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convenes

MEETING FOUR

SUBCOMMITTEE FOR DOSE RECONSTRUCTION AND SITE PROFILE REVIEWS

The verbatim transcript of the Subcommittee for Dose Reconstruction and Site Profile Reviews, Meeting 4, held at the Hilton Cincinnati Netherland Plaza, 35 West Fifth Street, Cincinnati, Ohio, on March 24 and 25, 2005.

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P R O C E E D I N G S

(12:05 p.m.)

OPENING REMARKS

DR. ZIEMER: Good afternoon, everyone. I'm going to call the meeting to order. Thank you for being here. This is a rather cavernous room. There's a lot of echo here. We're never quite sure what to expect on subcommittee meetings in terms of public participation, but we have at least some support people here that make us feel like it's worth having a big room, have a few spectators.

This is the meeting of the Subcommittee for Dose Reconstruction and Site Profile Review of the Advisory Board on Radiation and Worker Health. The subcommittee members participating today for the record: Mike Gibson, Rich Espinosa, Roy DeHart, Mark Griffon, Paul Ziemer, and we expect Henry Anderson to be joining us tomorrow. Designated Federal Official Dr. Lewis Wade is with us today, as well.

Remind everyone again, if you haven't registered your attendance with us, this includes Board members, the -- Cori Homer has

the registration book there by the door. Please do that sometime yet this afternoon.

I assume all of you have had a chance to review the agenda. This was distributed several weeks ago by e-mail. And you're aware that the focal points of our sessions deal with two primary reports. One the review of the first 20 dose reconstructions, a document that we're hoping to wrap up, and then the Bethlehem Steel site profile review, as well. So that will be -- those will be our main focus for the next couple of days. There will be some other pieces of information that come up from time to time, but we'll follow the agenda as close as we can.

I've indicated to some folks that if we need to, in terms of timing, if it looks like it's going to take us a little longer, we would probably stretch this afternoon session a little longer in order to allow people who have made travel arrangements for tomorrow afternoon to be able to keep those. So if it looks by late this afternoon that we're going to need more time, then we'll probably stretch the afternoon a little beyond what the stated

adjourning time or recessing time is.
Let me turn the mike over to Dr. Wade for a moment for some introductory remarks, as well.
DR. WADE: Thank you, Paul. Let me thank you each personally for making yourself available. I know that it's difficult, and we do appreciate your coming together. I bring you welcome from the secretary and from John Howard, the NIOSH Director, and again, I bring their thanks to add to mine.
As Paul mentioned, really today we're going to put our attention to the issue of individual dose reconstruction reviews. And I'd just like, in my role as Designated Federal Official, to pose some questions that I think need to be answered by the full Board based upon input from this subcommittee.
If you remember, when last we met in St. Louis we were just recently in receipt of the SC&A report that reviewed the first 20 dose reconstructions. There was also a discussion there about what kind of a report card or scorecard the Board would use in reporting out its summary findings. I think that issue of scorecard needs to be closed on or the issues

discussed at the last Board meeting finalized. And then I think that it's appropriate that that scorecard be used to develop this subcommittee's thoughts on those first 20 dose reconstructions. So it would be nice for this group to come to closure on deciding upon a report card and then filling out that report card.

I think it's also important that this group start to discuss and then bring to the full Board how it would intend to see the full Board close on these issues. Would this be a letter to the secretary? Would this be a motion on the record? How will the Board conclude its work on each of these -- each batch of these dose reconstructions? I think we need to talk about that in the relaxed environment of this subcommittee meeting and bring those thoughts to the Board so the Board can act upon those thoughts at the next meeting.

I think then it would be well for us all -- and SC&A is with us -- to pause and discuss lessons learned from the process of the first 20 so we can bring those to subsequent batches of reviews. I think the Board has laid out a very

healthy process, but I assume it can always get better by iteratively evaluating its effectiveness.

And then the last issue I'd like you to think about is the overall scope of this dose reconstruction review task. As you know, the depth of these reviews has grown, as has possibly the cost of them. And I'll need a sense from the Board -- starting, I think, with this subcommittee -- as to whether the Board still holds to its original scope of what it would like to see reviewed. And then if that's the case, I would need to set out to see that the resources were available to do that.

I'm not in any way trying to limit the scope of the review if this subcommittee and the Board thinks we need to go to that two, two and a half percent measure we used, then that's what we should do. We would need to start to prepare information as to the cost of that in light of what we've learned. And I would need to go out and get the money to see that we can do that.

So I think all of those issues sort of fall under the scope of what's to be discussed

today. I think it's a fairly full plate today, and wish you well in your deliberations. Thank you, Paul.

DR. ZIEMER: Thank you very much, Lew, and let me ask if any of the subcommittee members have any other questions relating to agenda or scope of work before us. Mark?

MR. GRIFFON: I think there is -- and I've sent e-mails or talked to you about this. I can't remember now, but I think there's other things that we may want to cover prior to the next full Board meeting, and they're not on the agenda here today. But I just think we should sort of keep them on our radar.

DR. ZIEMER: Yeah, and Mark, I think it's in order for you to go ahead and identify the items that you were thinking about just so we can have those in mind as we proceed, as well.

MR. GRIFFON: Yeah, one certainly is the procedures review. SCA has provided us with their first cut of a procedures review, and I think that we should go through it -- you know, review it as a subcommittee and bring our recommendations back to the full Board.

DR. ZIEMER: And the discussion at this point

would be on actually how are we going to do that rather than actually doing it.

MR. GRIFFON: Right.

DR. ZIEMER: How and when perhaps. Go ahead.

MR. GRIFFON: Second is the Mallinckrodt, Revision 1, I guess, site profile. And at this point I don't think that SC&A has finished their review of Rev. 1, but I think that we committed to having another -- in our one vote we talked about resolving the issue on the petition at the next Board meeting. So I don't want to let us slide on that one. So I think somehow we've got to get Rev. 1 in -- in our review, before -- prior to that next Board meeting which is coming right up pretty quickly.

And finally, I think we need to move along a task order for SEC petition review, and we talked about that at the last meeting. I think -- at this point you've sort of rolled some of the work that's being done on that under the site profile review, which I think was appropriate. But I think we still may need a task, a specific task for that. I've actually taken the liberty of drafting something off the

original task order contract -- which I have with me so I can provide that to discuss these.

DR. WADE: I agree that I think it would be most appropriate for the subcommittee to discuss those issues. I think we are working to try and get a phone meeting of the full Board before our next sit-down meeting, at which time hopefully the full Board can close on some of those issues. So I think we are trying, Mark, to live true to your desire, but I think any intellectual lifting we could do here to work that process along would be a good thing.

DR. ZIEMER: That's correct, and I think Cori has already made contact with all of you to ask -- I think there were suggested dates. I don't recall them right now, and it's not critical at this moment, but we're trying to find a time when we can get a telephone meeting of the Board prior to our upcoming meeting next month. And that would be a meeting where we discuss process. Not actually discuss, for example, the Mallinckrodt profile, but the process of coming to closure on it. And likewise some of these others, and we may be able to take an

early look and be prepared to make a recommendation to the full Board on process on some of these.

Thank you, Mark.

DR. WADE: One of the functions listed in the charter for this group is to clarify the Board intent regarding technical scope of tasks assigned to the audit contractor. So I do think, even under the previously agreed-upon functions of this subcommittee, we're well within our rights to talk about the issues that you mentioned.

It also -- to add to your list, Mark, I think it would not be inappropriate for us to discuss some of the issues that might arise concerning the SC&A review of the Iowa TBD that you're aware of. And again, setting the stage for a more formal discussion by the full Board in its telephone call, preparing all of us for having all of the information we think, and all of the questions we think need to be raised, raised so when we meet next as a full Board together in Iowa, we're prepared to do our business.

DR. ZIEMER: Then for the record -- I can't remember, there's been so many e-mails and so

on back and forth the past month, but I think you all received from NIOSH the new information on Iowa relative to the issue of the confidentiality of records -- well, a classification of records, and the fact that there appears to be a time period now where the classification issue is not the issue any longer, and this raises some questions relative to our previous recommendation.

Since there is this new Iowa site profile, and we were in the process of preparing the recommendation to the secretary, I felt it was very important that we not only look at this revised -- it's a technical basis document, actually a TBD -- that we not only look at that, but we get some assistance from our contractor.

So I did make contact with John Mauro. Lew and I both talked with John about whether or not they could marshal their resources to take a look at that and give us some early feedback on that revision so that we would have that in hand. This may be particularly important because we may have our next meeting actually in Iowa, and we want to certainly be prepared

for that situation.

DR. WADE: And I'd like to go on record as thanking SC&A for their very timely response. I think the Board is in receipt of at least the first comments by SC&A in review of the Iowa TBD. I think it was sent to you maybe yesterday or the day before.

DR. ZIEMER: And I'm going to instruct everyone to turn off their cell phones, and I thought I had done that. I now have turned off my cell phone. It didn't get through the whole "Ode to Joy," which is what it was playing. It seems appropriate, doesn't it?

Other comments in general as we proceed?

(No responses)

REVIEW AND APPROVAL OF MEETING 3 MINUTES

DR. ZIEMER: The first item on our agenda is to take action on the minutes of the last subcommittee meeting. That meeting was held February 7th; that was in St. Louis. I believe you have at least in your folder a copy of those, but perhaps have not had a chance to read them yet. Do you wish to defer action -- or they're actually not very long.

How many have not had a chance to read those

minutes?

(No responses)

DR. ZIEMER: I'm going to def-- just -- if there's no objection, we'll defer action until tomorrow on these minutes so Board members have a chance to read them. I have the advantage of having them in advance.

SCORING METHODOLOGY FOR DOSE RECONSTRUCTION REVIEWS

Okay, let's proceed now to the issue of the scorecard or scoring methodology for the site -- not site, the dose reconstruction reviews. As a backdrop we have the report of the first 20 reviews, and that report has gone through a couple of iterations over time. And you also have, I believe, in your folder a -- yes, a page that came out of our last Board meeting called Methodology for Categorizing and Ranking Dose Reconstruction Case Findings -- or Case Review Findings. Do you all have that? It should be in your folder.

I assume all of these handouts are available to those of you here. If you don't have them, let Cori know.

And then there also is a packet which gives the

-- wait, I'm looking to see. Does this packet go with this document?

MR. GRIFFON: Yeah.

DR. ZIEMER: Yes. Okay.

DR. WADE: This is done by the subcommittee.

DR. ZIEMER: Right, this is a matrix that shows the finding number -- which is SC&A's finding number, I believe -- a brief description of the finding, brief description of NIOSH's response, a ranking -- I believe that was an importance ranking -- a category; and the categories that we selected were technical -- well, they're shown on this sheet, I believe -- technical, procedural, quality control, and regulatory. So those are indicated. And let's see, section -- section is -- remind me, is that external/internal dose?

MR. GRIFFON: Yeah, primarily external.

DR. ZIEMER: Yeah, right. There were some other things there, as well --

MR. GRIFFON: And data collection.

DR. ZIEMER: -- data collection issues, right. And then is this just being passed out now?

DR. WADE: The subcommittee has it now.

DR. ZIEMER: Just as a reminder, we asked Cori

to xerox the checklist that came out of the SC&A document. Remember that they had developed what they called a Case Review Checklist, and they have the -- well, it's a somewhat similar way of categorizing things. There are some differences here that -- they have the categorization of significance -- low, medium, high -- and that sort of thing.

DR. WADE: And if you look at the footnotes that speak to their low, medium, high, it sort of creates a discussion in terms of the subcommittee's --

DR. ZIEMER: Right.

DR. WADE: -- work.

MR. GRIFFON: Which -- yeah, and their footnotes are actually -- they sort of go along with -- if you look at the methodology document where I have my ranking discussion I bring up in there, and ranking is similar to their (unintelligible).

DR. ZIEMER: It's a similar concept, right.

MR. GRIFFON: Yeah.

DR. ZIEMER: Right. Now -- and I don't think it's a matter of us saying we're going to necessarily select one or the other of these.

We may want to use the good features of each. But the issue before us is, number one, what should the scorecard look like. And then we have to apply it specifically to these first 20 cases and see -- and make a recommendation to the full Board on how to wrap up those first 20 cases.

Now let me ask, does anyone need any other documentation at the moment? Do you have everything you need to begin discussing?

(No responses)

MR. GRIFFON: I think we're at a (unintelligible).

DR. ZIEMER: I think it would be useful to talk a little bit about how we do the array. Do you have any preferences for how this would be laid out schematically?

MR. GRIFFON: I mean I was just going to say, just to pick up on that conversation that we had in St. Louis on this, is that I'm not necessarily sure that both of these wouldn't be appropriate, that -- to have our contractor track these things as we go on with more cases. We're up to around 60 now. It gives us a good perspective on the tracking part of this and

trends, looking at trends.
This -- what we came up with with the working group was more -- rather than calling it a scorecard, although it has rankings on it, I was envisioning it as summary report of the first batch of cases, a summary report of the second batch of cases. So that you can quickly get a sense of the types of findings and a short discussion instead of reading the lengthier document to get a sense of what kinds of findings we had. So it's more of a summary report that has some ranking stuff in it, but I think they can work --

DR. ZIEMER: Well, it's certainly a good point, and the contractor sheet actually goes right down the list from their original proposal, which is -- they had indicated which items that they would review and we in fact asked them to make their findings parallel to their original proposal, which is -- and they were responsive to that and that's what this reflects, so that each item here reflects one to one, I think, pretty much -- John, maybe you can speak to that, but I believe that this is every item that's in the original proposal that said --

you said you would look at these items, and here they are.

DR. MAURO: Yes.

DR. ZIEMER: And so there is the advantage of, from their point of view, in each case being able to itemize all of them -- all of the items that they look at.

MR. GRIFFON: The only thing I said that -- that going forward, I really see a benefit to having both systems, and -- but if going forward -- it would be very useful -- at least from my standpoint, I think it would be useful to be able to say, you know, 1.1 on my table, can I tag that to the checkmark under C.2.1 in their matrix, you know. So there's a link -- somehow we create a link so that we know which finding on the summary report goes with which finding in their database. You know, that would be beneficial so we can have -- you know, so that it tracks across systems.

DR. ZIEMER: Well, Mark, we don't cover every one of theirs here, I don't believe. Right? Is there a straight linkage on every one of the -- I don't believe there is on every one of these.

MR. GRIFFON: There's not a straight linkage on -- what do you mean, on questions or --

DR. ZIEMER: Well, no, we don't have an item here for every one of the SC&A items, do we? In other words, if everyone -- if we covered everyone, we could just use the same number.

MR. GRIFFON: Yeah, this summary report I was hoping would have all the findings, and then if they track their findings -- they create one of these summary sheets for each case they look at, and each case may have several checkmarks in it, several boxes checked off as a yes or -- and then a ranking with that box. That's my understanding. And I was saying that it would be nice to have -- like for case one, in my summary report here there is 1.5.

Now this -- I don't think this is all of them, as we discussed at the last meeting. But say it was all of them, for the sake of argument, and there's five findings on here, I'd like that to line up with five spots, ideally. Or maybe there's two checkmarks for one finding, you know, but it would still be linked so that -- you know what I'm saying? So that there's a sense of -- so that you have a descriptive part

in the summary report that goes along with the checkmark in this database, because this database doesn't describe to me -- you know, it says was the appropriate procedure... Well, it does say procedure, but in the descriptive section we might say procedure TIB 0003 or whatever was not adequately applied. And if we see TIB 3 several times, we might recommend to NIOSH that they revisit that procedure.

DR. ZIEMER: Yeah.

MR. GRIFFON: If you just have a checkmark here, you don't capture that.

DR. ZIEMER: Right.

MR. GRIFFON: So I think there's useful -- utility in having it linked is all I'm saying.

DR. ZIEMER: Yeah. But my question was, for example -- just pick out any one of these at random, item 1.5 -- is that unique? The first page of your matrix, item 1.5, is that item unique to a corresponding item on the SC&A Case Review Checklist?

MR. GRIFFON: And maybe Hans can help me.

DR. BEHLING: The way this -- Hans Behling, SC&A -- the way this evolved, it was that when we submitted the first draft of our first 20

cases to both the Board and to NIOSH, NIOSH responded with a list of things that they felt they disagreed with. And the numerical sequence that you see that Mark identified is in fact their sequencing of issues that they disagreed with.

Which, first of all, answers two questions. Dr. Ziemer's asked are all the issues that we raised there? No, they are not. There are certain issues that NIOSH didn't disagree with us up front; therefore, they were never entered onto that disc of issues that they wanted to contest.

And the numbering system that you see there, the first number is usually a reference to the particular case. So you'll see case one through 20, and there may be cases for which there were no comments, and so you will skip a whole number. And so 1.1 will be the first issue with which they took exception to, and it does not coincide with our numbering system. But they are in fact all contained in our system, although there will be considerably more issues that we raised than were identified by NIOSH.

DR. ZIEMER: Thank you.

DR. MAURO: Excuse me, I -- there's one more --

DR. ZIEMER: Yeah, John, go ahead.

DR. MAURO: -- I think it's important to consider.

The form, this form, was written primarily for DOE cases where we have data on bioassay, urinalysis, where in effect a dose reconstruction followed the conventional, traditional protocols as laid out, for example, in OCAS-1 and 2, the two dose reconstruction guidance.

This form is not used for the cases, or that form, where we do our review for atomic weapons employees. See, so it's a whole different class of problems. We don't have bioassay data. As a result, the review -- for example, in one through five -- Mark, for example, in your write-up I notice you've numbered them what, one -- 1.1?

MR. GRIFFON: Uh-huh.

DR. MAURO: The first five turned out to be AWE cases, and each of those deal more with the fundamental models that were employed, and they don't track -- and there -- we do not have a

cover sheet like this in front of any case that was an AWE case because it's not trackable this way.

MR. GRIFFON: I noticed that.

DR. MAURO: So it's important to keep in mind that, yes, I think we eventually can link the scoring here and each of the items that you identify here except for AWEs because each one of those are very unique in the way in which they come at the problem, the way they modeled it. It doesn't go back to OCAS-1 and 2, and it does not really map back in a way that we -- that's --

DR. ZIEMER: Gotcha.

DR. MAURO: -- that's so clean -- so cleanly trackable.

DR. ZIEMER: Thank you. Hans, do you want to add to that?

DR. BEHLING: Yeah, there's more -- there's -- with another small twist to it. In fact, just yesterday I was able to review a dose reconstruction that involved the Iowa facility, and that is obviously one that we want to score according to this plan because we can. The TBD for Iowa pretty much tracks some of the

procedural guidance given in the non-TBD guidance documents. And so therefore we can track that pretty much using this scorecard. So some AWE, like Bethlehem Steel, you would have virtually this whole checklist with NAs because there were simply no monitoring data, there was simply no bioassay data. There was -- certainly many of the issues that we want to look at simply weren't applicable here. But there will be AWEs for which we feel we can use them. So to go backwards again from what John said, not all AWEs are created equal. And so we will have a chance to use them if we consider it appropriate. And Iowa will in fact be considered appropriate.

DR. ZIEMER: Okay, thank you.

MR. GRIFFON: And that raises another question that I had which was that -- might we'd not want to -- I had some editorial comments on this matrix that might -- you know, could it be edited to make it globally acceptable? I'm not sure, you know, but might well be considered be considered, yeah.

DR. ZIEMER: Well, let's -- we'll raise that in a moment.

Let me ask this question now. It just occurs to me that basically this matrix only addresses items that -- where there was some kind of initial disagreement, which means we're not tracking items where basically both groups agreed as to how the reconstruction was done. My question is --

MR. GRIFFON: Yeah.

DR. ZIEMER: Huh?

MR. GRIFFON: That wasn't necessarily the intent. That was more --

DR. ZIEMER: That's how it came out.

MR. GRIFFON: -- just what I had to work with in the working group.

DR. ZIEMER: But the question I'm raising is do we need to in fact have such a listing of those issues that were what the finding was. The finding in such a case might be that we agreed that NIOSH -- or with NIOSH's approach to this. Don't we want to have that tracked, as well?

MR. GRIFFON: Yeah.

DR. ZIEMER: So there would be --

MR. GRIFFON: And I think there are several --

DR. ZIEMER: -- a parallel document or part of this document would be such a listing.

MR. GRIFFON: Right, my intent was to add to this in there, as Hans said, and I've gone through the foreword part a little more now and tried to identify them. The difficulty I have, obviously, is that they're not -- in that document they're not numbered like they were when we had the meeting with NIOSH because NIOSH numbered those --

DR. ZIEMER: Right, because they were specific issues, and they had to keep track of them.

MR. GRIFFON: So I guess we as a subcommittee have to go back and try to separate -- from the text of the 20 cases -- findings, and I think findings -- even when NIOSH said yes, we're in agreement -- well, certainly it was still a finding by SC&A. So I think we need to incorporate that in there.

DR. ZIEMER: Right, where -- there's two of them then. One is where SC&A says we agree with how NIOSH did this.

MR. GRIFFON: Right.

DR. ZIEMER: One is where they say we believe NIOSH did this incorrectly or should have done this, and NIOSH says oh, yes, I think you're right, and we will make that change. That also

is not captured here then.

MR. GRIFFON: That's right.

DR. ZIEMER: So if we want the full story, we need those other pieces to show up here for future tracking purposes.

Okay, Roy.

DR. DEHART: My question, having read this document, is at what point do we prepare a scorecard? Because more than half of these issues are yet to be resolved.

MR. GRIFFON: I know, right.

DR. DEHART: And the final scorecard needs to have resolution, either by the two parties that are discussing it or by the Board.

MR. GRIFFON: Yeah, I guess that's why I was reluctant to call it scorecard is I -- I feel like this is a way to track -- even if they were only preliminary findings, even if after the comment resolution process, NIOSH and SC&A may have agreed and the finding was dropped, I think that's important just to, you know, lay that out. You know, that's what happened to it. That's how it got disposed of.

And -- but on the other hand we've got, as Roy said, a number of these that are still hanging

up in the air. I think we need to make sure we don't just let them -- we don't forget about them, so that's why I was calling it a summary report more than a scorecard. And I think -- yeah, I'm not sure how, but I don't think we rank them until we have a resolution there, final resolution.

DR. ZIEMER: It's the initial report that kicks it all off. You have a whole group of findings, and those are going to be tracked. And I'm envisioning now what we're talking about, because the end product has taken care of -- a number of issues go away. But just because they go away doesn't mean that they shouldn't -- we shouldn't be cognizant of them, and how they were handled.

