expressed myself fairly frequently. What's new about that?

Nothing. Okay. But I am not hearing from Josie and Paul and need to do that, I think.

MEMBER ZIEMER: Okay. This is Ziemer. Either way I will only be there by phone. I won't be allowed to participate in the meeting directly because --

CHAIR MUNN: Yes.

MEMBER ZIEMER: -- of medical reasons.

CHAIR MUNN: Right. Josie?

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MEMBER BEACH: I am fine either way. The phone works, but also face-to-face is fine, so --

this is Ted. KATZ: And Ι think it's functional, Ι as long as which I think it was very functional today, despite -and again, part of Wanda, are computer problems which problem, can be fixed actually. They are individual, but they are not a problem with the system.

But the Board is having to save some money here and there and one of the main ways it can do this is through cutting out travel that isn't necessary. And while there are some groups that need to meet face-to-face, I think it actually is quite practical for this group to meet, you know, telephonically with Live Meeting.

So I mean, the Idaho meeting is sort of a separate case. We are going to be out there already and it's another group that

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is lined up for whatever. If we have a degrative, basically, because we don't need all that time for the Board meeting, then that might work because it's not going to -- we are not going to incur any special costs from that.

But in general, going forward, I think it makes sense for this Procedures Work Group to meet by telephone and by Live Meeting at least most of the time.

MR. HINNEFELD: Yes, this is Stu. Τf could offer Т from а programmatic standpoint, we are in a situation where money we spend -- you know, it's much more severely this year than in previous years. Money we spend on things like travel is going subtracted from the work we can do programmatically.

And from our standpoint, the remote meetings are -- it's really important for us to move as much as possible to the on-line

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having said that, Now, Ι think something to consider might be shorter maybe more frequent on-line meetings, because it. standpoint from our also, it's less disruptive to spend half a day in a meeting than it is all day. And when people are -traveling people across when you are the country to meet, then it makes sense, well, if you are going to do that, go to that trouble and that expense, let's get our day's worth and make a whole day meeting.

But if you are meeting on-line, I think we can relook at the paradigm of doing, you know, eight-hour meetings and maybe do half day meetings, which I think fits the daylight schedule, the time of day schedule more readily for all of us since we are spread across the country and also is somewhat less of an imposition on the daily work of us and our contractors.

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1 MR. KATZ: That's a great points I think that is worth considering for 2 Stu. the Subcommittee to do. 3 CHAIR MUNN: So what do I hear as a 4 5 suggestion for our next meeting? What and where? 6 7 MR. HINNEFELD: Well, as always, 8 the Institute will do what the Board and the Work Groups and the Subcommittees want to do. 9 I think the suggestion would be 10 toward the latter part of June, the last half 11 12 of June sometime and a short -- maybe don't plan to do eight hours, plan to do four hours, 13 because we have some things remaining from 14 15 today that we couldn't finish that may be 16 moved along and we will have some things to 17 work on. 18 CHAIR MUNN: Taking Stu's suggestion to heart, how about the 20th of 19 June, Thursday? 20

HINNEFELD:

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1	matter, I prefer not to do it on a Thursday
2	but I can.
3	CHAIR MUNN: Okay. What about the
4	18 th , Tuesday, or the 25 th , Tuesday?
5	MR. KATZ: I have to schedule I
6	have Work Group meetings to schedule for the
7	17 th through the 19 th . I have to hold off on
8	until I've sorted out the Work Group's date.
9	MR. HINNEFELD: I can do the 20 th
10	if need be.
11	MEMBER BEACH: Wanda, this is
12	Josie. I am available the $20^{\rm th}$. However, I'm
13	not available the last week of June.
14	CHAIR MUNN: Okay.
15	MR. HINNEFELD: And if we are doing
16	it on-line the 21 st might work, too.
17	MR. KATZ: Yes, what about the
18	21 st ? How about the 21 st ?
19	MEMBER ZIEMER: I can't do the
20	21 st .
21	MR. KATZ: Okay.

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1	MEMBER BEACH: I have a conflictzin
2	the morning of the 21 st .
3	MR. HINNEFELD: Well, okay, back to
4	the 20 th , I guess.
5	MEMBER ZIEMER: Okay. I can do any
6	other day in the week of the 17 th or the week
7	of the 24 th .
8	CHAIR MUNN: Okay. Well, Josie
9	said she can't do the 24 th and so that
10	MEMBER ZIEMER: That week?
11	CHAIR MUNN: Yes. She can't do that
12	week.
13	MEMBER BEACH: That whole week.
14	CHAIR MUNN: So she is out.
15	MEMBER ZIEMER: I got you.
16	MR. HINNEFELD: Wait a minute. The
17	20 th , I would have to
18	CHAIR MUNN: Well, that's too
19	complicated already.
20	MR. HINNEFELD: The 20 th is going
21	to be hard for me in the morning.