And the final wrap-up would be, I think, a kind of summary of how all the issues -- some issues were resolved in this way, some were resolved in this way, some may not be resolved between our contractor and NIOSH. I mean we're not going to force resolution where there's valid scientific disagreement on an approach. I think it sits there and NIOSH ultimately says yes, we understand your point, but this is how

we're handling it. And the Board may say that's fine, or we may weigh in one way or the other. But I'm trying to get a picture of what a final report would look like, and it seems to me it could have all of those kinds of pieces in it.

DR. WADE: Right. I mean I think this is a very important discussion, but you've basically asked the contractor to offer its opinion on NIOSH's work, and that opinion stands at a certain moment in time. And I think that opinion needs to be captured, owned by the Board and reported out on.

Then there's a very positive step of improving the process based upon that report. And I think that should happen -- I think the Board should track that, but I think there is a moment in time when the Board needs to say here is our summary view of NIOSH's performance on these 20 dose reconstructions.

Now again, whether you're in a position to do that now or whether you want another iteration is for you to decide. But right now, as I understand it, there is no resolution activity going on. The material sits before you at this

moment in time.

MR. GRIFFON: Yeah, I think also I -- just to reflect back on what we wanted this whole thing to be and, you know, we originally said that if we had our -- you know, in an ideal world -- maybe not so ideal world because the other program did it after the fact. But if you had all the cases done and we were going to sample 2.5 percent and do the -- you know, audit them all at once and get a sense of, you know, a random sample -- maybe stratified, however -- but get a good sense across the board of what --

What worries me here I think is, you know, we've got 20 cases. We know there were some conditionals on these cases that were -- they were, you know, probably low-hanging fruit to start with, so there were certain conditionals. On the other hand, I think we need to give a progress report, and possibly part of that progress report is recommendations. So far we've seen some things already that we think NIOSH should modify or, you know, and it's important to get -- that's part of the reason for doing it while they're still doing other

DRs. It's to improve the program like you said Lew, so...

DR. WADE: Right. Just for clarity purpose, John, in your work you have filled out or you have provided an evaluation of each of the 20, and then you've provided a summary of those 20.

DR. MAURO: Yes.

DR. WADE: And that exists as -- that is your evaluation.

DR. MAURO: Right, the score -- the so-called scorecard that is in front of the report, the large, three-volume report. In the front of every one of the cases there is this form filled out except for AWE ones. Okay? And this is our attempt to try to come up with a scorecard regarding the performance of that individual case, the way it stacks up against these various criterion, some of them. And this has been formed in a way where it goes into our database, and it can be collapsed because each of these individual ones are case-specific, and therefore, are under the Privacy Act. However, when we collapse them -- because it can be rolled up -- and say okay, these 20 can be collapsed, and then the next 20 can be

collapsed into that. So in the end, when we're through, there are only supposed to be two. In theory we could have a single page which would be a scorecard on how well did they do regarding missed photon dose. How well did they do regarding internal dosimetry issues, and the number times we found a different category of problem and whether that problem was minor or substantial.

DR. WADE: But at this moment in time you could do that for the first 20?

DR. MAURO: We have already.

DR. BEHLING: In the executive summary you will see that same scorecard which will represent the summation of the first 15 cases. In the executive summary of the report we have already done that.

DR. WADE: So it seems to me the task before the Board is two-fold. One is to issue its view now of how NIOSH did on the first 20, armed with the contractor's report. And then to turn its attention to how to make the process better by making recommendations to NIOSH on specific issues or things it needs to concentrate on. And so -- I mean I think both

of those tasks are before the Board now.

DR. BEHLING: May I make a comment on that very issue of how do we go forward? The problem is, if we identify -- let's say in the first 20 cases there were problems as you see in front of you, or deficiencies, issues that we identify. And of course one could look at those and sort of say well, how do we fix that? We see people not following the procedure or the procedure may have had an error, or certain other issues.

However, when I realize -- for instance, now I'm working on the second 18 set. Those cases were done before this first set of 20 was even done, and they may have even been performed prior to the first 20 dose reconstructions. So the question is how does one go about changing something that may have already, in time and space, preceded the ones that we have evaluated for which we will make recommendations for change. So that's the difficulty.

DR. WADE: True. And there's no answer obviously to that conundrum other than...

DR. MAURO: One more observation that I think is very -- I think, Mark, what you've done is

part of a very important part of the process -- that -- what you've done is say okay -- and I think it's very different than what we did with our scorecard, both of which have an important role to play, but different role. This basically is a tool that will help to capture the degree to which we're converging on resolution of issues that we -- there were some differences when we began. And through a process, we're converging on resolution. Quite frankly, right now when you read through your mock-up there is a process at work where these issues are being resolved.

Now -- however -- and so this is a tool for closure (indicating). This is not a tool for closure (indicating). This is something completely different. This is a way of determining at the end of the process of the 62, when we're all done, we're going to be able to make some global statements regarding what we found out in our reviews; where there might have been some I guess trends, recurring themes which would provide insight into areas where perhaps some improvement -- areas of improvement.

So it's a different -- it's a different product and serves a different role on the program. Certainly an effort could be made to try to map one to the other, to the degree it can be done. My guess is it can be done. Whether or not it's important that it be done, that's another question. That is, I think that this is really a tool for closure (indicating). That is where are we and what's still outstanding?

This is a different tool (indicating). This is almost like an audit report that says when we're done with the 62, what did we learn. I don't know if that helps any.

DR. ZIEMER: All right. John, let me ask you this then. From SC&A's point of view this basically gets completed after you've gone through at least one iteration, or two?

DR. MAURO: As many as you'd like.

DR. ZIEMER: Or as many, but at some point the process has to come to a halt --

DR. MAURO: Yes.

DR. ZIEMER: -- and this gets filled out. Actually in each case you've gotten feedback, and you come with a report and this is filled out. Now obviously we can go back and say

well, go through that process again and maybe this would change a little bit. But what we have right now is a document which is based on some resolutions having occurred, and they no longer then show up as issues here.

DR. MAURO: In fact, this particular form reflects the expanded review cycle. That is the ones that are completed in the report you have before you.

DR. ZIEMER: Right.

DR. MAURO: In fact if you read through the 20 cases there's a lot of dialogue related to the expanded review -- where we achieved closure, where we agree, where we changed our position, where NIOSH has changed its position. These forms, as filled out in front of each case and as rolled up for the full set of the first 20, reflect as best we can that expanded review process. So this represents where we are right now in time.

DR. ZIEMER: Right.

DR. DEHART: It would seem to me that we already have a report, and that's the report of the contractor.

DR. ZIEMER: Uh-huh.

DR. DEHART: That could be summarized for each of the cases and not attempt to find fault or anything else with NIOSH or with the contractor. But that's the report we've been given. We would then follow on that report with another area that would address the recommendations, et cetera, and tell the process that is now on -- been going on between the contractor and NIOSH to resolve as much as they can. And that would be the report for the first 20 cases.

DR. ZIEMER: Right, and that's already occurred in the first 20 in terms of dialogue between the contractor and NIOSH -- or NIOSH's contractor, as the case may be -- and has become a kind of template for the future where you expect that dialogue to occur, the factual accuracy checks and so on. And then, as you say, at some point we have the report, which will include the individual and the summary things here.

This then would become the document that helps us come to some kind of closure, I think, on that, that -- where we could go through each case, or we could roll them up.

MR. GRIFFON: Yeah, I think, again, if I -- for the next set I would propose the -- I mean I obviously like the matrix. I sort of came up with the idea, but if -- you know, to go -- going forward with it, I would say that I want to have all the findings in there. And I'm not exactly sure of the answer to John's question, but I have a feeling it's going to be important to be able to tag those to his matrix. So I don't know -- I think it would be worth doing just to have it there in case we'd want to look back at it later.

For one thing, I can see -- in the resolution process -- if we initially have six findings for case one and the last five and six drop off, and they were tagged on your summary matrix as five and six in certain check boxes, and you see the five and six drop off on the next report, you can follow it through. You know, it's a good way to follow through what's happening, as far as the resolution process, with all the findings.

But also in the next round I wouldn't want to just do the contentious findings. I'd want to summarize all -- you know, all the findings.

And I'd like to add those to this matrix for the first 20, too, but it involves going back through the meat of that report to do that.

DR. WADE: If I could offer up sort of an observation, you have your contractor's report on the first 20, individual and summary. Now it's for the Board to take that and to do something with it. Maybe you accept it; maybe you modify it slightly. I mean I think that's something that the Board needs to do. It could be the Board will decide to withhold a significant statement on NIOSH's performance on dose reconstruction until the 62 are done. You know, that's your option.

You have now a third of the work done. You have your contractor's report. You could offer a statement now, or you could wait. That said, you have the -- I think the more important aspect of the work, and that is how do you make the process better. And that's what you're talking about now. That has to go on, but what the Board says relative to NIOSH's performance, do you say it now; do you wait for the 62 to be done? That's something that you need to discuss and decide.

DR. ZIEMER: Well, let me suggest as a way forward here, one of the issues was in fact the scorecard issue. In fact, one of the reasons we sent things back was not only to resolve some issues between SC&A and NIOSH, but was also to ask the contractor to relate their findings to that original list. They may now have done that.

And I'm wondering if we can't, as a part of our recommendation here or as one recommendation, recommend to the Board that in fact this scorecard that has been developed by SC&A -- that they continue to utilize that as part of their reporting process to us in the future, both for the individual cases and for their summary. Do you wish to make such a recommendation that this be still part of the process, the SC&A checklist?

DR. WADE: Again, what I would suggest that the subcommittee do is -- in this piece of paper there's a great deal of intellectual content. And I think you own this, and I think this is a very powerful piece of paper. Do you feel that this piece of paper is reflected in the footnotes to this? If you do, then I think

you've got closure. But I think there is a discussion to have about that, and I don't think that discussion has happened yet.

DR. ZIEMER: This -- the discussion here on the ranking of the findings really shows up in the other document in terms of how we wrap things up.

MR. GRIFFON: I think one difference that Lew's pointing to is -- and I actually -- if I remember this comment right, is -- a couple of people brought this comment up on the other matrix, was that we should probably have -- because if you remember the way I was ranking, it was not only whether a finding had a significant impact on the dose, but also was it -- did it impact only that case, possibly cases from that entire site, or broader to -- was it a programmatic issue? Was it a -- you know, possibly all cases?

DR. ZIEMER: Uh-huh.

MR. GRIFFON: And then someone said well, maybe you should have a column -- an extra column in there that says, you know, a ranking and whether it's a broad finding, a site-specific finding, or a case finding, or something to

that effect. I think the footnote on this other matrix sort of misses that level of this ranking.

DR. WADE: It does. Now if you want that --

DR. ZIEMER: This is based on individual cases here.

MR. GRIFFON: Right. Right.

DR. ZIEMER: It doesn't speak to the impact on --

MR. GRIFFON: Or -- or the poten-- I guess, you know --

DR. ZIEMER: Potential impact?

MR. GRIFFON: -- I was thinking if it has the potential impact, you know.

DR. ZIEMER: Yeah.

DR. WADE: More comprehensive.

MR. GRIFFON: Right, right.

DR. ZIEMER: On many cases.

MR. GRIFFON: Is it a finding that could be -- could it have been --

DR. ZIEMER: Be widespread, yeah.

DR. WADE: I think that's a very important finding. The question is do you want the contractor to do that or do you want to do that, based upon the contractor's work for you.

And I think that's not a trivial point.
Other than that, I think they track quite well.
MR. GRIFFON: Yeah, I agree.
DR. ZIEMER: Let me ask a question here, John -- or maybe Rich wants to address this, too -- but when you do your wrap-up, what meaning would these footnotes have in a wrap-up document? Because it looks like it's very individual, case-specific.
DR. BEHLING: Yes and no, 'cause you can have a wrap-up for the individual as well as for the collective. For instance, if we find -- in an individual for a single dose reconstruction -- a series of -- let's call them deficiencies that have moderate impact individually. But taken collectively -- let's assume that there's an error in missed dose, there's an error in neutron dose, there's an error in photon dose, any one of which singly would have only marginal impact on the collective dose for that individual organ.
But when you tally them all up, they may have in fact now a significant impact. And so we couldn't -- when I tallied these up, I looked at the magnitude for each individual deficiency

that each checkmark, and then I tallied the number of checkmarks in that category of low, medium and high and came up with some understanding of whether or not this could potentially, in combination of these deficiencies, affect that individual case.
For all of the doses, no, those deficiencies simply don't have much of a meaning because we're talking about does it affect the individual organ dose for that individual or -- and/or the probability of causation which determines whether or not the individual would be compensated.
But when we roll them up in all 20 cases, those numbers have very little meaning other than to let you know that there are errors here that are prevalent in some areas and perhaps point to a systematic problem that may involve, for instance, interpretation of a given procedure that is being misinterpreted by the dose reconstructors. And we've already found that there's at least three or four guidance documents that have consistently misrepresented -- or misinterpreted by dose reconstructors, and that allows us to do that. When I see, in

missed photon dose, a constant checkmark and I've -- now working on the second set of 18 and I see the same error over and over again and my root cause analysis says the problem is the guidance document, the TIB. And so it allows me to do that.

But to answer your original question, no, those high, medium and low do not have any meaning when we wrap up all of the 20 cases.

DR. ZIEMER: But the prevalence number may. The prevalence --

MR. GRIFFON: Right.

DR. BEHLING: Yes.

DR. ZIEMER: -- itself may tell you something.

DR. BEHLING: Yes, it will point to a certain systematic problem.

DR. ZIEMER: In other words, there may be a medium deficiency that's occurring again and again and again.

DR. BEHLING: Yes, and we've already found that there are certain procedures that are consistently being misinterpreted.

DR. ZIEMER: Rich, did you have a comment? Please, Rich Toohey.

DR. TOOHEY: Yeah, Dick Toohey, ORAU team --

representing myself obviously, not NIOSH, in these comments. But actually what I'm going to remark on was just touched on by Mark and Hans and that is, especially on summary statistics on this, I can't tell whether there is a -- I'll use the term error, or at least disagreement in what is in the procedure -- and certainly the Bethlehem Steel or the Savannah River max dose would be examples of them -- and that appears on every dose reconstruction review that used those procedures.

Or a very different one where one of my dose reconstructors did not follow or misapplied a procedure which, in and of itself, is okay. And those things require very, very different corrective actions if we're going to improve the system. So I think it's very important somehow or another to catch that sort of thing, especially in the summary statistics. Because if you just say well, you know, 60 percent of them had this problem, then -- like B -- what was it here on internal dose, F-3, was the dose value correctly derived, that doesn't tell me if the dose reconstructor misused the document -- the supporting document or if the supporting

document was at issue.

MR. GRIFFON: Right, that's why I was saying there's a utility with both, I think, because -- yeah, prevalence certainly may -- you know, as we see that prevalence out of 60 cases we may say, wow, this photon dose is coming up an awful lot, you know. Then I might want to tag back to the full matrix and say is it because of misapplication of a procedure or is one procedure always having a problem? And maybe it's not the users; maybe it's the procedure, you know, something like that, yeah.

DR. TOOHEY: Now there's another issue on that, and that is -- well, it's actually the issue in TIBs 1 and 2, the maximum internal dose, where the issue is using ICRP-30 models versus ICRP-68 models. And we shared in TIB-1 that the majority of radionuclides we used at Savannah River using the ICRP-30 model to derive intake was actually claimant-favorable. Now granted it's not the best science, but since the idea was to develop maximum internal dose estimates, claimant favorability we thought was more important. So that's another issue that would need to be considered, maybe more appropriately

at the resolution stage.
But again, we would just have a checkmark that the dose was not correctly derived. Well, correct by what standards, best current available science or making claimant-favorable assumptions in the interest of providing a maximum dose estimate?
And one final thing, if I may. There's one thing on here under B, review of interview and documentation provided by the claimant, B-1, did NIOSH address all work history, dates, locations of employment reported by the claimant? That's really not a NIOSH issue. DOL makes the call on covered employment. So if we see in a CATI interview a discrepancy between the DOL submittal on the case, the only way to appropriately address it is to refer the claimant back to DOL to raise the issue.
DR. ZIEMER: Which item is that, Rich?
DR. TOOHEY: It was on the first page, Paul, under -- it's B, review of interview and documentation provided by claimant, B-1.
MR. GRIFFON: I think that was a little -- I know what you're saying, Dick, and I agree with that on the DOL perspective, but I think that

point was getting more at do they consider the work history in the -- maybe in the appropriateness of dose calculations. For instance, was there certain coworker data that could have been used? Based on their work history, they shouldn't have used operator data if they had a security guard or something like that. I think that was --

DR. TOOHEY: Oh, okay.

MR. GRIFFON: I think that's what --

DR. ZIEMER: It's within the accepted -- I don't think this was getting at quite what you were talking about, whether it’s --

MR. GRIFFON: I don't think it --

DR. ZIEMER: -- the right period. I think we're accepting what DOL --

DR. BEHLING: Yeah, and also the issue of requesting dosimetry. If, for instance, a person worked at Los Alamos, and then, for instance, went to Hanford, it is NIOSH's responsibility --

MR. GRIFFON: To get all of it.

DR. BEHLING: -- to secure those records.

DR. ZIEMER: Right, that's the nature of it, yeah.

MR. GRIFFON: Yeah, from that standpoint.
DR. TOOHEY: Okay, fair enough. Thank you.
DR. ZIEMER: Thank you, Richard, for those comments.
Well, one of the questions that arises in all this is -- because we end up with a -- we end up, as it is right now, with a kind of a score sheet. And then we have this document which is the issue resolution tracking and so on, which is -- and the ranking of the seriousness and so on.
Who -- one of the questions is who's going to do this? Does this now become the job of the contractor as an added tracking? I mean, Mark, you've kind of done this by hand, but as we go forward, if we say that this is the kind of thing we want, are we asking -- do you envision asking the contractor to take the findings that come and the issues that are raised by NIOSH and doing something like this, which is almost an additional subtask within --
MR. GRIFFON: Maybe John...
DR. MAURO: Effectively, it has been done. Unfortunately, it's imbedded in 300 pages of --
DR. ZIEMER: Right, of -- of --

DR. MAURO: -- But in theory, as we write our report -- 'cause I did the first five -- I recall having the list of --

DR. ZIEMER: Right, you had a list of questions, NIOSH had a list of questions --

DR. MAURO: -- right, had it right next to me while I was rewriting my cases one through five. And as soon as I hit one of the -- NIOSH's comments, I addressed it, said during the -- during the review meeting on January 12th the point was made, and then I resolve it right -- well, I tell -- I explain right there what our understanding is on the status of that issue. In most cases it was a matter of yes, we agree with the comment as -- as -- I remember in the case that I did, and we withdrew it. Or it was agreed that this is an open -- the oro-nasal breathing, this is an open item. They're right -- as it stands right now, NIOSH is looking at the issue, whether or not that is something that needs to be factored into the models or not. So in other words, I did the best I could, just as you did when you went through the document and you pulled it out.

DR. ZIEMER: But you're effectively doing this, in a sense, now.
DR. MAURO: It's in there. It's a matter of --
MR. GRIFFON: I guess what we could -- what --
DR. MAURO: -- we extracted -- but you may prefer to do it, because this way the Board, you know -- whatever you'd like to --
MR. GRIFFON: Yeah, I think there's value to -- I mean as we've said before, this is our report -- the Board's report, not the subcommittee's, but the Board's report. But I think we can maybe ask our contractor to write their reports such that it's easier to extract these findings. That might be -- and that's just a logi-- you know, a logistical thing I think, so that we can make sure our matrix is -- has everything and is comprehensive.
DR. MAURO: I'd like to add that that would be very easy for us to do, since we're doing it anyway. It's just a matter of, as we're writing, pull it out.
MR. GRIFFON: And that's part of my reason for --
DR. ZIEMER: You could put it right into this kind of a format.

DR. MAURO: Very definitely.

MR. GRIFFON: And that's part of my reason for thinking of linking these to the checkmarks in this other table because you've just got layers of -- there's no lost findings, so to speak, you know, so... But I think the subcom-- I mean my feeling is that if they have that report, they basically -- and they've laid out the findings so that they're very easy to find within the bulk of their report, I think it's worth the subcommittee making the effort to pull those findings and construct our matrix as we go because then we're getting into the meat of the issues, too. We're looking at the report more in depth, so I think that's important, yeah.

DR. ZIEMER: But a part of this is just the -- sort of the physical work of doing it. I mean we could easily ask the contractor, I think, to actually generate this if they have the wherewithal to do it. I mean rather than us to sit there and retype things or -- do people still use that word, type? To re-keyboard things -- well let's see. Where are we here? Other comments or suggestions on --

DR. DEHART: If I'm hearing correctly, we've got a two-part, so far. We've got the report that comes in -- the main sheet from the contractor for each of the cases. And then that's going to be followed by a second portion of the report that will have something similar to the scoreboard, scorecard or whatever you want to call it.

MR. GRIFFON: The Board summary report.

DR. DEHART: The Board summary on this. And any recommendations would be, I think, separate yet because the recommendations aren't here. So the third part would be a list of recommendations. And this, in reality, is a work in progress continuing as we work each section. So this would be for the first 20. Then there would be a follow-on with the next 18 cases.

DR. ZIEMER: That's right, that's right.

MR. GRIFFON: I sort of envision this matrix, this table, having a front-end report -- maybe one or two pages -- that said out of this 20 -- we've reviewed the 20 cases. Here's what we found, like you had indicated before, and if we had any recommendations -- preliminary

recommendations for changes, and then -- and this -- you know, this matrix would be like a table with that report. That's the way I envision...

DR. ZIEMER: The cover page, which is kind of like an executive summary, what do you envision that saying? Is that -- for example, would it be like a statistical summary of the findings, or numbers of points where there's agreement or disagreement, or kinds of findings, or numbers of significant findings? What are you talking about when you say a cover sheet? What would be the content of that?

MR. GRIFFON: Right, I --

DR. ZIEMER: And this is not just for Mark. I mean --

MR. GRIFFON: Yeah, I'm just -- I'm sort of --

DR. ZIEMER: -- I'm asking us to --

MR. GRIFFON: -- thinking out loud here, but --

DR. ZIEMER: -- think about what is it? I mean -- all right, this is the meat of it, but what do we do with these items? Are we saying, okay, here --

MR. GRIFFON: Thinking out loud here, but --

DR. ZIEMER: Are we going to flop this down in

front of the Secretary and say well, here's our findings. He'll say, well, what does it mean?

DR. WADE: Well, if I might be allowed an observation. I mean I think -- again, if you look at SC&A's footnote three -- I mean if you get to the root of the cause of auditing this, the question is did they find deficiencies that impacted the compensability of the case, yes or no? I mean if the answer is yes, I mean I think that's terribly significant. If the answer is no, I think then you can move down to the next level.

But I think you're -- and I like your words, "here's what we found," needs to start with the issue, are dose reconstructions being done correctly as it relates to decisions on compensability. And then you can work your way down, you know, to more esoteric considerations. But I think it needs to start with the big question, did they get it right or not.

DR. ZIEMER: Lew, you're suggesting that as a starting point we would -- we have 20 cases. Question one, based on the findings of our auditor, were any of these -- did any of the --

do any of the findings affect the compensability of cases. And I think more specifically we're asking are there cases that should have been -- where there should have been compensations that weren't.

But I suppose we also would like to know if we had errors in the other direction, even though you're not going to go back and --

DR. WADE: True.

DR. ZIEMER: -- take the money back.

DR. WADE: But I think it starts with the big question, and then you go to the next -- and it sort of follows their three, two, one, or it also follows your severity measures. And I think you should report out on that. I think it ends with we think the process would be improved by these recommendations being followed.

So I think it goes from sort of a headline down to the work, and I think that's quite reasonable. Whether you do it at 20 or whether you do it at 62, I think that's a discussion, but I think that would be a reasonable expectation of the work of the Board.

DR. ZIEMER: For example, one might have a

report that said these 20 cases -- one, the compensability would be altered in one case or no cases or three cases or whatever it is. And then work your way down to less significant issues. Although compensability has not been affected, the following concerns are raised in terms of procedures, calculations, whatever it may be.

DR. WADE: Right, just to follow SC&A's words, the next bullet could be, "While compensability wasn't affected, there was a deficiency that significantly impacted the dose." Well, that's something to note -- down to their third, which is it has only marginal impact on the dose. And then to me the big second part of it is now here are things the Board thinks NIOSH needs to improve upon as it practices the art of dose reconstruction. And that would be -- that would flow from this as among other things.

DR. DEHART: I don't know that we have the summary sufficient to answer the first question.

MR. GRIFFON: Right.

DR. DEHART: We don't know whether this will affect the compensation.

DR. WADE: I do think we have a summary from SC&A now available to us, right?
DR. BEHLING: Right, and again --
DR. ZIEMER: They only use the word "may" affect it.
DR. BEHLING: I think that's exactly right because I can look back at the first 20 cases, and I've -- I'm the person who does all the QAs and most of the ones that you see in front of you so I'm quite familiar with it. And there's one case where the number of errors could have potentially pushed the guy over the 50 percent mark. I did not run the POC calculation --
DR. ZIEMER: Do we have your wrap-up sheet on the latest version?
DR. WADE: We can get copies of it.
DR. BEHLING: I brought my report with me, but here's the problem that can complicate matters. In that particular case, I saw some deficiencies that were very definitely claimant unfavorable, meaning that they underestimated those because they failed to account for missing neutron doses, missing photon doses, et cetera.
On the other hand -- and this is where I've had

a serious discussion with NIOSH people -- they were extremely claimant-favorable because they thought this was not a compensable case. Now when you ratchet up the other doses that were legitimately underestimated, they will simply then say you know that hypothetical exposure that we gave you 17 rem for for the 28 nuclides because it was a reactor facility? We're going to take that away from you. And that may just turn out to be the exact number of rems that you would have added legitimately.

So the question of is it compensable as a result of these deficiencies, the answer is we don't know because chances are when you sharpen your pencil and you say now we're coming up to that 50 percent mark and best estimates prevail and best estimates usually don't allow you to give you a hypothetical, you're back to square one.

DR. ZIEMER: We understand that, and I think -- in any event, it wouldn't be your job to make the determination of compensability anyway, but to raise the issue, and that would go back to NIOSH as part of their ongoing quality --

DR. WADE: We do have this -- we do have the

summary sheet, and if John has it, we can get a copy.

DR. ZIEMER: Yeah, I don't think I have my copy here, but I was just -- for example in the first 20 cases --

DR. BEHLING: I would suggest we look at case number six.

DR. ZIEMER: Well, I want to see what the wrap-up looks like of everything.

DR. BEHLING: These are the wrap-up.

DR. ZIEMER: Do I have the -- this is --

MR. GRIFFON: I don't see any highs in there.

DR. WADE: No, I didn't see any highs. When I looked at it there were no highs.

DR. BEHLING: No, as I said, I tried to stay away from the collation of numbers in the summary sheet. You will see that on the individual sheet.

DR. WADE: Right, that's understood.

DR. BEHLING: And I would say for that you may want to look at case number six.

DR. WADE: Well, let's start with the summary sheet. Maybe I can get that copy.

DR. BEHLING: You will see --

MR. ESPINOSA: By chance was that e-mailed to

us?

DR. WADE: It was certainly given out at the last Board meeting.

MR. GRIFFON: It was e-mailed, too.

DR. BEHLING: If you look at some of these, there were a whole bunch of mediums, and when you add them up, the mediums could potentially -- this why I have a question mark here.

DR. ZIEMER: Okay, but on the summary sheet, this says 15 cases -- oh, that's 15 cases that -- where you actually --

DR. BEHLING: Yes, starting with case number 6 through 20.

DR. ZIEMER: Right, would you all like a copy of this summary? That would be the...

DR. BEHLING: Just two sheets. But if you look at the individual case and the potential impact of multiple deficiencies, you'll see that -- and this is where we see the question mark.

DR. ZIEMER: All right, this is the -- well, September 7th was the date that they received them. This is the report dated February 2005, audit of first 20 cases.

MR. GRIFFON: Hans, maybe you can answer a question while they're passing this out. Why

doesn't that one on case six get captured in the summary matrix? Shouldn't there be a one in the high field under -- or no? I'm --

DR. BEHLING: Because we really wanted to just collate the column and say they were -- eight deficiencies that were in the medium range, so forth, and I can't go from one to the other because one cancer has nothing to do with the other cancer.

MR. GRIFFON: I see. Okay. Okay.

DR. BEHLING: So in fact on that summary checklist we will delete that -- those footnotes because they do not apply. This is strictly a collation of deficiencies that define the first 15 cases.

DR. ZIEMER: Well, in fact maybe your roll-up sheet needs a little bit -- I'm just wondering if it needs to be reformatted a little bit where it's a -- specifically a summary where you indicate that you're telling us the number of cases that fit into these categories. And we would understand that the footnotes still apply to the individual cases. But -- but -- and then we're looking at prevalence of a finding, which --

DR. BEHLING: Yes, the checkmark has been replaced by a number now.

DR. ZIEMER: Right. So rather than this being a case review checklist, this now is a summary of case review checklists -- or something that differentiates it and gets interpreted a little bit differently, perhaps.

But presumably, based on this, we could make certain statements about -- of the type that you were talking about in the numbers of cases where their -- the compensability may have been affected. We're not going to necessarily say it did. We're going to say -- "may be affected" is the terminology they use.

MR. GRIFFON: Again, I think Lew asked the right question at the end, too. You know, I don't disagree with that format, it's just a question of when should we do that type of roll-up. And these 20 cases I don't think are representative at all of the whole --

DR. ZIEMER: No --

MR. GRIFFON: -- the whole system.

DR. ZIEMER: No, but one of the issues is what do you do with the first --

MR. GRIFFON: Right.

DR. ZIEMER: -- how do you summarize the first 20?

MR. GRIFFON: I understand.

DR. ZIEMER: Can we not say that this is what's been found so far? In these first 20 cases there were --

MR. GRIFFON: Yeah, yeah, I --

DR. ZIEMER: -- there were findings of this type.

DR. WADE: I would think -- again, taking high purpose to our work, at a minimum we need to use what we learn on the 20 to improve the process, so that has to happen regardless. When you write your summary, you could write it at 20. I assume there was a certain wisdom when you did the 62; you created that unit. I don't know if that becomes a logical point to write your summary. I don't know, but I think it's an issue that needs to be discussed.

DR. ZIEMER: And keep in mind -- and I think Hans raised this point -- that many of those subsequent reconstructions were done perhaps even earlier than these, so these findings don't necessarily impact on those, but we're still looking forward to what is being done in

the future. And in some cases if there was a finding of either error or assumptions that affect compensability, NIOSH has the ability to go back and pull cases several cases back and re-examine them -- those that perhaps were not compensated.

DR. BEHLING: In fact, they will not impact the first 4800 cases that have been done to date.

DR. ZIEMER: There you go, except insofar as they do go back if there's --

DR. WADE: But they could.

DR. ZIEMER: -- they could go back if there was something that arose that said yeah, we need to go back and revisit some of these.

MR. GRIFFON: Yeah, I'm not saying that we shouldn't summarize. I'm just saying that we may want to consider caveats in how we state it because even the first 60, I believe, were still --

DR. ZIEMER: It's still a small --

MR. GRIFFON: -- if you look at the number that are -- were greater than 45 percent POC -- I mean certainly we're still going to have a lot of cases where they're going to use the 28 radionuclide worst case assumption. But they

haven't gotten down to the -- or we haven't seen that many of the cases where they had to sharpen the pencil and where they got close to that 50 percentile. So I think -- you know, the summary's not a bad thing, but I just think people also have to understand what we were sampling from. I think that's important to somehow state.

DR. WADE: And there's still two intellectual issues that I think are before you and sort of let me restate them. You have the issue that Hans is bringing to us, and that is that on an individual case there could be a number of medium categories that might, acting together, elevate the concern.

And then you have Mark -- or the group that put this documents together concern is that is on an individual case saying we found something and it is of great concern to us because we think it could well affect a number of other cases. I think that's terribly important intellectual content in what you have and you need to capture it and do something with it. The question is do you have the vehicles in place to do that now, and I think that's

something the subcommittee needs to talk about.

DR. ZIEMER: Well, it's not clear to me that we are at that point. I mean...

DR. DEHART: Well, again, I bring up the issue that there has not been full resolution, even within the 20 cases, so it makes it hard to determine whether or not the contractor will change or NIOSH will change. Obviously some changes will occur, with over half of the individual cases saying that we need to look at various other areas. Twenty is a small number, but we need to report out something in terms of we have initiated an audit process, so I think we need to say something to that.

MR. GRIFFON: I mean I think there's -- I think we can certainly make some -- I was more concerned with summary statistics than with some findings that we think -- for improv-- you know, areas for improvement I guess is the way to state it.

I think we have some of those, and I think at the meetings with NIOSH and SCA I think we ventured upon several of those. I mean we -- you know, one that comes to mind for me is the way the DR report is written. And in the

meetings NIOSH conceded that they need to do a better job at communicating with the receiver of that report. Not only the receiver of that report, but also the report itself has to be -- lend itself better to an audit.

There are just so many things that aren't stated in the report that for someone just to look at it in the public, or even a health physics contractor, it's difficult to walk it through and recalculate the same -- come to the same conclusion. So for public purpose and for the audit purpose, we think -- I think they've accepted that the DR reports need some revision in formatting and revision in content.

It doesn't mean they don't have the content and didn't do the work correctly, but it wasn't really presented very well. So I think that was an important thing that came out of some of our meetings. And that's certainly, I think, supported -- as an example.

DR. WADE: And more than just an example, there are many positive things that have come out of this process that have made dose reconstruction better, no question about that. I don't think there's anywhere we're capturing that, either.

DR. MAURO: If I may, by way of process, one of the things I think that needs to be brought into the picture is the task three report, and I think Richard made a very good point. There's a very important distinction to be made between do we have a generic problem that has to do with the procedures. So all of a sudden what I see here is -- what's happened -- you know, it's so hard to step outside and say wait a minute, where are we and where are we going. The actual dose reconstruction audit reports in the form they have taken, and the ability to try to let it tell you a story, it's trying to speak to you. You have to not only listen to what is coming out of the report and also the dialogue with NIOSH and the notes that have been taken, but then there's another story that comes out of task three which starts to get to root cause issues. And it's the confluence of our report with the expanded review cycle with the results of the task three that starts to converge. And what emerges from it is a story. So what I see here is the process is taking form, almost in a self-organizing way whereby it's the confluence of this that starts to

emerge. Where do we just have errors that were made that weren't caught and they were one of a kind, and they have to do a little bit with some -- let's say better QA, should have caught that one -- but it's nothing systemic. It's just something -- what I mean by systemic, it doesn't necessarily go back to a procedure that is misleading or confusing, because we do have a lot of that.

So what I'm getting at is, unfortunately the whole story is not told just from only one dimension. It's coming out of multiple dimensions that are converging, and the task three report is very much part of this process. So I think that a lot of what you are looking for is going to emerge when we start to talk about task three.

MR. GRIFFON: And not only that but the site profiles as well, John, if I can add. I mean some of these things have been held back because they were pending site profile review, Savannah River and Bethlehem Steel, right?

DR. MAURO: There's no doubt --

MR. GRIFFON: So there's --

DR. MAURO: -- that we're starting to see the

site profile reports as another set of procedures, only specific. So I say our task three report is just really part of a bigger array of guidance and background information as to how the dose reconstruction -- it's -- it's amazing how such a -- it's a -- when you start to put your arms out and realize you can't really stretch your arms big enough to bring it all in, but it's happening. It's happening.

DR. ZIEMER: Hans?

DR. BEHLING: And I just want to give you an example, for those who do have the report available to you. I would ask you to look at case number 16, 18, 19 and 20, I believe. And you will see the same series of errors being made in all of those particular dose reconstructions, and they all come back to two particular procedures, OTIB 0008 and OTIB 0010. And it is a consistent error that has been -- and I see now even in the next 18 cases. And these are systemic errors, but they're not linked to anything other than a flawed guidance document that is poorly written and poorly understood. And so I looked at the people and said, well, you have four or five different

people looking at the same document and making the same mistake. And I have to say the fault has to lie in the document because we have four intelligent people, well-trained health physicists, who can't decipher the guidance that's being presented to them.

MR. GRIFFON: That's another -- another aggregate finding.

DR. ZIEMER: Well, here now you have the wrap-up of the first 20 cases. That is the scorecard wrap-up. And for example now on item A-1, did NIOSH receive all requested data. This would say yes, in 14 of the cases they did, in one case they didn't. Is that how we interpret this, and so on? And what's the significance of that when you say that is low. Right? And so on. And there's some of these where it's not -- NA is not applicable, I assume?

There's -- none of these -- let's see, there -- so, for example, you're saying that there were 42 deficiencies where the impact on dose was marginal?

DR. BEHLING: No, I --

DR. ZIEMER: No? What --

DR. BEHLING: I have the -- sorry. I have not really had a chance to look at this. Somehow or other this was transcribed badly in the final revision. Those numbers -- 46, 42 and four -- really don't -- I think they fall in the --

DR. ZIEMER: That's not the sum of what's --

DR. BEHLING: Yes, they fall under the first three columns -- yes, NA and no.

MR. GRIFFON: Yeah, they're shifted -- they're shifted --

DR. ZIEMER: Oh, they're shifted over.

DR. BEHLING: Yes, they were shifted. And as I said, I did not intend to even -- I don't know who -- it left my hands and was in somebody else's hand for revision. Those numbers of low, medium, high should not exist.

DR. ZIEMER: Okay.

DR. BEHLING: I don't want them in there because you cannot collate these numbers. They have no meaning.

MR. GRIFFON: That's what's confusing.

DR. BEHLING: Somebody ended up doing something here that they shouldn't have done. They were not -- this is not my --

DR. ZIEMER: Okay, so those three numbers --
DR. BEHLING: Yes.
DR. ZIEMER: -- in item H are the sums of the audit responses.
DR. BEHLING: Exactly, and all the numbers are -- under the low, medium, high, they should all be blank. They -- they have no business being there.
MR. GRIFFON: When you total them across, they should all add up to 15 every time.
DR. BEHLING: Yes.
MR. GRIFFON: Yeah.
DR. BEHLING: Yes.
MR. GRIFFON: So those extra 1's that --
DR. ZIEMER: But Hans is also saying -- so this is not a prevalence number in here under low, medium and high? I mean you're saying -- you just told us that there should be no numbers under low, medium and high.
DR. BEHLING: Yeah, I wouldn't want that because they have no meaning when you collate them across 15 individual reports whether or not this would have an impact on dose and impact on cancer or impact on POC. You cannot collate across individual dose reconstructions.

So all of the -- the columns -- in fact, I'm going to revise this thing so that they will have no -- none of these columns will exist.

DR. ZIEMER: Well, what I'm wondering, though, is -- this was part of the discussion before. Wouldn't it be useful to know the prevalence of the individual ones where you found low, medium and high?

MR. ESPINOSA: If they're all consistent.

DR. ZIEMER: You understand what I'm saying? In this case the footnotes wouldn't have the meaning before that you had for the individual cases, but you could tell us something about the prevalence. How many times did you find that the recorded organ dose -- let's see, is the organ dose uncertainty properly determined for photon dose, and if you said there were two cases where that occurred, two medium cases where that occurred.

DR. BEHLING: I can do that, yeah.

DR. ZIEMER: Would -- do you understand what I'm saying? It's --

DR. WADE: That's what I thought we had, as a matter of fact.

DR. BEHLING: Well, it has to be reformatted.

Right now this --

DR. ZIEMER: It has to be reformatted for the cover things so that it's clear that it's a prevalence thing.

DR. WADE: That's fine.

DR. BEHLING: In my initial intent all I wanted to do was show that they were -- a total of 46 cases where we had a yes and 42 where there was NA and four no's. And I should have potentially added the other numbers, without necessarily making a reference to whether or not they impact the dose other than to collate the numbers of low, medium and high --

DR. ZIEMER: Yeah, yeah, I think we understand it -- it's --

MR. GRIFFON: Yeah, I (unintelligible) --

DR. ZIEMER: -- I think it has a different meaning when you roll it out.

DR. BEHLING: Yes, yes.

DR. ZIEMER: But we certainly still want to get the prevalence, I think.

DR. BEHLING: And then I will revise this to make sense out of this.

DR. ZIEMER: Yeah, that's good.

MR. GRIFFON: And I'm not sure we don't have

that, but let Hans look at it -- but except for that last line, I think we do have it --

DR. ZIEMER: Yeah.

MR. GRIFFON: -- 'cause all those add up to -- right.

DR. ZIEMER: Those are here, yeah. Now my question at this point is does the prevalence information address the bullets on our single sheet, the methodology for categorizing and ranking cases, or do we still need to go back to the other matrix to answer that? I mean based on what Hans has given us here, for example, one can say that the contractor found no cases where there was a high probability of -- or where the --

MR. GRIFFON: I don't think they did -- to answer your question quickly, I mean I think it gets back to Dick's point, is that a checkmark on that one is not going to tell me whether it was a procedure problem or whether it was likely a -- you know, somebody added the numbers wrong or entered the wrong data and it might still fall under -- you know, was it the actual procedure itself or was it the person implementing the procedure, you know. And I'm

not going to find that with just the check box. You might find it in a more descriptive review. Does that make --

DR. ZIEMER: All this -- I think all this would -- what I'm -- I'm trying to understand what the wrap-up would say, for example, if there were no checkmarks in the high column on any of the individual cases. Can you then say that there were no cases where the deficiencies would substantially impact on the compensability of the cases -- or on a dose?

MR. GRIFFON: I wouldn't say that -- for the sheer reason that Roy was talking about, which is that half of them are unresolved at this point, and these only summarize 15 cases, and I'm still --

DR. ZIEMER: Well, I'm only talking about the cases that --

MR. GRIFFON: Okay. But even on this -- I mean I guess I'd want a little more depth on this, but when I look under internal dose, there's -- there's no checkmarks on the "no" box, but in fact I know one of the findings for Savannah River -- it's still up in the air, but there was a question about the high five with the

ICRP-30 versus 68. Now maybe -- you know, I don't think that's been resolved either way, but it's definitely an internal dose --

DR. ZIEMER: Well --

MR. GRIFFON: -- finding.

DR. ZIEMER: -- what we have to do then, it seems to me, is we have to take these ones where they have resolved it and what their findings are, combine it then with the unresolved ones somehow. I mean it -- at a -- at what point -- what do we do with these unresolved issues? Are we going to keep going back to the trough here; we can't do that indefinitely.

DR. DEHART: I think you can have unresolved issues that have been played out, and then the Board is going to have to decide what to do with that. We have unresolved issues which are still being worked, I understand.

DR. ZIEMER: Right.

DR. DEHART: And I don't see why we can't address that, the fact that there's eight or ten issues that are still being worked. Or do you want to wait on the report until we have everything closed out that we can close out,

and then --

DR. ZIEMER: See --

DR. DEHART: -- for the Board to take a position on it?

DR. ZIEMER: No, I think that's -- I think that's the Board's issue. They would like us to make a recommendation on that, though. In other words, this then just becomes a kind of interim report.

DR. DEHART: Yes.

MR. GRIFFON: Yeah.

DR. ZIEMER: It says this is where we are to date.

MR. GRIFFON: Right.

DR. ZIEMER: Some issues are still being worked and therefore there may be a change in --

MR. GRIFFON: Yeah.

DR. DEHART: But there are --

DR. ZIEMER: -- conclusions.

MR. GRIFFON: However, we've found the following --

DR. ZIEMER: Right.

MR. GRIFFON: -- following positive things that can be done to improve the program and some are already being implemented by NIOSH.

DR. ZIEMER: And in terms of -- I want to get back to your first issue, Lew, on compensability. You can -- you can still say that of the findings so far resolved that these -- these have impact or do not have impact on compensability, in terms of what you've found so far, just as a reporting tool.

DR. WADE: Yes. Again, there are always two functions. There's the audit function and then there's the improving the process function. And you know, I think the latter is more important. You have to decide when you want to speak as to your audit results.

MR. GRIFFON: I think -- I think -- for myself, I think that I -- we need a little bigger sample. You know, I'm just afraid what context that might be used in 'cause we might only have ten total cases resolved here. If we start pulling off the ones that have outstanding issues, I think you're left with eight or ten, maybe, that have -- you know, SCA's findings are fully resolved. I don't even know if there'd be that many, quite frankly. And then you're going to make a statement that out of all the cases -- you know, I think that's

potentially misleading and could be misused, you know.

DR. ZIEMER: I don't know that we're necessarily obligated to give the Secretary kind of a final audit report. I think we can -- we can give him a status report of what we're doing and how it's being done -- Lew, wouldn't you think?

DR. WADE: Sure, and you -- and you could decide that, again, that should come after 20, it should come after 62, I think it's --

DR. ZIEMER: We could give them some kind of a summary at some point, but -- but the Secretary could simply be informed as to how the dose reconstructions are being audited, what the process is.

DR. WADE: And again, I think there would be cert-- there would be different levels of urgency. If you were to see in the first 20 that there were numbers where the compensability decision would be impacted by faults you found, I think that would -- that would set off an alarm and I think you would be called to add. We're not seeing that.