1	CHAIR MUNN: Yes, we need to give
2	up on the 20 th . So we have given up on the
3	20^{th} and 21^{st} . And Ted has the 17^{th} and 19^{th}
4	tied up, which is
5	MR. KATZ: Yes, that would be the
6	$17^{\rm th}$, $18^{\rm th}$ and $19^{\rm th}$. Let me I could probably
7	peel away the 19 th if I need to.
8	CHAIR MUNN: That's all right.
9	MR. KATZ: But I shouldn't yet. I
10	shouldn't yet.
11	CHAIR MUNN: No, don't mess yourself
12	up. There is no point in doing that.
13	MEMBER BEACH: What about the first
14	week of July, Wanda? I know it's a holiday
15	week on the 4^{th} . What about the 1^{st} , 2^{nd} or 3^{rd} ?
16	CHAIR MUNN: Well, it doesn't
17	matter to me. The 2^{nd} would be fine for me.
18	MEMBER BEACH: That's fine for me
19	as well.
20	CHAIR MUNN: Paul?
21	MR. KATZ: That's no problem for

1	me. How is that for Paul?
2	MEMBER ZIEMER: Actually, I am in
3	therapy all week that week.
4	CHAIR MUNN: Okay. We don't want
5	to do that. It is beginning to look to me as
6	though we would be wise to schedule this
7	behind Idaho Falls, if we are going to be
8	there anyway.
9	MR. KATZ: Well, we have to
10	okay. But we have the week of July 8 th , too.
11	CHAIR MUNN: Yes. But again, my
12	concern is whether or not the staff is going
13	to be able to devote time and energy the week
14	before a Board meeting.
15	MR. STIVER: I also just want to
16	point out the week of July 8 th is the HPS
17	meeting.
18	MR. KATZ: Oh, okay.
19	CHAIR MUNN: Which makes it bad for
20	three-quarters of the people involved.
21	MR. STIVER: It would be bad for me

This 245 1 because I need to go out there. 2 Stiver. 3 CHAIR MUNN: Yes. Can we say that are going to meet with the Idaho Falls 4 5 And leave -- we are assuming that we will meet on the 18th? 6 MEMBER BEACH: Or the 16th. 7 8 MR. KATZ: But the Subcommittee won't be the 15th, because that will be the 9 10 Board meeting. Working on the 16th 11 MR. HINNEFELD: would mean we'd need to --12 CHAIR MUNN: Yes, the 16th is when 13 14 the Board starts. MR. HINNEFELD: -- travel on Sunday 15 to be there on the 15th. 16 Yes. 17 CHAIR MUNN: Or we can assume 18 that if we are going to have a one and a half 19 day meeting, that no is going to one 20 apart over the fact that we а break get between, a few hour break between the end of 21

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1	the Board meeting and the beginning of ១៥4
2	meeting the next day.
3	MEMBER BEACH: That would work for
4	me.
5	CHAIR MUNN: We are going to be
6	there anyway. And our key folks will be
7	there. Hopefully, others can be there or be
8	on the phone.
9	Steve, can you make it on the 18 th ?
10	Have we lost Marschke?
11	MR. STIVER: Still out there,
12	Steve? He's probably muted.
13	CHAIR MUNN: We have lost Steve.
14	MR. KATZ: It's okay. I mean, staff
15	can join by teleconference, so unless Steve
16	has a holiday planned for that week, but I
17	have to follow up anyway with Dick as well.
18	He is not on the call.
19	CHAIR MUNN: Yes.
20	MR KATZ: So I can see about

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availability for the 18th. And again, I can't

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commit to that, at this point, because I dong t
know about the Board meeting itself, but
anyway, I can pencil this in, check with Dick,
check with Steve and we will see.
We won't actually settle this for a
little while yet, because the Board meeting
won't be settled for a little while yet.
CHAIR MUNN: All right. That's
good.
good.
good. MR. KATZ: Okay.
good. MR. KATZ: Okay. CHAIR MUNN: Do we have any other
good. MR. KATZ: Okay. CHAIR MUNN: Do we have any other items which need to be addressed or which need
good. MR. KATZ: Okay. CHAIR MUNN: Do we have any other items which need to be addressed or which need to be anticipated for the next agenda item?
good. MR. KATZ: Okay. CHAIR MUNN: Do we have any other items which need to be addressed or which need to be anticipated for the next agenda item? If not, then we are adjourned at,

CHAIR MUNN: Very good. We will see you in Idaho Falls.

(Whereupon, the teleconference meeting was concluded at 4:15 p.m.)

NEAL R. GROSS