I think it is appropriate then to keep your eye

on that and to report out things that would make the process better. But I don't think that an alarm has gone off, based upon what we've seen here. But I think there are things that could be done better and I think you're obliged to point that out.

DR. ZIEMER: But even in those cases, we're not neces-- we don't necessarily have to go to the Secretary to get those things corrected because a lot of it's simply pointing it out then NIOSH picks up the ball and takes appropriate action.

DR. WADE: It could be your result of the first 20 is -- having given a reasonable time for these issues to be resolved -- if you see issues that are not resolved, your motion could be to ask NIOSH to address these issues.

DR. ZIEMER: Right.

MR. GRIFFON: Right, right.

DR. BEHLING: Dr. Ziemer, may I --

DR. ZIEMER: Yes, Hans.

DR. BEHLING: -- make a correction, because I -- I have to apologize. It was my wife who collated and did all the spreadsheet, and I haven't looked at this for a long time --

DR. ZIEMER: Now be careful, be careful.

DR. BEHLING: -- and I am -- I know -- I have not -- well, she will kill me if she finds out I have completely compromised her effort here. And as it stands, this is correct. And let me explain what it means.

DR. ZIEMER: Which is correct now?

DR. BEHLING: The summary table as it exists is in fact correct and, as I said, this represents really mostly my wife's work. And what we have here in -- in -- is as follows: Under the column yes, NA and no, obviously we're not interested in anything that has yes in it because it responds to each of the questions that you see there under -- for instance, in the first -- under A, did NIOSH receive all requested data for the DOE, et cetera. If the answer's yes, that's great. And if it's NA, well, it doesn't matter. And it's only when we have a no that you have a potential problem. And this is -- when you turn -- on the back side we had a total of 46 no’s, meaning that there were 46 potential problems. Okay? Or deficiencies.

And then the columns under "If no, what is the potential significance?" we had a total of 42

with significance being very, very low, meaning that it only marginally impacts --

DR. ZIEMER: That is a prevalence number, then. That's this.

DR. BEHLING: Yeah.

DR. ZIEMER: Okay.

DR. BEHLING: And then there were four that were medium. However, it -- unlike in case number six where I put the question mark in the last column, these four do in fact represent a -- a collective value of a medium and therefore if -- let's say we had four cases, each with one medium. You would say well, that's not going to change the probability of causation. But if they had occurred in a single case, then of course they would -- and for that reason I refrained from even acknowledging that potential for impacting POC in the collated numbers.

DR. ZIEMER: Yeah, understood.

DR. BEHLING: As -- as it stands, this document's correct, and I owe my wife an apology.

DR. ZIEMER: Okay. So -- and it does look like the -- I mean if you look through these, they

did add up, so --

DR. BEHLING: Yes.

DR. ZIEMER: Okay.

DR. WADE: And I think that's what we -- we had always thought it was and that's what it is.

DR. ZIEMER: Okay. The Board thanks you, and your wife thanks you, too.

DR. BEHLING: I'm at least man enough to admit my mistakes.

DR. ZIEMER: Okay. Other comments? Okay, ready for a brief break and then we'll resume? Thank you.

(Whereupon, a recess was taken from 1:50 p.m. to 2:15 p.m.)

DR. ZIEMER: Okay, we're ready to resume deliberations. John Mauro has some comments -- John, welcome back to the mike.

DR. MAURO: Yes, John Mauro. During the break I had a chance to sort of just step back and think a little bit about that form, and what is it really telling us. And the bottom line is I think it's telling us that notwithstanding the fact that we really went after these 20 cases with a fine-tooth comb, what -- what the outcome is is that, based on our review, we did

not find any case that left us with the impression that it looks like we've got a situation that might be reversible.

In the one case that Hans pointed out where there was this question mark, there are reasons that are not -- that one -- if you read through it, you'll see why there's a question mark there. But it did not raise it to the level that we felt warranted putting it in the roll-up column as a possible reversal. When I say possible -- so our -- the bottom-line story is, out of the first 20 cases we did not see anything whereby the combination of the POC, together with the level of perhaps underestimate of the dose, was to such an extent that we thought the potential existed for a possible reversal.

DR. ZIEMER: Thank you. And that's certainly significant for us to keep in mind as we do our own summary.

I have one other question. On the tot-- the 46 potential problems that are identified in the roll-up, does that include all the problems that are still under concern -- or that have not been fully resolved? Yeah, that's

everything.

DR. BEHLING: Yes, what you're looking at right now is the report that is part of the expanded review process and therefore has -- they removed some -- a few of the items where NIOSH came back and said we are right and you're wrong, and we said yes, we're wrong and so we withdraw. But the report as you see it in front of you basically reflects what we felt were residual issues and therefore are issues that are deficiency or error or minor -- many of them are very, very minor --

DR. ZIEMER: Right understood.

DR. BEHLING: -- and that's fully acknowledged.

DR. ZIEMER: And then is it fair to state that, even in those unresolved items then, even if the -- regardless of how they're resolved, they have a very low likelihood of impacting compensability.

DR. BEHLING: Absolutely. I mean -- not only compensability, but affecting the dose.

DR. ZIEMER: Yes.

DR. BEHLING: And I should also say if you read through the actual cases, we were probably as critical of overestimating many of the doses as

we were of underestimating --
DR. ZIEMER: Understood, right.
DR. BEHLING: -- where we took exception to these generous assignments of exposures --
DR. ZIEMER: Right.
DR. BEHLING: -- that we felt were unwarranted.
DR. ZIEMER: Right.
MR. GRIFFON: Can I -- can I just --
DR. ZIEMER: Mark.
MR. GRIFFON: -- urge one thing? Can I urge that we, at this subcommittee level, dig into the report?
DR. ZIEMER: Sure.
MR. GRIFFON: I'm getting a little nervous about relying on one sheet of paper for all this case work they put in, especially since I -- I look at the summary and I'm unclear why there's no internal dose findings when Savannah River -- it's not on the Savannah River cases, either, but we've talked at length about the high five. And I don't know that that was resolved yet, and it doesn't show up anywhere. So I don't understand exactly how these are tracking through, so I just want to understand --

DR. BEHLING: Yeah, because of task one being a very separate task where we have an obligation to review several of the TBDs, including obviously Savannah River, we basically -- or when I did most of the dose reconstruction reviews my principal objective was to say did you comply with the procedure and not necessary question the integrity of the procedure itself. In other words, we did raise the issue of the ICRP-30 versus 60 issue, but ultimately postponed even that to another discussion that involved the TBD. And so the internal exposures among the first 20 cases were almost to the T those that involved hypothetical uptakes that involved the high five or the 28 versus 12 nuclides for Hanford, and I did not challenge that. I simply audited the report and said the dose reconstructor's job was not to challenge that and therefore I'm not going to hold him accountable for necessary questioning the methodology that has been laid out for him to follow. And so you're right, Mark, and we did not necessary address that as an issue because that was something we felt came under task one.

MR. GRIFFON: But -- but -- yes, but it was brought up and discussed at length at all of our meetings and I just --

DR. BEHLING: Yes.

MR. GRIFFON: -- and these are -- these are some big issues --

DR. BEHLING: Yes.

MR. GRIFFON: -- or potentially big issues --

DR. BEHLING: Yes.

MR. GRIFFON: -- at least, that we have to follow through on, and I think it's terribly --

DR. ZIEMER: It gets -- it gets --

MR. GRIFFON: -- (unintelligible) when you see no internal dose findings, and you went to these other meetings, I think that doesn't coincide with what I --

DR. BEHLING: You will see that is an issue under the review of the Savannah River TBD, which is -- I assume -- currently in your hands.

DR. ZIEMER: Yeah. Jim Neton, welcome.

DR. NETON: I want to clarify something. I think that the crux of the issue with the high five approach was -- was not so much of the magnitude of the assigned intake. I think

you'll even see words in the report that say they don't necessarily disagree that this was an overestimate of dose and the case is still not compensable, that large overestimate. It was in the use of -- whether we actually used the ICRP-30 instead of the 66 methodology, which is in our regulation. So it's a conceptual issue related to 66 versus 30. But the whole high five approach was we were giving very large overestimating intakes to workers. And whether you use 66 or 30 is irrelevant if one buys into the fact that those values are very, very large overestimates for the workers who were not very heavily exposed. It's not really --

MR. GRIFFON: There was another question and -- but it wasn't captured in the revision of SCA's document, either -- but I brought it up at the three-way meeting that we had and that was the question of whether those high five have ever been validated, had NIOSH ever gone back and redone those calculations independently or were they just taken from the site authors --

DR. NETON: That's correct. That's another issue.

MR. GRIFFON: That was another issue, right. And it didn't necessarily make this final draft, I agree.

DR. NETON: But it's not the ICRP-30 or 66 issue that was raised.

MR. GRIFFON: Right.

DR. ZIEMER: John?

DR. MAURO: John Mauro. Yeah, I'd like -- the -- one of the I guess challenges to the work we're doing is very often we're auditing cases that we have not yet reviewed the site profile. So what happens is -- and Hans can speak to this better than anyone -- is that he has to perform what I would call a mini-review of the TBD, read the 300 pages, get -- get a sensibility for okay, does it look reasonable -- in other words, do his own review so that he can then use the TBD, along with everything else, to check the case.

Now you bring up a very good point regarding the Savannah River because what -- Savannah River review you may have just received, a hard copy of it, we just completed. And there's a whole section dealing with the high five, and there's a lot of commentary on -- regarding

whether or not the -- you'll see when you get to it that we have questions regarding it. Now we were not in a position, and quite frankly we're still not in a position, to have a judgment on the degree to whi-- of conservativism imbedded in the high five. Certainly on first blush the strategy to use the high five for those cases that we don't have data and you suspect that the person is non-compensable, that is -- that's a cut to make it into the high five world. Right off the bat we're dealing with those folks that are not the ones that are in the -- (unintelligible) of NIOSH to be in that range, so -- but nevertheless we were very -- we had lots of comments and questions regarding it. That was the result of quite an effort on the part of our internal dosimetrists.

When Hans performed a review of the Savannah River cases, that was actually before -- or during the time when we were reviewing the Savannah River site profile. So as a result, we elected not to perform the high five review as part of an individual case. It would have been impossible, the magnitude of the effort.

So basically the -- our reviews of each case -- we do the best we can in reviewing the site -- the TBD at -- when -- that supports that case, but I have to say that it -- by no means is that review on the same scale and magnitude and depth as when we perform our TBD review. So we do have a little bit of a misconnect here.

I think the day will come after we review the site profile comments and after we go through our expanded review, we may very well get around the table and say okay, what does this mean with respect to the completed reviews of the cases, the five or six or eight cases of Savannah River? Is there anything that we've learned now as a result of the TBD review that might feed back and have an effect. There's not -- there's no way to avoid that.

MR. GRIFFON: Well, in the -- and I -- you know, don't misinterpret what I'm saying. It wasn't really a criticism, it was just a point about dialogue in these other meetings. And also -- you know, I also recognize that the high five, for someone who probably -- some workers who were never even in a hot area it's obviously a fairly conservative assumption.

I'm just pointing out that there were some -- some gaps in that.

DR. MAURO: You're correct.

MR. GRIFFON: But the -- the other thing that comes to mind is the Bethlehem Steel cases where -- and I don't know where these stand. You -- you've certainly done more work on this at this point and it's coming up later in our meeting here. But there was some questions I think, not necessarily for the cases we reviewed here because I think they were mainly lung cancers, but for other cases where the -- the questions that you guys rose, SCA rose -- I think you stated at other meetings that they may have impacted on certain cancers, certain types of cancers --

DR. MAURO: Yes.

MR. GRIFFON: -- for being compensable --

DR. MAURO: Yeah, they were --

MR. GRIFFON: -- rather than non-compensable. Right?

DR. MAURO: We reviewed several Bethlehem Steel cases. We were the beneficiary, I -- in fact, I reviewed the Bethlehem Steel cases myself and I was the beneficiary of the fact that while I

was doing that the Bethlehem Steel site profile was well along. So basically as it -- in the case of those -- those cases that are -- the Bethlehem Steel cases, everything that we've learned as a result of our review of the Bethlehem Steel site profile has been captured and is incorporated into the cases.

Now, how some of those issues are resolved -- I mean they're still pending. That is, NIOSH's position regarding the issues that we've raised I believe is going to be the subject of some discussion. As a result of that discussion, perhaps some changes that NIOSH might make to its approach to analyzing -- to the TBD for Bethlehem Steel, that will have an effect on our report, which could change some of the -- in other words, change some of the findings, so --

MR. GRIFFON: But not on the matrix 'cause they're not included. Right? The AWEs are not. Right?

DR. MAURO: Right, the -- exactly, the AWEs are not included in that report because there's -- there's no fit.

DR. WADE: Might I make one other suggestion,

Mr. Chairman, just to finish the laying out of background? Jim, could you give us a status of where we stand on the unresolved issues that have come out of the interaction between SC&A and NIOSH concerning the first 20 case -- dose reconstruction reviews?

DR. NETON: Well, I can't speak -- do you want me to speak to the AWEs, as well? I think it would be best for this meeting to talk about the ones that are non-AWEs, the 15 that are not related to Bethlehem Steel or -- or Huntington. We can talk about those later.

But of the 15 that are listed here, I don't believe that there are any unresolved issues with SC&A at this point. We are working through a list of 13 action items that we've established to go back and -- and relook at these cases and -- and change our procedures or policies, as appropriate. We don't have that formally published, but we have a team working on that. We have actually looked at all 15 cases and evaluated the change in compensability based upon the issues raised by SC&A. We don't believe any of those cases are going to change compensability based on a

modification based on the SC&A findings.

DR. WADE: Okay. So at least from your report, intellectually you've reached closure with SC&A and NIOSH has taken now the lessons learned and is applying them to the process of dose reconstruction.

DR. NETON: Yes.

DR. WADE: Okay.

DR. NETON: With the exception of the AWEs and possibly the Savannah River site profile issue that was just discussed by John and Mark with the -- the high five issue.

DR. WADE: I mean I just think in a world where there's all kinds of reason to question just about everything -- I mean this is a good experience we've had. I think the audit contractor's come in and looked at NIOSH's work and reported that it found no issues where compensability would be modified, although there are all kinds of caveats, and NIOSH has taken to heart SC&A's comments and is looking at improving its own procedures. I think that's worthy of note.

DR. ZIEMER: Yes. Jim, thank you for updating us on that. Now I want to ask the question, in

terms of this document, what -- what the impact is here then. We have a number of items in here where we're showing, for example, NIOSH and SCA agreed to resolve this issue; NIOSH and SCA agreed to resolve this issue within the site profile review. A lot of those are that way. Let's see -- NIOSH and SC&A agreed to resolve this general issue. So all -- all of these that are -- that show here like it's going to be done, have been completed. Is that how I'm to understand it?

DR. NETON: I don't know that they've been completed. We've come to an understanding between us and SC&A.

MR. GRIFFON: I think also case one through five are the AWE ones, yeah. So six on is really what you're looking at. Right?

DR. NETON: And I don't have first-hand information. Stu Hinnefeld has been working closely with SC&A on this, but my latest information from him is we have no outstanding issues. We believe some of the language may -- may be a little -- we may have expressed things a little differently language-wise, but fundamentally we're -- we're in agreement.

DR. ZIEMER: But wherever it says NIOSH and SC&A agreed to resolve this issue --
MR. GRIFFON: I think we just want to know how --
DR. ZIEMER: -- or NIOSH agreed --
MR. GRIFFON: -- that was resolved.
DR. ZIEMER: -- to further investigate --
MR. GRIFFON: That's --
DR. NETON: I don't have that level of detail here at this meeting, but I could certainly get that to you if you'd like a --
DR. ZIEMER: Or NIOSH agreed to look into this further, all of these things have now been -- I'm just really asking if this needs to be updated before --
MR. GRIFFON: Yeah, I think we -- if we can ask NIOSH to report to us --
DR. NETON: We can put together a report that outlines where -- how we've come to agreement on these issues, certainly.
DR. WADE: John, you were going to speak?
DR. MAURO: John Mauro. Yes, I just wanted to -- it's important to point out, I noticed that in one through five on the list here, you'll see a lot of places where it says NIOSH and

SC&A agree to resolve this issue. I think by way of an example, it would be very helpful to know what does that really mean. In one particular case it talks about, for example, this business of the triangular distribution versus a lognormal distribution.

DR. ZIEMER: Uh-huh.

DR. MAURO: The way that stands right now is that yes, as you know, our position is scientifically we were critical of the use of the triangular distribution. As my understanding is right now is that NIOSH is taking a closer look at perhaps replacing or supplementing their TBD with a lognormal distribution of some form, which would go toward a resolution of this issue. Now certainly there's a lot of the devil in the details. Okay? How do you build that, how do you use it, all of which is, I believe -- and right now NIOSH is working their problem -- I presume the day will come when NIOSH will put forth their position, their addendum, regarding all of the matters that we have been discussing. And at that point we'll have a better sense of how much closure we have in

fact achieved. But there's no doubt that at least based on the last meeting I attended where Jim gave a presentation -- in Buffalo -- it's clear that each of the major issues are very much on the table and NIOSH is working with them.

DR. ZIEMER: But it sound to me, though, from what's been said, that actually there's a kind of closure on each item has been achieved. Is that a correct statement? I mean we're not looking for another iteration or waiting for something to be resolved at this point, is that -- is that correct?

DR. WADE: I think that's correct, yes.

DR. ZIEMER: So what we would need for our kind of wrap-up would be the up-dating of this document so that it coincides with what we've heard here. And I'm not sure -- it seems to me that something could be done pretty easily, maybe even this evening, just -- it'd be a matter of sitting down and -- with maybe Jim and -- some of these it is it's going to happen in the future or it has happened. Right? So whatever we end up with here does not necessarily have to talk about things that need

to be resolved as yet. Is that correct? That some level of agreement has been reached between the groups and -- but we need to identify what that is.

MR. GRIFFON: Yeah.

DR. ZIEMER: We have the response here, but I'm even wondering then if we need something that describes the resolution of the issue. Would that be helpful, or do we need that in here?

DR. DEHART: Is that cutting too deep for --

DR. ZIEMER: I don't know, I'm asking --

DR. DEHART: -- (unintelligible) report out? I don't think so. What I would suggest is that what -- if you can do it in a few sentences, what the issue was and then state that that's been resolved.

DR. ZIEMER: Well, we have -- we have the findings, we have NIOSH's response, it's -- it's the -- the action is, you know, what was agreed to? It's -- it's a sentence or two, I think, and --

MR. GRIFFON: Yeah.

DR. ZIEMER: Because we -- I think we want to know that. The Board's going to want to know that, what is the resolution of this issue.

Right?

MR. GRIFFON: Right.

DR. ZIEMER: Do you all see that as being part of the -- of the closure?

MR. GRIFFON: Oh, yeah, yeah.

DR. DEHART: If it can be kept brief.

DR. ZIEMER: I want to get a sense of where we are here, so what would need to happen would be -- I think the only change on the SC&A summary sheet is how that's characterized on the wrap-up. Right? And that can be easily...

DR. BEHLING: We will make some changes there, but I think with regard to closure I am not sure I know what can be done. Obviously we have very minor deficiencies. There's what, 42 or 46 minor deficiencies, and I suppose one would be to go back and make the changes to the dose reconstruction report. But as we already pointed out, it's not one that's going to change the dose significantly or anything else.

DR. ZIEMER: Well -- but we're not asking -- we're simply summarizing --

DR. BEHLING: Yeah.

DR. ZIEMER: -- what you found, and that's what you found. If NIOSH wants to make changes,

that's going to be their -- their job. But I'm just looking at what -- what our wrap-up report is going to have. It's going to include this information, I believe, with whatever minor modifications are made to the form. It's going to include an updated version of this findings compilation and the resolution thereof. And then the final part of it I believe then is a -- what you described, Mark, as a cover sheet which is a narrative that, in essence, summarizes what these all mean. Is that correct?

Is that a narrative that we would like to try to generate here as we sit, or do you want to assign this to a drafting person or persons for the evening?

MR. GRIFFON: I think it -- well, it might be easier to draft something tonight or -- unless we can get a -- I think it'd be easier to draft tonight.

DR. WADE: Do you have --

MR. GRIFFON: Maybe we can get the major concepts that we want to capture in it, and then draft the text tonight.

As far as filling out that matrix, that's a

little more involved of an effort, especially since it requires going through and finding all the findings that weren't necessarily controversial.

DR. ZIEMER: I don't know that we need that matrix tonight. I'm thinking of something that -- we're going to present something to the Board --

MR. GRIFFON: Right.

DR. ZIEMER: -- for action. And what I'm suggesting is that that will include -- if this is what we agree to, I'm -- I'm not unilaterally declaring this; I'm throwing this out. This would include the SC&A summary, with whatever minor modifications they make in the headings of this to make it clear that it's a -- it's a roll-up of the individual sheets; an update of this summary of findings and the resolutions thereof; and then this cover sheet that we talked about which will enumerate the significance of the findings --

MR. GRIFFON: And the areas for improvement.

DR. ZIEMER: -- and the areas for improvement. And this may be a one or two-pager, whatever it is.

MR. GRIFFON: Yeah.
DR. ZIEMER: It'd be some sort of a narrative.
MR. GRIFFON: Uh-huh.
DR. ZIEMER: But with -- and we'd want to make sure that we addressed the bullet points that are set forth in our methodology sheet.
MR. GRIFFON: Right.
DR. ZIEMER: Now, that's -- that's what I'm...
MR. GRIFFON: And I was -- and I am envisioning this -- this one or two-page part in front of the tables as sort of a -- I mean I think it's worth putting a little background in there, too, you know -- 20 -- we reviewed 20 cases, five AW-- you know, this many AWEs, this many --
DR. ZIEMER: Uh-huh.
MR. GRIFFON: -- you know, we've -- and the primary -- the major conclusion that none -- we don't -- our subcon-- our contractor found that none -- they don't believe any would have -- would have been pushed over the 50 percentile.
DR. ZIEMER: Right.
MR. GRIFFON: But then go on to say, you know, these were sampled from, you know, early cases and the POCs ranged -- I mean even a little

background information about what we were selecting from, you know --

DR. ZIEMER: Sure, sure.

MR. GRIFFON: -- I'm talking a paragraph, you know, yeah.

DR. ZIEMER: Yeah. Is that agreeable to everybody? Give him some ideas here for a draft effort this evening. So the updating of these other two pieces would need to occur before the Board meeting.

MR. GRIFFON: Right.

DR. ZIEMER: We would understand that we would be recommending to the Board that the final report include this cover page, plus these two -- the support documents. Is that -- is that agreeable to the group?

DR. DEHART: This would be --

DR. ZIEMER: You want to formalize this in the form of a motion? Or is -- are we going to take it by consent that any objections -- without objection, we'll proceed in that way. We would be looking for a volunteer writer or two for working on the summary sheet for this evening. Mark, are you volunteering to --

MR. GRIFFON: Yeah, I'll draft -- yeah.

DR. DEHART: I'll give him a hand.
DR. ZIEMER: Roy will assist you. And I'm certainly around --
MR. GRIFFON: Okay.
DR. ZIEMER: -- you know, if you're not -- if you're not sure about the dangling participles, I'll be around.
MR. GRIFFON: I'm sure you'll find them for me.
DR. WADE: You know, in terms of the heavier task, which is the -- getting this document resolved, maybe -- Jim, could you come to the microphone for us so we could have a dialogue as to how we're going to -- just -- it'd be good if we get an agreement as to how we're going to do that, so let's just talk as to how that's going to happen so that it can be done in time for the next Board meeting.
DR. NETON: Okay. I'm not sure what --
DR. ZIEMER: Well --
MR. GRIFFON: Well, I guess I --
DR. ZIEMER: -- what we're wondering is -- we have a number of items here that currently indicate they're going to be resolved.
DR. NETON: Right.
DR. ZIEMER: And you've told us basically they

have been, and I think we're just wanting to update that and say this is how it's been resolved.

DR. NETON: Right, so we can -- we can update this?

DR. ZIEMER: Yeah, it'll be a sentence or two, and it may be even a separate column, a resolution or something like that.

DR. NETON: Yeah, we can do that and -- before the next Board meeting, if that's --

DR. ZIEMER: That's really what we're asking.

DR. WADE: But let's talk -- but -- you can do it, but then it needs to come to this group, and you need to take ownership of it and make sure it's adequate. I just wouldn't want to come to the next Board meeting and find that we didn't have what we thought we needed. So there needs to be an iterative step. If you can put something together and then share it with the members of this subcommittee, then if you guys are comfortable with it then we're done. If you're not, then we need to do an iteration.

DR. NETON: The question is then how soon before the Board meeting -- we have a number of

competing and conflicting demands on our time. I don't expect that this is going to be a -- a huge effort, to be honest. But if I could get some sense for how much advance notice -- ten days before the Board meeting?

DR. ZIEMER: Well, if we had it a week before, that would be adequate, I would think, would it not?

DR. NETON: We'll certainly do our best to get -- as soon as we're done we're going to send it over, but a week before, if that's suf--

DR. WADE: Well, let's say ten days.

DR. NETON: Ten days before.

DR. WADE: And you would then send that to all the members of the subcommittee.

DR. NETON: Right. So that would be by the 15th of April time frame. Okay.

DR. WADE: Thank you, Jim.

DR. NETON: Okay.

MR. GRIFFON: Get your taxes in first.

DR. ZIEMER: Now are there any issues relating to this that we have not captured? Anyone...

DR. WADE: I have some general issues.

MR. GRIFFON: Okay, go ahead. As far as procedural or what do you --

DR. ZIEMER: No, items that we want to include in the report that we haven't captured. Okay.
DR. DEHART: The only thing that comes to mind is any direction which we have given the contractor since we've begun to see the reports that they will be required to continue to follow. In other words, the results of the -- of the audit have resulted in our making some recommendations on how that's to be prepared.
DR. ZIEMER: Right, and this is the general scheme issue of how we proceed to -- go ahead.
DR. WADE: I was just going to say what Dr. DeHart -- I think it would be worth us spending some time talking about lessons we've learned to this point and things we would like to institutionalize, be it in SC&A's work or the Board's work or NIOSH's work. I think it's good to pause and to talk about those things, particularly while it's fresh in all of our minds 'cause, again, the purpose here is to get better. And so I think that needs to happen sometime this afternoon. Maybe now is the time, maybe later.
DR. ZIEMER: Well, this is certainly the time to do that. I'm asking if we're all set on the

general report itself for the first 20 cases, and then that'll come back to us tomorrow morning to act upon.

As far as the general issue of going forward, I think we've already institutionalized the idea that -- number one, that the report will go to NIOSH for factual checks right at the front end. And we also have, as a general process involving the individual Board members, the sub-teams on the initial discussions with SC&A. I'm talking about dose reconstructions now.

DR. MAURO: Yes, we are very much into what I would call the expanded review mode of operation.

DR. ZIEMER: Right.

DR. MAURO: Our work products -- namely, for example, the next set of 18, for example, will go through the same process that the first 20 went through, namely we will deliver a draft version for factual accuracy review. There will be an exchange that I presume will follow exactly the same pattern that the first 20 followed, perhaps a list of commentaries, observations, questions, issues from -- from NIOSH. We'll meet to discuss all of them, then

we will finalize our report that will reflect that expanded review cycle. So we're in a pattern that, yes, for the task four dose reconstruction process, that is the mode of operation that we are operating under right now.

DR. ZIEMER: Uh-huh.

DR. WADE: And John, while -- while you're still there -- now we talked about possibly your drawing out this kind of information from your review and providing --

DR. ZIEMER: Can you generate that as part of --

DR. MAURO: We certainly can, if that's what you would like, and it would be very easy for us to do. It would reflect basically -- in effect, it would be our understanding of what was resolved during the expanded review cycle, and it would basically take exactly the same form that Mark's write-up has, except it would have a column in it that would indicate how the issue was resolved by SC&A. That is, we did resolve this issue, see page so-and-so and this is how it was resolved. In other words, we could actually achieve closure.

If it means -- it also would indicate -- perhaps there's an action item. For example, let's say we're talking Bethlehem Steel. If there's still an open item related to triangular distribution, we will say right now this is an open item currently being reviewed by NI-- so this will be our understanding is that this particular issue has not yet been closed but it's an action item that's currently being looked at by NIOSH. This in effect would be a letter from us to the Board reflecting our understanding of the status of each of the items that were originally listed by NIOSH during the expanded review cycle, and that's very easy for us to do while we're writing our report.

MR. GRIFFON: But -- but actually -- actually I think -- this matrix -- I know this was done from the expanded review and NIOSH's sort of -- the ones that they were questioning. But I think what I'd like to see in the next cycle is for you to create this matrix and sort of just fill in that first column initially as we start the process, so you'd just list your --

DR. ZIEMER: And you could still

(unintelligible) as you go.

MR. GRIFFON: -- list your findings in a table, and then -- and then we'll work them from there, and as --

DR. MAURO: I'm not following you, I'm sorry.

DR. ZIEMER: Mark's saying when you first do your initial report -- well, no, they would have had the factual accuracy thing, but you wouldn't necessarily have the NIOSH responses --

MR. GRIFFON: Right.

DR. ZIEMER: -- to your findings.

DR. MAURO: That's correct, it would be our -- in other words, the way -- what I just characterized --

DR. ZIEMER: This column would be almost blank to start with.

DR. MAURO: Well, the first --

DR. ZIEMER: No, the second column here.

DR. MAURO: Okay.

DR. ZIEMER: You wouldn't have the NIOSH response when you first issued your report.

DR. MAURO: That's correct. We would have -- if we go through the process we just described -- okay? -- we would -- we would be going into

-- you would -- we would have been through the first phase where we delivered our draft. We would have had our meetings with NIOSH regarding factual accuracy review. We will have -- SC&A will have had before us the first column, because that would be provided to us prior to the meetings of -- the factual accuracy meetings, so we will have all that. Then --

MR. GRIFFON: Yeah, but I'm saying you provide that.

DR. MAURO: Oh, the --

MR. GRIFFON: I'm saying -- asking if you could provide that first column going in, and then if during the factual accuracy review it gets thrown out for factual accuracy basis, then you show that in one column.

DR. MAURO: No, I think NIOSH provides the first column.

MR. GRIFFON: That's what happened -- that's what happened here.

DR. BEHLING: I think I understand Mark's intent here and that's to simplify the issue and also make it more comprehensive as --

MR. GRIFFON: Right.

DR. BEHLING: -- in this case we found we only dealt with the issues that were being contested by NIOSH as opposed to those --

MR. GRIFFON: Right, I want to have all --

DR. BEHLING: -- that were the complete picture, so what I understand you to mean is that summary of findings is what we will introduce as part of our initial draft that will actually precede or coincide in time with our initial draft, before we even get any comments from NIOSH.

MR. GRIFFON: Right.

DR. BEHLING: And then after meeting with NIOSH we can then sit down and saying well, item number one, they concede or we were wrong --

MR. GRIFFON: Right.

DR. BEHLING: -- or this is a difference of opinion that needs really no resolution.

DR. ZIEMER: Otherwise some of these are dropping out and we don't --

DR. MAURO: We don't see them.

DR. BEHLING: Yes.

DR. ZIEMER: -- we don't see them.

DR. BEHLING: Yes. Yes, yes. And so this is nothing more than a facsimile of the dose

reconstruction report review.

MR. GRIFFON: Right.

DR. BEHLING: We will simply itemize and perhaps summarize in very brief fashion into this first column, that's all.

DR. ZIEMER: Right. And then each -- as each item is resolved or responded to, you simply fill one column --

MR. GRIFFON: (Unintelligible) across the (unintelligible).

DR. BEHLING: And that should be no problem. We'll have that then available and --

MR. GRIFFON: Right.

DR. BEHLING: -- we'll just then fill in the blanks after the meeting.

MR. GRIFFON: Right, right.

DR. BEHLING: Or as the meeting progresses.

DR. ZIEMER: So in essence it's the same process, but we would be tracking it a little more formally so that we can really see how each item was dealt with and you can just go across and it's resolved or whatever. Or dropped away --

MR. GRIFFON: Yeah.

DR. ZIEMER: -- for factual accuracy. Okay. Does that seem reasonable? Anybody...

DR. WADE: I have two more general issues, and they come under the Board heading of time and money. I think it would be good for us to talk about how long it would be reasonable for us to expect it would take to come to where we are now on the first 20 on any group of dose reconstructions. I mean I think we need to do a better job of realistic -- realistically planning what we're going to do at Board meetings. We are very overly-optimistic in terms of what we think we're going to do, and then we find ourselves rushed. And I think while we're here and we have some time, it wouldn't be a bad idea to talk about -- from the minute we pick the next number of cases -- when would we think it would be appropriate to try and come to a Board meeting and reach closure on that -- that series of review.

DR. ZIEMER: Let me kick this off and we'll have to hear from John, too, but we all already have our second group of 20 -- which is really 18 -- and our third group of 20 -- which is really 22, I believe. And both of those have

been impinged upon by other events, such as the urgency of the Special Exposure Cohort petitions and -- and our contractor has tried to accommodate us by readjusting the -- with the urgency of the times. So -- and that readjusting has continued with the change in the Iowa Technical Basis Document and -- and others. So the fact that there's been a delay in the second 20, of course, is -- we can't lay at the feet of our contractor. But I guess at this point maybe we need to look at what -- what -- with all the things that have impinged on us, where do we stand on the second 20, and then -- that is, the second 18 -- and the third group, where do we stand on those?

DR. BEHLING: Well, I'm trying to do a number of things, some things --

DR. ZIEMER: Right, and I understand.

DR. BEHLING: -- obviously reading and reviewing the Iowa TBD, but at this point I can assure you that we will have a draft report for the second 18 cases probably before the end of next month so that -- end of April, it should be the target date.

DR. ZIEMER: That would be the first draft?

DR. BEHLING: Yes. And we will also try to do this summary table that Mark has been asking us to do, and we will have that available for your review, as well as NIOSH's review, sometime at the end of this month, assuming that there are no additional tasks handed to me by John. But I think we're well on our way. I think at this point I'm trying to do these things --

DR. ZIEMER: What would be the end of this month? What --

DR. BEHLING: The end of next month, end of April.

DR. ZIEMER: End of April for the next 18.

DR. BEHLING: Next 18, yes, yes.

DR. ZIEMER: And then you said something else was going to be at the end of this month, or was that a slip?

DR. BEHLING: No, no, that was a slip and I -- we had intended to have that available at the end of this month originally, and then asked for a reprieve for one-month period as a result of the Iowa case. And then at this point I think we will certainly be in a position to satisfy the end of April as a deadline for the next 18.

DR. WADE: So at the end of April -- excuse me, at the end of April we would get the first product -- could you just walk us through, Hans, how long it would take to get to the end of the process for that 18, from your point of view?

DR. BEHLING: Again, I think we're getting smarter as time goes by. I think we will have a much more efficient process by which we resolve issues between us and NIOSH when they crop up. I think we all learn from our experience, so right now I think we perhaps need to get some additional information.

I think there may be a discussion that we will also have later on, either today or tomorrow, and that is the issue of workbooks and Excel sheets and so forth and other items that we now know are an integral part of the dose reconstruction process. And for us to become much more efficient in reviewing and auditing those particular claims that made use of these workbooks and spreadsheets, we're going to probably be asking the NIOSH people to provide us with some training, because that will clearly expedite.

And some of these dose reconstruction require an extensive review and I've elected to do most of that myself. A case in point was the Iowa dose reconstruction case I looked at just yesterday, and again it was fortuitous in a sense where I was also in a position to have already reviewed the revised TBD for Iowa, which also obviously therefore saved me the time for reviewing it in -- in context for this particular -- but I also have to go now back and review the original because this particular dose reconstruction report was done under the old version, the Rev. 00.

So at times it's very time-consuming and I know that we've been questioned about our efficiency. But for a single case such as this one here in question, I had to review two independent TBDs, the original Rev. 00 and the revised Rev., in order to understand what this dose reconstruction entailed and how it may change as a result of the revision to that TBD. So for a single case I had to review really two TBDs, and at times that does tend to really take a big chunk out of your time.

I'm hoping that, as I said, I will still be in

a position to review all the other TBDs that are part of the next 18, and they include NTS and INEEL and, as I said, they do require some time. So I'm hoping that I'm not biting off more than I can chew in telling you that I will be there to -- to give you a finished report, but I will certainly do my best.

DR. ZIEMER: Okay, let me clarify. So the end of April let's say you have that draft out with your findings. Then NIOSH will look at that -- now at that point a factual review has or hasn't -- has not been done?

DR. BEHLING: No, it will not have been done.

DR. ZIEMER: Okay. Then NIOSH does the factual review --

DR. BEHLING: Uh-huh.

DR. ZIEMER: -- and -- and --

MR. GRIFFON: Could I ask --

DR. ZIEMER: -- that --then that --

MR. GRIFFON: -- to back up one step, is there -- are we going to have the workgroup conference call --

DR. BEHLING: Yes.

MR. GRIFFON: -- like we did last time?

DR. BEHLING: Yes.

MR. GRIFFON: Right.
DR. BEHLING: Yes.
DR. ZIEMER: Yes.
MR. GRIFFON: That happens first. Right?
DR. BEHLING: And that means we have to obviously do this well in advance because we need the --
DR. ZIEMER: You've got to schedule --
DR. BEHLING: -- initial telephone -- has to take place before we even write the report, so as I said, I've got my work cut out and I'm going to have to probably finish most of my reviews within the next two weeks or so in order for us to achieve that timetable.
DR. ZIEMER: Then NIOSH needs some time to do a factual review and -- amidst everything else, and I supposed in fairness Jim would be the one to ask, but what -- what's -- or -- what's reasonable from your point of view if they deliver a document -- you know, here's the -- here's our review of 18 cases; what happens next?
DR. NETON: Well, if it's -- if it's --
DR. ZIEMER: If it's just the factual review.
DR. NETON: The factual review, we're not

looking at it from a technical perspective necessarily.

DR. ZIEMER: Right.

DR. NETON: I think we'd like to have a business week to look at it.

DR. ZIEMER: Uh-huh.

DR. NETON: I mean these are long documents. I mean they're typically well in excess of 100 pages, more typically closer to 200, so just to get someone's eyes on it and to look at it, I think a week is -- is -- could (unintelligible) --

DR. ZIEMER: So then you get the factual review back, then what happens next?

DR. MAURO: Could I just back up one second?

DR. ZIEMER: Yeah.

DR. MAURO: The fact that we're going through a factual review process, I question whether we need the telephone review process. Let me -- I'd like to pose this to the Board. As you know, one of the things we did on the first set is that after we performed our first review of the 20 cases -- and we actually didn't really write up our audit report yet, but we had each author of -- or who was working, we had this

telephone conference call where each -- where two members of the Board were -- were in conference to hear our story.

DR. ZIEMER: Right.

DR. MAURO: Okay? And it was a round-table discussion. Now that was one of the milestone steps in the process, and the reason -- if you recall -- that was introduced was to avoid a situation where the first time the Board would see the document would be during the next Board meeting. Okay? This was an opportunity for the Board to be part of the process, to have a preview of where things were going and be engaged early.

I would contend that now that we have the expanded review process in place whereby we deliver a draft report to the Board and to NIOSH, and then we hold this meeting whereby it is basically a working draft, it is recorded, do we -- do we still want to go through the telephone review step? Because I think the expanded review cycle step really is -- accomplishes the same thing. And it would help -- preparing for that round-table meeting, getting everybody together, is a -- it's time-

consuming. It would probably lose a week 'cause each person is -- tries to get their thoughts together for the presentation. I'd sooner have everyone working on preparing their draft report, getting the draft set of 18 cases into your hands as a working work product and into the hands of NIOSH, and then have our expanded review cycle go on for -- for how long it's necessary to go through that process. This will give the Board and NIOSH an opportunity to see the document -- which is almost like redundant to the telephone arrangement. I don't know whether you would agree with that or not.

DR. ZIEMER: In some respects it is the -- I think the problem is the following: That each of these cases is fairly extensive, when you dig into the files.

DR. MAURO: Yes.

DR. ZIEMER: And it would be difficult, for example, if we put on the shoulders of two or three Board members the job of reviewing all 20 cases in preparation for that meeting, versus having individual teams where Roy is responsible for only three cases -- and

likewise I think each of us.

DR. MAURO: I understand.

DR. ZIEMER: We don't just get paid nearly as much as you guys do -- we don't think we do. That's really immaterial. I couldn't help saying it, though.

But I think -- I think it's more that issue of to what extent can we involve the full Board in the process in their ability to look at some cases in depth, versus having a few Board members cover all cases in less depth. That's -- that's the -- the Board can decide, I mean -- but I think that's sort of the nature of the issue. What do you guys think about the...

DR. DEHART: I certainly agree that it's important for the members of the Board to participate. The auditing procedure and policy as set up and -- is a Board function. We're required to have an audit. In that requirement I see it that we're required to participate. Now I don't know how many people participated in the phone conversations that were occurring in those reviews, probably some more than others, but I think it's important for each of us to have that opportunity.

DR. MAURO: That's fine. To go back to answer your question -- I'm sorry, I sort of diverted it for a minute 'cause it was a thought I had. Now your question was okay, we -- let's say the end of April we deliver to you the working draft -- well, it's between now and the end of April we'll have our telephone conference --

DR. ZIEMER: Right.

DR. MAURO: -- as we planned.

DR. ZIEMER: Right.

DR. MAURO: Then we will deliver a draft report. The draft report will look exactly like the final report --

DR. ZIEMER: Right.

DR. MAURO: -- except we're going to be delivering one more thing with that. This would be a letter, which would be -- which would be of the form similar to Mark's form except, to make life a little easier for everyone, in the first column we will identify every issue that we've -- and sort of like in summary form --

MR. GRIFFON: Right.

DR. MAURO: -- so that rather than reading 200, 300 pages, you can actually go down and say

here's the issues that we found out. And somehow as best we can -- I'm not quite sure -- capture each finding in some succinct way that's tractable, perhaps even could be put into a database.

DR. ZIEMER: Okay.

DR. MAURO: And then I presume that -- so then -- so that would be delivered. That will be delivered to the Board and to NIOSH as the first step in the expanded review cycle. Then the cycle begins.

DR. ZIEMER: Then NIOSH has a week -- or whatever it takes; we're not throwing a timetable on them, but they're estimating that about a week later they come back to you and they say here's the following factual errors. What happens now?

DR. MAURO: Right. They -- they send to us, as they did before -- here is what we -- on each one of the items that you've identified, here is our position regarding those items. We think you're in error here. We think -- we're -- in other words, that -- that would be the next column, so therefore --

DR. ZIEMER: Wait, wait, wait, I'm only talking

factual check here now, not -- not dealing with issues raised. You know, Jim's group says wait a minute, you guys have the wrong dataset here or what -- what kind of things do we find in the factual?

DR. NETON: I mean there may be issues like using procedures that have been superseded or out of date --

DR. ZIEMER: Oh, okay, right.

DR. NETON: -- or things -- things of that nature.

DR. ZIEMER: Yeah, at this point NIOSH is not debating the merits of findings. I think they're only checking for factual accuracy. And I'm saying once you get that information back, what -- then you make some modifications. Say oh, okay, well, this may have an effect on this finding or whatever, but you'll --

DR. MAURO: Exactly, then we're in what I call the home stretch. Now we have written material back from NIOSH which itemizes their -- the outcome of their factual review. Okay?

DR. ZIEMER: Right.

DR. MAURO: But then, what we did the last time, is we had a meeting.

DR. ZIEMER: Right.
DR. MAURO: Okay? And we had -- we actually had a meeting with NIOSH with -- with involvement of the Board.
DR. ZIEMER: Right.
DR. MAURO: Mark, you were there in January 12th. Unfortunately I didn't make that meeting. I was in Buffalo with you.
DR. ZIEMER: Right.
DR. MAURO: But there's a -- then we go through each and every one --
MR. GRIFFON: Where there was an issue, right.
DR. MAURO: There -- yeah, that was -- that -- in other words, right there we'll have on this -- in fact, quite frankly, on the same piece of paper we would have every issue that we've identified would all be there in some kind of succinct form. Right next to it, as appropriate, we will have NIOSH's statement regarding the factual accuracy of that position, finding, statement that we've made in column one. So column two, to varying degrees, will contain material that reflects NIOSH's perspective on each of the issues.
DR. ZIEMER: Right.

DR. MAURO: Okay. Then -- the next -- so now we -- we sit down and we -- we meet with NIOSH and -- and representatives of the Board. We record the meeting. We go over each and every item on the list. Then we're -- then SC&A goes back to the drawing board and we revise our working draft report and -- in a -- to be responsive --

DR. ZIEMER: Right, depending on --

DR. MAURO: -- to the factual --

DR. ZIEMER: You may say yes, we understand that position and we -- change, or NIOSH may do the same and -- and so there's another version that --

DR. MAURO: And then we deliver what I call to be the version you now have.

DR. ZIEMER: Right.

DR. MAURO: But there'll be one more thing that's going to come. That would be another column --

DR. ZIEMER: Right.

DR. MAURO: -- whereby it would be almost SC&A's perspective of how each issue has been closed or has not been closed. So it would be -- basically, as I understand it -- a three-

column table. Column one, SC&A's list of concerns, issues, findings; column two, NIOSH's perspective regarding factual accuracy regarding those issues; column three, SC&A's understanding of the status of each one of those issues as a result of the expanded review cycle that we went through, and that information would of course not only be captured on the table, but would be discussed in greater detail in the actual deliverable report, cross-referencing -- maybe this would be helpful; in that third column we would also cross-reference back to our report where that particular item is discussed.

DR. ZIEMER: To the extent possible, yeah.

DR. MAURO: To the extent we can do that. That seems to be a way of really moving the process toward closure.

DR. ZIEMER: Now how long after the factual accuracy check do you estimate -- assuming things are working smoothly, what's -- what's the turnaround time from factual accuracy to the next version, which is the --

DR. MAURO: Okay.

DR. ZIEMER: -- version that --

DR. MAURO: Our experiences -- that is, after we deliver the working draft, there is during that one-month period whereby there's the factual accuracy review process takes place. If that -- the -- at the end of that one-month period, we deliver, so it's a -- in other words, I think it's possible to go from delivery of the working draft to you folks and -- and NIOSH, sometime as early as possible following delivery we receive the write-up from NIOSH --

DR. ZIEMER: Yeah.

DR. MAURO: -- we hold our meeting, and then we probably need two weeks after the meeting to revise our report and deliver it. That is a little bit optimistic -- assuming that we don't have too many challenges -- but I think it's --

DR. ZIEMER: Well, wait -- then how long after the factual accuracy check before you would be ready for the meeting?

DR. MAURO: Okay. Aft-- I would say that once we get the material back from --

DR. ZIEMER: From NIOSH.

DR. MAURO: -- from NIOSH, within days, two -- just give us a chance to read them --

DR. ZIEMER: Well, I mean --
DR. MAURO: -- for us to --
DR. ZIEMER: -- are we kind of at a week, two weeks, a month?
DR. MAURO: Within a week. In other words, within a week of when we receive NIOSH's commentary on our material, we probably should hold our -- our meeting.
DR. ZIEMER: Ready for a meeting.
DR. MAURO: We should have our meeting. And then after the meeting, we need two weeks to revise our report and deliver it. That would be fast-tracking it.
MR. GRIFFON: I think we might want to -- you might want to think about this time line a little and present it tomorrow, too, because I think -- I'm getting confused between your factual accuracy description and your -- and your other comments, NIOSH -- not the NIO-- the issues. I think --
DR. ZIEMER: The issues --
MR. GRIFFON: -- that middle step of (unintelligible) --
DR. ZIEMER: -- discussion occurs after the factual accuracy check.

MR. GRIFFON: I understand that. I think --
DR. BEHLING: I'm not sure -- I raise a question of whether or not factual accuracy even comes into play here. That was done for Bethlehem Steel because we were looking at potential models that involved a surrogate facility. I think factual accuracy is really not an issue here. I think what we would do is point out certain things in our review process that may involve misrepresentation of a guidance that has been provided to the dose reconstructor, et cetera, but we're not really going to question the factual accuracy of those documents --
DR. ZIEMER: No, I think we're talking about NIOSH questioning your factual --
DR. BEHLING: Yes.
DR. ZIEMER: -- accuracy in your report, if there's something that's just --
DR. BEHLING: Well --
DR. ZIEMER: -- simply wrong.
DR. BEHLING: Yeah, I would assume that that's part of the -- their review of our draft that says here's what we found are potential issues that we wanted to raise, and they will come

back -- as they did the last time -- and say we disagree with you. That's really not necessary a factual accuracy. It's just an issue that they feel we may have made a mistake in making assumptions --

DR. ZIEMER: Well --

DR. BEHLING: -- it's just nothing more than -- than what we went through the last time.

DR. ZIEMER: Well, did we do a factual accuracy --

DR. BEHLING: No.

DR. ZIEMER: -- on the first set?

DR. BEHLING: We submitted -- the last time what happened was we submitted a report to the Advisory Board and concurrently provided the same report to NIOSH, who then reviewed the contents of that report and said your criticism is not necessarily something we agree with. And therefore at the last meeting in California, at Livermore, they came to the meeting with a list of issues that they felt were -- were unjustified criticism.

DR. ZIEMER: So -- yeah, so we had -- we specifically had factual accuracy on the -- on the site profile reviews. But Jim, can you

speak to this factual accuracy issue? Is that an important step or is it --

DR. NETON: I honestly don't recall that we did a factual accuracy review of the dose reconstructions, so I think the report was issued and -- and remember, we had the -- the problem that it was not released to the public because there was no factual accuracy review. I think that was the central issue was we believe that it --

DR. ZIEMER: Well, in fact were there factual issues in the report that --

DR. NETON: Yeah, there was a -- it was commingled issues -- I mean factual accuracy, but as Hans correctly pointed out, there were also philosophical issues and -- and (unintelligible) --

DR. ZIEMER: Well, let me -- let me rephrase this. Do we need a factual accuracy report or do you -- can you handle it all as one thing?

MR. GRIFFON: Just do it all as one thing.

DR. NETON: I suspect that we could. I'm a little bit reluctant to say we could turn around an entire review in a week, though.

DR. ZIEMER: Oh, no, I -- no, if -- if he's

talking about the entire review, that's something different.

DR. NETON: I think if we could expand --

DR. ZIEMER: I'm really asking do we need a factual accuracy review, in your mind, or can -- can you just...

DR. NETON: I don't think so. The more I think about this, I really feel that we can accomplish both -- kill two birds with one stone, so to speak.

DR. DEHART: If I remember correctly, it was -- during the conference call wasn't NIOSH represented?

DR. BEHLING: Yes, sir.

DR. DEHART: In that committee --

DR. ZIEMER: Yes.

DR. DEHART: -- y'all had somebody from NIOSH with you.

MR. GRIFFON: Right.

DR. NETON: That's correct.

DR. DEHART: So there was the first chance to -- if there was something that was clear, they could correct right then.

DR. NETON: Yeah, and -- it's not clear, is this -- is this report released to the public

at this point, though? I'm not clear about --
DR. ZIEMER: No, because it involves individual cases and -- and --
DR. NETON: Right, so --
DR. ZIEMER: And I don't think that was an issue at that time. We --
DR. NETON: See, that was our concern with the release to the public of a report that may have been way off-base on some factual accuracy issue. We just wanted the opportunity to --
DR. ZIEMER: Yeah, the site profiles were --
DR. NETON: The site profile, that makes some sense.
DR. ZIEMER: Right, right.
DR. NETON: But for these, I guess I would agree that a factual accuracy review and a technical review can be accomplished at the same time.
DR. ZIEMER: Okay. So now your review changes -- your first crack at it changes its form a bit, so now you're going to need a little more time to address technical issues, so you jump from one week to --
DR. NETON: At least two.
DR. ZIEMER: -- at least two -- Hans, right?

DR. NETON: And I'd like to say three, but --
DR. ZIEMER: I'm surprised you're that conservative, Jim.
DR. NETON: Well, I'd like to say three. I'm not speaking -- I'm speaking for the group that's going to have to do it. I don't really do the first pass on these, but --
DR. ZIEMER: Okay, but --
DR. WADE: Yeah, please say three.
DR. NETON: If I say three and no one will balk, I would appreciate the extra time.
MR. GRIFFON: Realistic, yeah.
DR. ZIEMER: So three weeks and you -- and basically now you have the next column --
DR. NETON: We'll fill in the next column, and then that would precipitate to the next meeting and (unintelligible) --
DR. ZIEMER: -- and then a revised document -- and you -- you folks now would need to respond to that, so you need what, a couple more weeks?
DR. MAURO: Yeah, I -- from our previous experience, I think it took at least two weeks to go from -- after the meeting to getting the product out as the final report.
DR. ZIEMER: Yeah, so we've got two to three

weeks.

DR. MAURO: Yeah.

DR. ZIEMER: So those two steps -- we've got six weeks after the first draft comes through.

DR. WADE: And just remind me, John, from the day you get the assignment, how long before you produce the first report? If we were to give you 20 cases, when would we expect that first report out?

DR. MAURO: I'm thinking about the first time through the pipeline, that actually took two months.

DR. WADE: Okay, that's fine. I just needed a time to -- that's fine.

DR. MAURO: Yeah, from the -- from the -- that is from receiving this set of -- first set of 20 to the meeting -- the telephone -- two-man team meeting to the delivery of the draft -- working -- working draft document that was not published, I think that took two months.

DR. WADE: That's fine.

DR. MAURO: Yeah. And then -- then --

DR. ZIEMER: Right, 'cause you assigned the cases out. Your individual folks are reviewing the --

DR. MAURO: Right, and that's a two-month --
DR. ZIEMER: -- (unintelligible).
DR. MAURO: -- and before we could actually have the product in your hands required two months, and then after that two-month period, then we move into the cycle you just described.
DR. WADE: And that's a six-week cycle.
DR. MAURO: And that's six weeks on top...
DR. WADE: That's fine. That's...
DR. ZIEMER: Lew, does that answer the question we need at this point --
DR. WADE: Right.
DR. ZIEMER: -- on a timetable?
DR. WADE: And again, where I'm -- where I'm trying to go with this is now to try and understand what the Board or the subcommittee would see as a year's work, how many cases do we want to do in a year given our understanding of this time line. 'Cause what I'm really trying to do is build an understanding of how much money we need to set aside to do the work you see in a year for this. So the question to the subcommittee -- I mean we don't have to decide this now, although we should talk a little bit about it, is in the course of a year

how many cases do we want to do, given the fact that it's --

DR. ZIEMER: This process is going to eat up two and a half to three months per 20 cases -- call it three months --

MR. GRIFFON: Right, three months, yeah.

DR. ZIEMER: -- so you -- at best, you can do four sets.

DR. WADE: Unless you run them in parallel, that's right.

DR. DEHART: We have two -- two sessions or two groups right now in the pipeline.

DR. WADE: That's right.

DR. ZIEMER: But they probably -- they may not be done in parallel. They may end up sequentially, in terms of --

DR. WADE: So I mean one logic would say two months for the first version, six weeks, that equals four months. You could do three batches a year, so that's 60 a year.

DR. ZIEMER: Yeah, uh-huh.

DR. WADE: Okay. I just wanted to get a sense of that. Then my next question, so you don't have to sit down, John, is what does it cost to do 60?

DR. MAURO: Okay. Right now we're operating on the basis of 40 work hours per case -- okay? Let me -- let me (unintelligible) -- the -- the --

MR. GRIFFON: But what's appropriated to this --

DR. MAURO: You want to talk about this here? I'll --

MR. GRIFFON: Okay.

DR. MAURO: We won't talk dollars, we'll talk work hours if --

DR. WADE: Work hours is fine.

DR. MAURO: Okay. Our experience is 40 work hours to get the product written. Then there is another eight hours per case for the quality control check, so 48 hours per case. Okay? Now we've delivered. Then we go into the expanded review cycle and our experience is the expanded review cycle to do a full set of 20 cases takes 300 work hours. Other words -- so the -- get moving through -- other words, we have basically two people working full time for a month during the expanded --

DR. ZIEMER: So that's another 15 hours per case.

DR. MAURO: That's what -- how -- it comes to about that, yeah. So in the end we're talking about for-- say 50 -- 65 work hours per case. That's what it's turning out to be. Now as Hans pointed out, we are now getting access to certain information that might greatly ex-- might improve our efficiency. But at the same time, we are moving into the advanced reviews -- I'm not sure how much different the advanced -- 'cause I don't know if you can get much more advanced than what we're doing. That is, we're really beating it, you know, pretty hard, so I'm not sure whether the advanced reviews are really of substantive difference. We'll find out as we move through these cases, but right now if you were to say what do you think, I don't think it's going to be -- I think it's in the fine structure. It's not going to be --

DR. ZIEMER: No.

DR. MAURO: Yeah, it's not going to change that 65 work hours per case.

DR. WADE: Okay, so we're looking at a period of performance of four months per set of cases, assuming a set is 20. That gives us 60 a year, and approximately 65 hours, without discussing

labor rates, to do a case. That's fine. That gives me what I need to -- to...

DR. ZIEMER: Any other questions on this topic now? We're going to have a draft prepared this evening which we can act on in the morning in terms of what the wrap-up will look like, and this will be something that, if we approve it, will be presented to the Board at the next meeting, together with the updated supplement material.

DR. WADE: On this general -- general topic, another --

DR. ZIEMER: Yeah.

DR. WADE: Hans has brought us to the point, but I think it would be good for us to close on this issue of workbooks and just get those issues on the table and make sure that we have an understanding and everything in place to do this as efficiently as possible. So the table has been set on that issue, John, but we haven't really closed on it, so...

DR. ZIEMER: What -- are there actions that need to be taken, or are you working this with NIOSH or what -- what's happening there?

DR. MAURO: We -- you may not have received

this yet, Paul and Lew. I sent out an e-mail yesterday late in the day which summarized some of the recent developments that were very important in terms of our being able to effectively and efficiently perform our reviews of the cases. Two of the developments deal with what's referred to as the workbooks and their associated spreadsheets. We recently received them. Stu Hinnefeld provided us with them. We've been using them. They certainly are helpful, but they're also -- we're really not -- they -- my sense is we need some training.

That is -- and there's -- an interesting aspect to this is, in effect, the workbooks and the spreadsheets are the de facto procedures that NIOSH is using to do dose reconstruction. They've automated it, almost becomes like an assembly line. Now -- so in a funny sort of way, we -- we did a critical review of the procedures, task three. Now we are in a situation where what we've been doing up until now is reviewing the cases directly against those procedures, which are substantial -- about 35 procedures. And as you know from our

critique of task three, it's a -- I use the word impenetrable. I'm sorry, but it's very difficult to read the site profile, read all the procedures, digest them all, understand exactly what they're trying to tell you, and then audit the case. Okay?

Now it turns out -- and -- but that's what we've been doing. Now it turns out, though, that the reality is that there are these spreadsheets, workbooks that help to automate the process. One of the things that I mentioned in my e-mail to you, Lew, recently is that since these spreadsheet workbooks are becoming de facto the automated process that's being applied, I think it's important -- one -- for us to map the spreadsheet workbooks back onto the original procedures that they're designed to implement. That audit -- that step needs to be done in effect as part of task three. In theory, under ideal circumstances, auditing the spreadsheet workbooks at the same time we audited the procedures might have been a very helpful and a -- in other words, because -- and -- and Jim, certainly correct me if I'm wrong, since the real place where the rubber

meets the road is these workbooks and spreadsheets, this is -- it's very important when we do our audits that we see how those are being used, how those redu-- take this massive amount of material that's contained in either the site profile -- not either, in the site profiles and in the 35 set of procedures that are generic, and somehow they're boiled down and turned into a spreadsheet that becomes an automated process, which certainly greatly expedites the process, but we have not audited that step. That's a very important step. Now two things happen. One, when we audit that step, we'll find out whether or not the line is clean. That is, we can see -- cradle to grave -- how we got to the spreadsheet and how it's being used. And then when we do our audits of a case, we'll see yes, we could track everything right back to OCAS-1, for example. Once we get that behind us and we're proficient in understanding and using the spreadsheets and the workbooks, something that I think we might need some training on -- because I don't think they were written to be used cold; I think someone needs to be -- a little bit of walk-

through on how to use them -- we will then be getting into a mode of operation where we might be able to get a lot more efficient. And that 65 work hours per case may come down. So you know, we're all maturing in this process. I'm not -- so I guess I'm making a request that a -- that if we could, as soon as possible, receive some training, make sure we have all the spreadsheets and workbooks, and then there's also access to certain electronic files that I mentioned that recently we didn't know about. That is, that we found out that we can download directly some very, very large files. We were having trouble getting access. Apparently we now have access to it, and this was in my e-mail to Lew and Paul was that the extent to which NIOSH folks involved in the process can sort of put their hat on is what is it that we could provide SC&A that might make a little easier for them to do their job, provide us with the workbooks earlier, provide us with access to databases or other information so that -- right now we're doing it by brute force. When I -- brute force is digesting all this material, trying to understand it,

condense it down so that we can do our job. There's material out there that would ex-- help us do our job, that would be greatly appreciated.

DR. ZIEMER: Rich or Jim, but do you want to speak to that general issue? Is this -- seem to make sense that, in essence, these do become de facto procedures and therefore ought to be...

DR. TOOHEY: Yeah, Dick Toohey, ORAU. I'm not sure if I agree they're de facto procedures, but they're certainly de facto the way sizeable portions of an individual dose reconstruction report get done. And what I want to clarify on that for the record is what is automated is the common elements in the site profile -- the ambient environmental dose, the X-ray dose, the missed dose for both external and internal -- all the things that would apply to all claimants from that site. And that is automated to improve our efficiency, but I want to make sure for the record that the subcommittee and the Board understands that the individual monitoring records are entered and pulled in, both external and internal, and we

use IMBA as necessary to run those.
But -- and the other thing I want to mention, as John mentioned, these are Excel spreadsheets that get assembled into workbooks. They also pull in some of the boilerplate, the required phraseology in the dose reconstruction report. And we've got pull-down menus for well, if you did the DR this way, then that paragraph has to be in the report and -- you know, all these things just to minimize the amount of typing a health physicist -- or keyboarding, I should say, a health physicist has to do to generate the final product.
And as John mentioned, yeah, we have provided all the current ones on the CD-ROM. I will mention, like everything else, these things change with time. As we may discover more data or revise a TBD or a site profile, then that gets incorporated into the workbook. So like anything else, when you're auditing something you're looking at a snapshot in time.
But certainly we can do that. We can probably, you know, set up some way to provide training for this or -- on using these or whatever. I would mention, though, one training session may

not meet your needs. Our experience has been that a -- you know, a fresh dose reconstructor whom we would hire anew, it takes them about six months to get proficient in using these tools in producing DR reports, but -- so I'm not surprised, you know, you guys, by the brute force method -- you know, you're condensing into a couple of months what we've been developing for two and a half years. I don't envy you the task.

DR. ZIEMER: Yeah. Rich, do you have a formal training program for your guys on these now, or do they just pick it up by using it? Is it a -- I mean --

DR. TOOHEY: They are -- there -- there is a -- I would say there's a semi-formal training program. What we have, we're getting more and more people specialized by site, so we have -- you know, these three or four guys, they do all the Hanford cases, so they know that spreadsheet.

DR. ZIEMER: I was really asking if there's a -- is there an existing training program that they could plug into or is it done on an ad hoc basis and --

DR. TOOHEY: No, on -- on the spreadsheets it's pretty much ad hoc. There is a formal training program for IMBA, which I think we made available and they use, but not on the spreadsheet. But --

DR. ZIEMER: But on the ad -- or -- so how do you -- how do your folks get trained, just by doing it or does somebody sit down and show them how --

DR. TOOHEY: It's OJT.

DR. ZIEMER: Yeah.

DR. TOOHEY: You know, one of the more experienced dose reconstructors, and probably somebody who helped developed the spreadsheet, sits down with somebody -- okay, here's how you use them and -- but actually it's a good point which -- I didn't realize, we do need to formalize and capture that, too, in the interest of defensibility of the produced dose reconstruction.

DR. ZIEMER: Yeah. Hans?

DR. BEHLING: Yeah, and I just want to make a point here is that we don't have the luxury of having Dr. Toohey's team of people who are specialized. You're looking at the team right

here. Okay? And I have to learn just about every TBD and know how it's to be applied, and my wife is the one who does all the computer work, so she will have to do many of the spreadsheets -- and she's done quite well; she's a very smart girl and she has learned a lot on her own. But I would like for her to be able to use the spreadsheets efficiently because it would help my process. And right now -- and John has talked about strong-arming this -- I go back to first principles and I have in fact done a very, very cursory quality assurance assessment of the spreadsheets because I go to first principles and say do I come within one, two percent of the numbers, and I have. So my verification at this point, in the absence of having the spreadsheets available for duplication of numbers, I use basically first principles and go through the motions, but it's time-consuming.

DR. ZIEMER: Yeah. But the good news is you can train the whole team in one fell swoop, see?

MR. GRIFFON: I would -- I would also ask if -- I don't know if all Board members would be

interested, but I certainly -- I got the -- some preliminary sheets from Jim Neton about probably nine months ago, I don't know when he sent them, but -- and with the caveat that these are not intuitively obvious to use. And at some point you did say it might be useful to have someone sit down -- I'd like to take advantage of that, too. I've also cross-walked them, but they're difficult to --

DR. ZIEMER: Well, if we had a couple of people maybe do it at the same time, if we can --

DR. NETON: Yeah, I think Dick is definitely willing to do that and we'd be willing to support that effort.

I'd like to point out a couple -- couple of things, though. One is that these workbooks evolved over time. The procedures do stand by themselves.

DR. ZIEMER: Uh-huh, good. Right.

DR. NETON: They are not the actual TBDs and profiles and the implemented procedures.

DR. ZIEMER: The procedures --

DR. NETON: I give these workbooks more like TurboTax compared to the U.S. Tax Code.

DR. ZIEMER: Right, right.

DR. NETON: You've got a very complex structure. It'll take you years to do your taxes if you try to plod through it line by line and looking through the books. If you have these workbooks, it'll certainly expedite the process.

DR. ZIEMER: But you're -- you always want to know that TurboTax is really following the Code.

DR. NETON: Exactly. But what I will say is these evolved over time and so that it may be that some of these products weren't even available at the time the audit started, I don't know. I mean I haven't looked at them. The other thing I might caution people on is that these things tend to address a very specific set of claims, in many cases. We worked through the efficiency process so there are large blocks of claims that can be done a certain way. These workbooks evolved in accordance with the procedures. You may spend a lot of time learning this -- these workbooks and these techniques, to find out that the next 500 dose reconstructions are now different and what you learned is obsolete. So just so the

Board understands that this is sort of a moving target that they're working to.

MR. GRIFFON: But there are similarities across these spreadsheets. I looked at various ones and there are a lot of similarities, too, so I think...

DR. TOOHEY: Yeah, let me add one thing. We haven't done it on too many cases so far, but some of the spreadsheets incorporate the Crystal Ball program under Excel, which is this Monte Carlo sampling of things we have to do where we're using distributions of variables and then try to get the combined uncertainty and the best estimate of the case.

DR. ZIEMER: Thank you.

DR. TOOHEY: And those things are well beyond my (unintelligible), also.

DR. ZIEMER: I'd like to ask the subcommittee now if you -- well, number one, do you need another break; and number two, do you want to continue on the -- tomorrow morning's agenda, or do you want to go ahead and break?

MR. GRIFFON: Well, do we -- just a question, if -- I'm certainly hoping for a break since I've been up since 3:30 this morning, but just

a question. If we wanted to -- since I'm going to work on this draft tonight with Roy, do we want to talk about -- 'cause I have some questions for content of that -- of that front end piece --

DR. ZIEMER: Yeah.

MR. GRIFFON: -- that I thought would be worthwhile discussing here.

DR. ZIEMER: Let's get those --

MR. GRIFFON: Okay.

DR. ZIEMER: -- before us before we leave then. Let's go ahead and do that.

MR. GRIFFON: I mean I think I mentioned the one about the DR reports. I thought that was an important thing that came out reviewing these first 20, the -- the way they were -- the amount of information the --

DR. ZIEMER: Communication with the claimants is --

MR. GRIFFON: Communication with the claimant, and also the auditability of the -- of the DR reports themselves.

DR. ZIEMER: That's really the audit trail --

MR. GRIFFON: Right.

DR. ZIEMER: -- issue.

MR. GRIFFON: Right.
DR. ZIEMER: Yeah, I had those two jotted down. Do we have some other ones we want to identify, any of the committee members would want to identify?
MR. GRIFFON: I mean certainly -- and Hans --
DR. ZIEMER: Those come under items for improvement, I believe.
MR. GRIFFON: Yes, yes, I think so. Hans brought up the one of some concerns about procedures. I think there was -- if there was any trend amongst the first 20 there was some question about the adherence to procedures. I'm not sure exactly how to word that right now if -- I want to look back at the findings, but it wasn't always adherence. Sometimes -- and -- and as Hans indicated, it wasn't -- it didn't seem as though it was necessarily the user. Sometime it seemed that it was a confusing documentation --
DR. ZIEMER: It was the issue of whether the procedures themselves were clear.
MR. GRIFFON: Right, right.
DR. ZIEMER: Whether somebody's adhering to poor procedures or somebody's ignoring good

procedures, or I think would be --

MR. GRIFFON: Hans had one case that the procedure might have been correct, but it was so --

DR. ZIEMER: Was hard to understand.

MR. GRIFFON: No, no, it was so tedious of a calculation that nobody bothered following it. That was the uncertainty calculation --

DR. BEHLING: And I'm sure Dr. Toohey can verify this, the implementation guide 001 has a certain protocol for defining the uncertainty in behalf of dosimeters, whether it's the 52 weekly change-outs to element film or the subsequent ones, but they basically tell you to go through a protocol that would probably take you years to do a dose reconstruction based on 52 individual for just a single year uncertainties. And I think no one follows it and therefore we're constantly saying you did not include uncertainty, and I understand why. You can't do it unless you want to invest a year of your life. And so the question is, is the procedure wrong? The answer is yes, they should simplify it. Multiply the dose of record by 1.3 and assume a 30 percent error or

uncertainty and solve the problem. So some of the procedures are written by people who have too much time on their hands or certainly don't understand the urgency behind doing dose reconstruction.

MR. GRIFFON: So we can try -- I can try to capture that. We can look at the specific language tomorrow, but -- then the other ones that I jotted down, and I'm not sure of some of these, but I think there were some general findings related to quality assurance questions, whether there was sufficient internal quality assurance. And you know, if we look at some of the findings that -- that sort of point toward that question of -- of the internal quality for -- you know, when -- when something gets reviewed by several people and there's -- maybe the -- you know, it didn't make a difference in the case, really, but there's some errors that were very basic that were just left there and missed on -- on several reviews. Those kinds of things I think came up several times, and I think it points to the -- or at least it raises the question of can the quality assurance -- internal quality

assurance be improved, you know.

DR. ZIEMER: Particularly if a finding, even the low-level ones, if there's a significant frequency reoccurrence, it probably should be mentioned.

MR. GRIFFON: Why not fix it now. Right?

DR. ZIEMER: Right, fix it.

DR. WADE: But again, I think all of this in the context of what the overall finding has been of the audit, I think that's important to start with.

DR. ZIEMER: Right.

DR. WADE: And these things make sense then.

MR. GRIFFON: Right, okay.

DR. ZIEMER: Yeah, these are all in the -- in the category of items for improvement, as opposed to significant issues that will affect compensation or doses.

MR. GRIFFON: Right. Right.

DR. ZIEMER: Any others?

MR. GRIFFON: Then the question -- and these are even -- these might be even a little lower than ones we just talked about, and these might be even notes or other things to -- other future considerations, I'm not sure how to

capture this, but the CATI reviews in the first -- in these cases was -- there were several cases where there didn't seem to be any follow-up on specific comments made by the claimant or the widow of the claimant. And we -- you know, you -- you look at it in two ways. In most cases, as we discussed with NIOSH in the group meeting, even if certain incidents -- they didn't go back to validate whether they did or did not happen. But even in most instances if they had, they were overly conservative already on the high five or the 28 radionuclides, so what's the difference. But the importance might come into play when you're writing that DR report. I think from a communications standpoint with the public, it's very important to say yes, we listened to you in the interview; we did consider this, and here's why our approach is still conservative, even -- notwithstanding your concerns about some incidents you might have been involved with. So -- so you know, there's sort of two levels there. One is, you know, just to communicate back to the claimant that you took their interview information seriously and did

consider it. But the second is, as you move forward, maybe when these cases get to the -- closer to the range of the 50 percentile, they -- that information might be important and -- and I -- I want to make sure we're not losing sight of that information and just sort of dismissing it out of hand. I don't think NIOSH is. We don't have that indication. But you know, just to put that on there.

DR. ZIEMER: It may be that you could just identify some items like that that are items -- it's kind of a watch-list, not necessarily that they have to take action --

MR. GRIFFON: Right.

DR. ZIEMER: -- but this is something we need to be watching, both in our future reviews -- it's more of a heads-up kind of list.

MR. GRIFFON: Exactly, yeah.

DR. ZIEMER: And maybe you can give it a -- categorize it in some way like that. Other -- other issues to maybe be cognizant of as we go forward that...

MR. GRIFFON: And I -- I think there is just one final one that I think -- in my mind, this is a bigger one. I'm not sure if other people

agree with me, but the question of validation and that -- the quick example is the high five question and whether -- whether in fact when -- when we did these 20 cases it was pretty clear that the dose records used were usually summary DOE dose records. And from the beginning of this program we've been talking about the reason for NIOSH and for the Board's involvement is -- you know, there's been mistrust over years about DOE records, so part of our role as NIOSH doing this dose reconstruction work and part of the Board's role is to make sure this is being validated against the raw data that's -- to the extent that it's there. And I -- I haven't seen any of that -- or not much of that in these cases. The high five's an example. There's not much -- I haven't seen many cases where they've tried to use two methods to calculate an intake, for example, if air sampling or -- or urinalysis data are both kind of sketchy but they're both available, did they try to do both to sort of validate their final intake numbers, to the ext-- you know, to the extent that it's helpful. So those are -- high five is probably

the clearest example I can give where --
DR. ZIEMER: Well, I'm wondering (unintelligible) --
MR. GRIFFON: -- (unintelligible).
DR. ZIEMER: Hans kind of brought this up, that -- on the high five that in doing the reviews of the dose reconstruction you sort of said well, I'm making the assumption that the high five is valid at this point; did they do the dose reconstruction correctly if that's the correct starting basis. But then you have to say okay, then you may need -- we may need a caveat that says oh, by the way, we need to give attention to this in the -- in the site profile reviews or in the Technical Basis Documents that -- that if the starting assumptions are themselves incorrect, then -- then your -- you have a different ball game.
DR. BEHLING: Yeah, I think the problem comes into play when you look at the balancing between empirical data that involves bioassay, urinalysis, chest counts, and balance that against the assumption of a hypothetical exposure using the high five. And what I usually do is -- and there have been cases

where they've done exactly what Mark had questioned. They do in fact look at the empirical data and say you know what, if we follow through on this and use even conservative assumptions on the basis of certain realization that the urinalysis was only done on a routine basis, once annually, we will not come up with a dose that we will assign to them as a hypothetical individual. And I've looked at that, and for the most part I think they have always -- consistently sided on the -- in favor of the claimant by being cautious and saying that no, I believe if we were to pursue the empirical dose assessment from -- from data, whether it's urinalysis, chest count, we will still come up short of the dose that we would assign by hypothetical. And they have done that, there's no question about it. And so I usually am confident -- I have no question about the -- the claimant favorability when you see a dose reconstruction that assigns a high five dose to somebody who's only worked there for one or two years. I would question it if the person worked from 1953 through 1989 or something and say is the high five truly

claimant favorable based on the potential that this individual worked within one of the production reactors where even the -- the integrated dose from non-monitored exposure could potentially exceed the high five, as favorable as it appears. And so there's where you start to look at things and sort of say is the high five truly claimant-favorable. In most instances it is, but for a person who may have worked there for 30 years or more in an environment where potential exposure could have occurred at a time when people weren't properly monitored, were not consistently monitored, you sort of have to look at that. And I do that, and I haven't found anything that would cause me any heartburn.

MR. GRIFFON: And this is one of those that it may not have affected the cases here, but it's something that could affect others, and I think that -- as Dick has stated -- they're careful in when they use the high five and when they don't, when they -- you know, so they won't -- they don't use it for all cases. Especially as they approach the 50th percentile they'll use other data. But I just think that is hanging

out there as a validation question. Another, just to get --

DR. ZIEMER: Mark, how are you proposing that be incorporated into this, though? This -- this -- this (unintelligible) --

MR. GRIFFON: Well, I guess --

DR. ZIEMER: -- category --

MR. GRIFFON: -- watch -- under the watch-list --

DR. ZIEMER: -- (unintelligible) --

MR. GRIFFON: -- I guess I would say. It also comes up in the -- in my eyes, anyway, in the Huntington Steel case. And again, I'm not sure it's -- I don't even remember what type of cancer that case was, so it may be a -- you know, they may have been very conservative in that case. The point on the -- from the exposure assessments side is that they made assumptions on the uranium enrichment that, according to NIOSH, are very conservative and compensate for not taking into account the -- word I love -- trace transuranic concentrations in the nickel. And maybe someone's run those numbers and checked that to make sure that that 39-percent enrichment is truly conservative,

given even the worst case estimates they can do the plutonium, neptunium in that nickel. I don't know, but I haven't seen it, so that's all I'm saying is if that -- you know, somehow that has to be validated. And those kind of issues are out there in the public, too. People know that this stuff had plutonium, neptunium in it. If they see that -- you know, you say we used conservative assumptions to demonstrate it wasn't a problem, they're going to be speculative, you know. So I think to the extent we can validate it, it strengthens the whole program, too, so...

DR. ZIEMER: Okay. Other items? So that -- that's also a watch list item then.

MR. GRIFFON: Yeah.

DR. ZIEMER: Okay. It looks like you have a good laundry list there to work into the narrative. Any other input for Mark and Roy for tonight?

DR. WADE: Godspeed.

DR. DEHART: Only after (unintelligible).

DR. ZIEMER: Tomorrow we'll be focusing on the Bethlehem Steel material. One item that's on our list for tomorrow and has 45 minutes set

aside for it, and I think it will take less than 45 seconds, the upcoming set of 18. I think we've covered that pretty much already. Didn't we agree that we've -- is there anything more to be said on that? I think we're -- the upcoming set of 18 -- we've already talked about the schedule and --

DR. BEHLING: Yeah, I'm pretty well on my way to reviewing those that other people have done, as well as doing a good number of those 18 myself. There's still a few left, and some of them may be time-consuming because they --

DR. ZIEMER: Yeah.

DR. BEHLING: -- involve TBDs that I have yet to even look at.

DR. ZIEMER: Right.

DR. BEHLING: But I think we're pretty much on our way and -- and right now the only difference that I can sort of identify between the first 20 and the subsequent 18 we're currently reviewing is the involvement of workbooks, Excel sheets, Crystal Ball and a few other things.

DR. ZIEMER: Yeah.

DR. BEHLING: And that has certainly been a

change from the first 20.

DR. ZIEMER: Yeah, thank you. But -- and I think, Lew, you got the information you needed for a timetable on those also, right?

DR. WADE: Right. I think that while that will free up time tomorrow, we need time to do some of the agenda items that Mark brought to us.

DR. ZIEMER: Right, right.

DR. WADE: So I think it's worthwhile --

DR. ZIEMER: Right, that's why I was asking the question because that would determine whether we needed to go much longer today or not. I want to make sure that we're done by the stated adjourning time.

DR. WADE: I think we have time tomorrow to do what we need to do.

DR. ZIEMER: Then I think we're probably prepared to recess, since we do have some work assignments tonight. We don't want Mark staying up till 3:00 again.

DR. WADE: Unless it's absolutely necessary.

DR. ZIEMER: Right. Okay, we'll recess then till tomorrow morning. We're -- I don't have 15 minutes worth of opening remarks. I don't know if you do, either, Lew, but we'll try to

start right promptly at 8:30 and we'll -- that'll give us three good hours to work. Thank you very much.

DR. WADE: Thank you.

(Whereupon, the subcommittee adjourned at 4:00 p.m.)

MARCH 25, 2005

P R O C E E D I N G S

(8:37 a.m.)

OPENING REMARKS

DR. ZIEMER: Good morning, everyone. I'd like to call the meeting to order. We have some carry-over business from yesterday, the first item of which is the action on the minutes from our last subcommittee meeting. Before we actually act on that, let me take a moment here for some housekeeping things. Cori had a couple of items she wanted to call to the attention of the Board.

Let's do that first, Cori, and then we'll address the minutes.

ADMINISTRATIVE HOUSEKEEPING

MS. HOMER: I just wanted to let you know that due to some travel processing changes at CDC there -- I will need your travel vouchers, receipts and all of your information by the end of the day in order to process your voucher and get it paid. We have a deadline of the end of the month to get these in or they won't be reimbursed till the end of April.

MR. GRIFFON: What about -- what about like airport parking and things that we don't have yet?

MS. HOMER: That's about it.

DR. ZIEMER: Well, I think that the issue then is if -- if you don't get them in by the end of the day, you'll get reimbursed in April instead of March.

MS. HOMER: Pretty much. If you mail them to me it just simply won't arrive in time for me to process them.

DR. ZIEMER: Okay. But you do need the receipts, I assume, and --

MS. HOMER: Yeah, once you check out you can provide me --

DR. DEHART: Parking doesn't -- isn't --

MR. GRIFFON: Yeah --

MS. HOMER: Or you can just send me an e-mail with your parking information, but it's the -- it's the hotel receipt that I really need.

DR. ZIEMER: Okay. Okay, everybody? One other item, again I'll remind all the Board members and others who are here to -- if you haven't done so, to register your attendance there -- in the book there on the table.

REVIEW AND APPROVAL OF MINUTES, MEETING 3

Now let's turn our attention to the minutes. Are there any corrections or additions to the summary minutes and the minutes for the February 7th meeting of the subcommittee?

(No responses)

DR. ZIEMER: No additions or corrections?

DR. DEHART: I move their acceptance.

DR. ZIEMER: Move their acceptance.

DR. ANDERSON: Second.

DR. ZIEMER: Seconded. All in favor, aye?

(Affirmative responses)

DR. ZIEMER: Opposed, no?

(No responses)

DR. ZIEMER: Motion carries. Thank you very much.

We're going to continue with the material from yesterday. We have a report from our working group.

Before we do that, Lew, you had some additional comments I think you wanted to make. Do you want to wait till after this to make comments about the rest of the agenda, or have you covered everything you were going to --

DR. WADE: The only things that I haven't

covered that -- in very specific detail, we -- I think we should talk a little bit about the SC&A review of the Iowa TBD -- not content-wise, but just from a procedural point of view. I also think it would be good for the Board to consider -- the subcommittee to consider whether or not we would like to have Board members with Q clearances look at some material surrounding the Iowa TBD, as that might be relevant to the Board's deliberations when we meet the end of April. So I think it would be worthwhile exploring that as a subcommittee, and we are a subcommittee that looks at site profile reviews; I think that would be okay to do.

I also don't know that it would be a bad idea to start a discussion here that I think would then terminate on our phone call of are there specific questions we would like to pose to SC&A as they report out on their review of the Iowa TBD. Again, I don't think we need to close on that, but I think we might want to anticipate what questions we might be asking them when they come before us the end of April, and at least give them a heads-up on that now

so they could begin to prepare their work. We don't need to do that, but I think it would be worth talking about.

I do think then we have an issue to discuss about preparing to have SC&A available to do SEC work for us and what that would exactly involve. Again, that's not something we can close on here, but I think it is something we could talk a little bit about here -- again, in anticipation of our phone call by -- in early April.

Thank you.

FIRST 20 DOSE RECONSTRUCTION REPORT

DR. ZIEMER: Thank you. Okay, let's now turn our attention to the first 20 dose reconstruction report and, Mark, do you want to lead us through the draft of the working group here? Are there copies available for others or just --

DR. WADE: Cori is making them.

DR. ZIEMER: Copies for the others, okay.

MR. GRIFFON: You want me to read through the entire text or just describe the --

DR. ZIEMER: I don't know that you need to read through it word for word, but --

MR. GRIFFON: No, right, I'll take --
DR. ZIEMER: -- make -- make --
MR. GRIFFON: -- you through the document.
DR. ZIEMER: I think you should take us through it and --
MR. GRIFFON: Sure.
DR. ZIEMER: -- let us comment on the different sections. Also, I think -- just for clarity, I would suggest that you go ahead and mark this draft with a date, everybody, 'cause on some of these documents we get subsequent drafts and you -- I know going back in the files I sometimes lose track of which preceded which. So this is the draft of -- let's use today's date -- one of 3/25/05.
MR. GRIFFON: Okay. There's probably some -- many more edits than that. Okay. Basically what Roy and I tried to do last night and I -- I did some additional editing this morning on this -- was to first -- the first couple of paragraph tried to lay out a little background, and I --
DR. ZIEMER: We're getting reverb here on these mikes, we -- that's better.
MR. GIBSON: Dr. Ziemer, I didn't get a copy.

DR. ZIEMER: Another copy? Mike didn't get a copy -- oh, she's running some off right now. Just memorize everything he says.

MR. GRIFFON: Yeah, that's why I'll go through it, and once we have the full text, everybody can (unintelligible).

DR. DEHART: (Off microphone) (Unintelligible).

MR. GRIFFON: The first couple of paragraphs attempt to go through some of the background of what this -- what we believe this audit is, describe it a little bit. Also describe the -- the sort of case selection and the cases available for sampling at this point. And then it summarizes the -- or it sort of references that this -- this report is based on our contractor SCA's full report of the 20 reviews --

Shall I wait till everybody has the...

DR. WADE: Okay, we're giving out to the public the document that's being discussed now.

(Pause)

DR. ZIEMER: Mark, while -- while you're talking about this introductory stuff, right at the beginning where it talks about -- you're going to have a number inserted, which would be

-- is that the number of cases that were available at the time the 20 were selected, or the...

MR. GRIFFON: Right, that's correct.

DR. ZIEMER: Somehow we have to make it clear that -- however -- that those are not the only 20 to be selected from that -- it may sound like out of that group there's only going to be 20 cases audited. That's not the case here. Somehow we -- and I'm not -- I don't have the wording for you --

MR. GRIFFON: Yeah, I know.

DR. ZIEMER: -- but somehow we have to convey the idea that this is an initial sampling and perhaps even indicate, if we -- we were going to discuss this -- out of -- with the ultimate goal to sample let's say two and a half percent of the total cases. But if we can insert that idea so that it's clear that this 20 does not represent all of the sampling from that first batch.

MR. GRIFFON: Well, or -- or that -- yeah, somehow convey that those -- those cases will go back into the full pool to be re-- to be potentially sampled from. Right? Is that what

you're --
DR. ZIEMER: No -- no, these won't go back into the --
MR. GRIFFON: No --
DR. ZIEMER: -- these 20.
MR. GRIFFON: -- the -- the --
DR. ANDERSON: But the ones that were passed over.
MR. GRIFFON: Right.
DR. ZIEMER: Well, right, will -- right.
MR. GRIFFON: Going back into a bigger --
DR. ZIEMER: Right.
MR. GRIFFON: -- a growing pool, sort of -- yeah.
DR. ZIEMER: Right. Right.
DR. WADE: But I think Paul's --
MR. GRIFFON: I just don't know how to phrase that.
DR. WADE: But I think Paul's concept is that the Board currently thinks it would be appropriate for it to have audited two and a half percent of individual dose reconstructions, and this is but a first --
DR. ZIEMER: This is simply --
DR. WADE: -- step in that.

DR. ZIEMER: -- an initial 20 -- an initial sampling of 20 cases.

MR. GRIFFON: We should convey that right up front, I agree.

DR. ZIEMER: Okay. And we can do the word-smithing --

DR. ANDERSON: (Unintelligible) insert a sentence after the first sentence, because that -- we -- we did have a resolution to do two --

DR. ZIEMER: Right.

DR. ANDERSON: -- and a half percent, so --

DR. ZIEMER: Yeah.

DR. ANDERSON: -- you could simply say that the -- you know, the goal of the -- is to sample two percent of all cases --

DR. ZIEMER: Yeah, or --

DR. ANDERSON: -- two and a half.

DR. ZIEMER: Two and a half percent of all cases, and this is an initial --

DR. ANDERSON: Yeah.

DR. ZIEMER: -- 20 cases that we're looking at, and that would clarify it. Right?

DR. WADE: Although further sampling from this population may occur.

DR. ZIEMER: Uh-huh.

MR. GRIFFON: Yeah. Okay.
DR. ZIEMER: Thank you. Proceed.
(Pause)
MR. GRIFFON: Sorry, just capturing those words.
Okay. And -- and -- so it does reference back to SC&A's full report, the third paragraph, and then I left a area for inserting a table of these 20 cases, just that descriptive table that we first drew our selection from. I thought that was appropriate so people have some kind of --
DR. ZIEMER: Type of case, location and so on.
MR. GRIFFON: Right.
DR. ZIEMER: Okay, right.
MR. GRIFFON: Yeah. And we can -- I can -- we can obtain that. Right? We have that --
DR. ZIEMER: Right.
MR. GRIFFON: -- on disk or whatever. Okay. Then I -- in the next paragraph I sort of referenced three different attachments here, the first being the SCA summary findings and I have a note in here that I think we need to discuss -- and maybe -- certainly with SC&A, but as I was writing this I felt that it was

sort of very difficult to explain why the summary findings only cover 15 of the cases, not all 20, and whether -- the question came up in my mind as to whether we can -- I know there's different issues, but whether we can make one matrix that would cover all issues and many of those -- maybe some of the issues listed --

DR. ZIEMER: Or -- or --

MR. GRIFFON: -- are not going to be applicable for DOE sites or for AW-- you know, but I think -- you know, one database for all the cases might be important for us down the line, so --

DR. ZIEMER: Let's explore that a moment.

MR. GRIFFON: Yeah.

DR. ZIEMER: What about a -- and it may be a different matrix, but what if there was a separate one to cover the type -- those -- I think it's -- is it AWEs, mainly? I don't know that you necessarily have to commit to this right now, but how -- how might we capture, for example, deficiencies, findings and so on for those other types of cases, like the other five? Is that a different table?

DR. BEHLING: We have not really attempted

that, but as I mentioned yesterday briefly, there are or there will be AWEs that are very, very suitable for the standard checklist that we identified. And a case in point is the Iowa where we do have attempts to identify dosimetry data for photons, neutrons, et cetera -- which was not the case for, for instance, Bethlehem Steel. There was absolutely zero data on which to backtrack or extrapolate from. As we mentioned yesterday, Bethlehem Steel has no dosimetry data, no bioassay data, very little air monitoring data that even applies to Bethlehem Steel itself, so there was very little in the current checklist that we could have made use of other than to keep checking off NA and then write a synopsis, perhaps, that explains what it is that we did find.

On the other hand, there will be AWEs, as the case -- with the Iowa, where we can very easily apply the current checklist. So I can't say categorically that all AWEs will not be evaluated by means of the checklist.

DR. ZIEMER: No, I understand. But I'm wondering if there is some kind of a wrap-up sheet -- it may be a different sheet than the

15.

DR. BEHLING: We haven't done so, but --

DR. ZIEMER: No, I understand.

DR. BEHLING: -- we can certainly look at it. We can certainly make an attempt to go back and identify perhaps a separate type of checklist for those AWEs for which this current checklist is not appropriate.

DR. ZIEMER: Yeah, and basically, even if there's not a checklist for -- a check sheet for each case, how do we roll up the findings for those five that don't appear in this -- they don't appear in this table.

DR. MAURO: Yeah, when we were putting this together and Hans said listen, we have our checklist that we're using, the one that you see, he says can you somehow -- 'cause I did the first five. And I said you know, they're all going to be NAs 'cause they were all based on -- turned out to be Huntington, Blockson and Bethlehem Steel, as Hans pointed out. So what I did instead was, in the beginning of each one I have a little table. Each table basically summarizes the degree to which that particular dose reconstruction was either -- had any

inadequacies regarding how they went about reconstructing the external doses, the internal doses.

So in other words, think of it like this: All of these dose reconstructions are reconstructing the internal doses, the -- the external doses and the X-ray doses. I mean they're all really the same, when all is said and done. But the methods by which that's done are very often substantively different in the AWEs as compared -- so -- so in theory, I could prepare -- or we could prepare, to the extent that we could use the format for the others -- as Hans pointed out, for Iowa -- do that.

To the extent that we have AWE cases that we have nothing but NAs in that format, then I think we probably -- we certainly can come up with something a little different that would address -- okay, let's talk Bethlehem Steel. Okay? The question becomes, you know, how -- you know, how well did the dose reconstruction perform in doing internal doses, did we find certain deficiencies; and the answer would be yes, we did find some deficiencies. Check -- or put a mark there.

So I guess I'm saying that in theory, for those AWEs where the reconstruction was based solely on some construct of a model, as opposed to real bioassay data, a different form for the roll-up I think might be necessary and I think would serve the process better.

MR. GRIFFON: I guess -- I guess what I'm asking for -- maybe it's a little more unyielding -- is just let's have one form, and I think it can be done. I've looked at these questions.

DR. MAURO: Okay.

MR. GRIFFON: I'm not saying that the AWEs fit in the current form. I'm saying add some different questions.

DR. MAURO: Some additional --

MR. GRIFFON: Under external dose, of course they didn't have dosimetry, but there can be a question that says, you know, did they, you know, estimate external dose in an appropriate --

DR. MAURO: Put it (unintelligible).

MR. GRIFFON: -- put it in in an appropriate manner to determine PO-- you know, whatever the question is.

DR. MAURO: Marry the two. Right.
MR. GRIFFON: Marry the -- marry the two.
DR. ZIEMER: So maybe it's an -- maybe it's --
MR. GRIFFON: Otherwise --
DR. ZIEMER: -- an additional --
MR. GRIFFON: -- we're going to have these -- these -- you know.
DR. MAURO: Yeah.
DR. ZIEMER: Is it then perhaps an additional --
MR. GRIFFON: Additional line --
DR. ZIEMER: -- few rows in these different categories.
MR. GRIFFON: Under each -- under each section or an additional couple, I don't know how man-- you know.
DR. ZIEMER: That are specific to those kind of cases.
DR. MAURO: In fact, it -- as a thought, it might be worthwhile breaking out -- the table itself would have -- separate out. Okay, here's the -- here -- you know, here's the roll-up. Now, here's the roll-up and the roll-up would say here's the roll-up for the 15 DOEs and here's the roll-up for the five -- in this

case, the first set, the five -- AWEs, all on the same form. And you'll be able to make a distinction between the types of findings that we -- because the types of findings are different regarding AWEs versus -- I mean -- in fact, it might be useful to see a distinction because I think that understanding that there is some substantive differences between the strengths and limitations of a -- of a dose reconstruction that's done for DOE facilities and -- it's of a different issue regarding the strengths and limitations. The -- of -- in essence -- in essence, the way I see it is the construct that's used for AWEs to come to grips with a site where you have virtually minimal, if not -- data is a different category of problem. And you may want to be able to look at it for a different perspective. Perhaps in the same table, but have it broken out. It might work better that way.

MR. GRIFFON: I don't disagree necessarily with that. I mean the -- the presentation I think we can work with, and I think that should be a query-able field, you know.

DR. MAURO: Yeah.

MR. GRIFFON: You should be able to sort AWE findings from DOE find-- that's interesting --
DR. MAURO: Yeah.
MR. GRIFFON: -- 'cause I think you're right, there would be probably different conclusions or different kinds of problems, you know.
DR. MAURO: They're different, and I'd go a step further --
MR. GRIFFON: However, I think it's useful to see -- see (unintelligible) --
DR. MAURO: All in the same place.
MR. GRIFFON: Right.
DR. MAURO: And what is also -- I'm sorry -- what's also interesting is that when you start to see trends, there's going -- a -- a story emerges. I mean actually from the data, a story emerges. And I think the story that emerges when you start to roll up information for AWEs is a completely different story than emerges when you look at the DOEs, and you want to be able to see that.
DR. ZIEMER: Thank you, John. What I -- I'm going to suggest that if -- if SCA can do this, and I don't -- I'm not talking about a major effort here, but when we have our Board meeting

where we act on this next time, if we could have the additional information rolled up. And I'm wondering if -- if we could agree, for example -- I don't want the Board to end up spending a major part of their time focusing on what the form looks like. This could evolve over a series of sets -- you know, you could say okay, we did it this way, but the next 20 we want to massage it a little bit. But as long as we have some kind of a wrap-up next time that we can utilize with our narrative here, that would be helpful.

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

DR. ZIEMER: And I think SCA realizes -- realizes what we're asking for here.

MR. GRIFFON: Yeah, and I think it --

DR. ZIEMER: I mean we'd sort of like to get them integrated into a summary.

MR. GRIFFON: Right.

DR. ZIEMER: That would make it clear that there's still the two kinds of animals in there, so --

DR. MAURO: We'll do that.

DR. ZIEMER: Yeah. And then --

MR. GRIFFON: So I think I can reword that and

say summary findings of the 20 cases --
DR. ZIEMER: Right, would be --
MR. GRIFFON: -- you know, are presented.
DR. ZIEMER: Right.
MR. GRIFFON: Yeah. And then the total number of deficiencies identified in the 20 cases, and we'll have a new number there instead of 46 or whatever.
DR. ZIEMER: Now I'd like to insert something else at this point. I didn't get to read this in full detail, but I pretty well skimmed it and I -- let me ask this. Have we described in here the SC&A process, including the NIOSH interactions, that get us to this report. In other words, have we pointed out that there have been the factual accurac-- well, not -- there wasn't factual accuracy checks, but there have been --
MR. GRIFFON: The only -- I didn't --
DR. ZIEMER: -- sort of resolution of issues efforts made in this process.
MR. GRIFFON: You -- you can tell me if I need to -- to lay this process out more. I -- the only place I referenced it is in one short paragraph right before the numbered conclusions

and recommendations where it says (reading) By considering the audit findings in aggregate and through discussions with NIOSH, SCA and the Board during the expanded review meeting -- which I think is what John Mauro has been referencing that as -- January, 2005 in McLean, Virginia, several conclusions are offered for consideration.

So that -- that's -- that was sort of referenced as this was the process with NIOSH, SCA and the Board involved. I didn't say comment resolution meeting. I referenced it as John was saying, the expanded review meeting, which I think -- you know.

DR. ZIEMER: That's good. That's what I was referring to.

MR. GRIFFON: Yeah.

DR. ZIEMER: Maybe -- maybe that has to be explained a little more to --

DR. ANDERSON: You may want to put after (unintelligible) just got through in that sentence, iterative -- 'cause this was kind of a back and forth.

MR. GRIFFON: Iterative discussions?

DR. ANDERSON: Yeah.

MR. GRIFFON: I'm okay with that, if -- if...
DR. ZIEMER: Well, I think the idea here is to give it a little more detail on the process because this -- this is a summary report (unintelligible).
MR. GRIFFON: All right.
DR. ZIEMER: Is that okay with the others? Okay, proceed.
MR. GRIFFON: And I might tap others for the process, if I -- if I forget exactly how we did this.
DR. BEHLING: Can I just make a comment? Mark --
DR. ZIEMER: Yes, Hans?
DR. BEHLING: -- take a look at page three of the report and I think you will find that I went through detail in explaining the chronology of events that led up through the expanded process, the dates, every (unintelligible) --
DR. ZIEMER: And maybe we can -- we don't need -- we can summarize that chronology.
DR. BEHLING: Yeah.
MR. GRIFFON: May I can pull some language from that, too.

DR. BEHLING: Yeah, I think you want to make sure that the two parallel each other --
DR. ZIEMER: Yes, thank you --
DR. BEHLING: -- at a minimum.
DR. ZIEMER: -- that's helpful.
MR. GRIFFON: Thank you, yeah. So then -- then going back to page one, I -- one point I wanted to make in that -- that large paragraph at the bottom of the page is -- and I -- I fooled around with this this morning. I told Roy that -- that I -- I think I -- I kind of went back and forth between findings and deficiencies, and I -- I think we need to -- to be consistent, or are those sometimes used dif-- as different terms of art in SC&A's report or narratives? I've been kind of loose with the way I've been -- actually I -- I've usually -- in the matrix we developed I think I've been referring to them as just findings, but SC&A in their summary table uses deficiencies. I want to --
DR. ZIEMER: Yes, but you've used deficiencies in a collective manner that -- then --
MR. GRIFFON: Yeah, I --
DR. ZIEMER: -- and then within the

deficiencies they grouped into several levels of importance. Right?

DR. MAURO: Yes, but it's -- turns out we have used one set of terminology when we work on our site profile reviews where we do make a very concerted effort to make a distinction between findings and observations. And I think unfortunately we have not been as disciplined in terms of communicating our findings and observations, deficiencies -- we've been a little looser in our language. We have been -- we refer to it in some cases as areas of concern. In some cases we say deficiency. So I -- perhaps there's a need for somehow developing a more precise characterization about findings. In our dose reconstruction reviews we really have not done that. We've been a little looser with regard to that.

MR. GRIFFON: I might at this point -- I think in most cases I'm going to edit this and use findings as the term.

DR. WADE: I think that would be appropriate.

MR. GRIFFON: Yeah, so just to (unintelligible) in my mind.

And then the second paragraph sort of -- I'm

not sure if I needed a new paragraph, but I -- I transition from the SC&A summary sheet to sort of the Board's ranking method and distinguish why in fact we have this other matrix and -- and the utility of the other matrix is brought up on the top of the second page. And I thought -- and I just added this this morning, but I thought -- I think it would be useful, since we have a different ranking system here where we're looking at -- at case ranking and broader ranking, and that -- those terms can certainly be modified. But we should at least summarize what we have in this -- in this attachment, rather than just leaving it hang there for -- for no overall use, apparently. So I left some Xs there because, as we discussed yesterday, we don't have all the findings in that table currently so we still have to -- to fill that out. But I thought that would be useful and -- and -- you know.

And I also -- if you noticed, I put low level, medium level and high level, which is actually different than I had originally had in our matrix, which was zero to five, a numerical

ranking. But I wanted to sort of make it consistent at least with the SC&A approach so we -- I think we have to maybe modify one or the other, I'm not sure.

DR. ZIEMER: So basically you're going from a five rank to a -- did we use any decimals, or was it --

MR. GRIFFON: No, we didn't --

DR. ZIEMER: This is a 3.47.

DR. WADE: We will eventually; we haven't yet.

DR. ZIEMER: So you're saying you would go low, medium, high rather than -- or --

MR. GRIFFON: I guess I'm -- I'm opening --

DR. ZIEMER: -- or words --

MR. GRIFFON: -- I'm willing to --

DR. ZIEMER: -- in words -- words or one, two, three.

MR. GRIFFON: I'm willing to do that or -- or, yeah, the numerical ran-- I think they're -- low, medium, high for this level of qualitative ranking I think suffices, you know, so that would be my --

DR. ZIEMER: How do the rest of you feel about that, as a --

(Affirmative responses)

DR. ZIEMER: That seems to be okay.
DR. WADE: Can I comment upon those paragraphs? And it goes to the first of the paragraphs we're discussing. In the middle it says (reading) Although SC&A considered the majority of findings, 42 of 46, to be low level -- I would just like to see -- would suggest that you finish that thought completely. The SC&A document had 46 low and four medium and no high. I think that's important to include, just to finish -- even parenthetically, if -- because it leaves over --
DR. ZIEMER: What were the other four, yeah.
DR. WADE: What were the other four, that's right.
MR. GRIFFON: With four medium findings --
DR. WADE: And no high.
MR. GRIFFON: -- parenthetically, okay.
DR. WADE: Right.
DR. ZIEMER: So this is all sort of intro --
MR. GRIFFON: Right.
DR. ZIEMER: -- and then you have your conclusions. So all that -- let's --
MR. GRIFFON: Right.
DR. ZIEMER: Anything else on this introductory

material? So you would have a table describing the cases, you have the SC&A wrap-up table, you'd have our matrix table --

MR. GRIFFON: Uh-oh, we're out of line.

MS. HOMOKI-TITUS: I have a quick question -- Liz Homoki-Titus with General Counsel's -- when -- in your first introductory paragraph could you just include some language out of the statute saying why you're doing this, just for the Secretary's office?

DR. ZIEMER: Oh, yeah, yeah. This document would --

MS. HOMOKI-TITUS: I can send to Lew what to put in there.

DR. ZIEMER: Right. Right.

MS. HOMOKI-TITUS: Thanks.

DR. WADE: Made us nervous when she got up.

MR. GRIFFON: Yeah.

DR. MAURO: If I may, just one observation, a nuance, that I want to make sure that -- when we did our review of the cases, we found, for example, a case where the dose may have been overestimated by a factor of 1,000. Now, that's an enormous number, but it still -- the outcome in that particular case was still non-

compensable. Now you ask yourself the question, is that low, medium or high when someone makes an error that underestimates a dose by a factor of 1,000 or overestimates the dose by a factor of 1,000 because of a major error in the calculation? If it still doesn't anywhere near come near having an effect on the PC outcome, we gave it a -- not important. So it's a -- it's a funny -- so we have ourselves a little bit of a dilemma.

DR. ZIEMER: Yeah, right, and we need to --

MR. GRIFFON: And also --

DR. ZIEMER: -- make clear that when we talk about significance, it's significance with respect to compensability as opposed to the technical value of dose --

MR. GRIFFON: Well, significance with --

DR. ZIEMER: -- or it could be --

MR. GRIFFON: -- respect to the dose estimate for the particular case.

DR. ZIEMER: Well, I think John's point is that the dose could be significantly in error, from a scientific point of view, because of the process where we're intentionally overestimating, but it does not affect

compensability of -- it doesn't affect the decision on compensability, which is the ultimate issue. We may need to clarify, though, what it is we're talking about when we talk about significance.

MR. GRIFFON: Right. Right, right. I -- yeah, I just think we -- I think we need to do a little more discussion, too, on how much our audit can look at the -- whether or not cases were found to be likely overturned or compensable. You know, this -- this footnote three worries me a little, given our scope of work in our charge. You know, this seems to be stepping into the Department of Labor realm of -- of work on this whole compensation program, you know, that impacts the dose and may also impact compensability of the case. We -- we -- in the scope of work we weren't -- we weren't charged, and neither was our contractor, in looking at compensability of these cases. So I know they said -- like may, may affect.

DR. WADE: That would be my reaction. I think the word may in there -- I find this acceptable. Now if the Board is -- has trouble with it, we can talk about it, but I also think

from the point of view of conducting an audit of the dose reconstruction process we do want to come as close as we can to that final question because that's the question that really dictates whether NIOSH is doing a good job. So I don't want us to just back away from this too much. The question is, is the Board comfortable with this as it's written with the word "may".

MR. GRIFFON: I guess the words we kept using in the scope -- and this was like after probably 30 edits -- was that the -- the approach was sufficient for the purposes of determining probability of causation.

DR. ZIEMER: Right, and if we can convey that --

MR. GRIFFON: And I think that --

DR. ZIEMER: -- but what we don't want to convey, I don't think, is -- for example, these cases where there is an intentional overestimate, that --

DR. ANDERSON: But I don't think we (unintelligible) say that --

DR. ZIEMER: -- that we come up --

DR. ANDERSON: -- it was intentional. I think

he's saying that an error was not -- it has nothing to do with the intentional overestimate.

MR. GRIFFON: Right, this was --

DR. ANDERSON: It was an error in the calculation.

UNIDENTIFIED: No.

MR. GRIFFON: That's correct, that's --

DR. ZIEMER: Well, it could be both, I guess.

DR. MAURO: It could be both.

DR. ZIEMER: It could be both, particularly where there were disagreements as to how you go about doing the overestimating.

DR. MAURO: Yeah, we've seen both. In Rocky Flats cases we've seen deliberate overestimates which are clearly communicated in the report -- the dose reconstruction report where it made it clear that listen, we're doing a deliberate overestimate here for efficiency. However, in other cases we found -- it's clear that there was a typo. The wrong number was put into IMBA and -- and the dose came out 1,000 -- 4,000 times higher and still was not compensable, so there are those -- both (unintelligible due to microphone failure).

DR. ZIEMER: In one case it's a -- an error --
MR. GRIFFON: Right.
DR. ZIEMER: -- per se. In the other case, it's a result of the process, yeah. So we -- we need some words --
DR. ANDERSON: We're not going to criticize the process, though. It was...
DR. ZIEMER: Yeah. Yeah.
MR. GRIFFON: Right.
DR. ZIEMER: Yeah. Okay.
MR. GRIFFON: Okay. So then are we moving -- moving on to those conclusions or -- you ready or --
DR. ZIEMER: Just one -- okay. Any other comments on this introductory part? Yes, Henry?
DR. ANDERSON: I would just --
DR. ZIEMER: Use the mike for the recorder.
DR. ANDERSON: I just had a question on, you know, kind of the paragraph before the conclusions.
DR. ZIEMER: Yeah, we're going to expand that.
DR. ANDERSON: Yeah, but the (reading) several conclusions are offered for consideration. I mean I'm not sure this is offered for

consideration. This is just our conclusions.
MR. GRIFFON: Yeah.
DR. ANDERSON: I mean what --
DR. ZIEMER: The Board reached the following conclusions.
DR. ANDERSON: Yeah, right.
MR. GRIFFON: Yeah, right.
DR. ANDERSON: Yeah. I mean you could say after considering the findings in aggregate da, da, da, da, da, da the Board agreed -- you know, something like that, a more...
MR. GRIFFON: All right.
DR. ZIEMER: Okay, let's go ahead with the conclusions.
MR. GRIFFON: Okay, the first one is the question that we -- we discussed a little bit yesterday, the format of the dose reconstruction final report and, you know, I think it's -- the -- the -- you know, it's also the question of the auditable trail within the -- the DR report, the fact that -- that all the dose input tables can be tied back to where they were actually -- where they actually came from, is -- is the example there.
DR. ZIEMER: Mark, I think we certainly were

all in agreement with this. I would wonder whether this would -- this is something we would ask the Board to take action on. I would question whether something like this would need to go to the Secretary, however, as a recommendation to the Secretary that these formats be changed. This is --

MR. GRIFFON: Well, it's more -- maybe format's a bad word. I think they should -- I think this definitely should -- not to mention that you've got a lot of DR reports that have already been issued in this format and that they -- you know, their reaction by -- by --

DR. ZIEMER: I'm sorry, I misunderstood. I thought you were talking about this report. You're talking about the individual dose --

MR. GRIFFON: Right, right, I'm sorry.

DR. ZIEMER: -- reconstruction reports that go to claimants.

MR. GRIFFON: I'm sorry. I'm sorry.

DR. ZIEMER: Okay, I'm back with you.

DR. DEHART: In fact what we're reporting here is what has been done.

DR. ZIEMER: Yes.

DR. DEHART: It's not --

DR. ZIEMER: Yes.
DR. DEHART: -- asking the Secretary --
DR. ZIEMER: Yes, I understand now, uh-huh.
MR. GRIFFON: Sorry. And also the reason for that one sentence being highlighted is I -- I mentioned this, and then I wasn't sure that this was actually true so I wanted to see if in fact -- I think this is a question for NIOSH or ORAU if these DR reports have been modified in any way.
DR. BEHLING: Well, I can --
MR. GRIFFON: Oh, okay.
DR. BEHLING: -- also make a comment on this because I've now received a second set of 18, and the format basically remains the same, but we are now being given additional information that makes the auditing process considerably less detailed and easier for us because we're given at this point a firm understanding of the data entries that you see on Attachment A that accompanies each of the DR report that says entries one through 25 are recorded dosimeter photon doses, so we don't have to go and identify what portions of the IREP input components are due to neutrons, to photons, to

the alpha internal, et cetera, et cetera. However, that has not -- I assume not been transmitted to the -- the claimant himself, so the -- the reading or your statement as it reads here, in part we have been given the benefit of an expanded explanation as to what the DR report contains, but I assume that that has not been transmitted to the claimants.

MR. GRIFFON: And -- and I'm a-- is anyone from --

DR. WADE: Well, Jim isn't here at the moment. Let's ask -- when he --

MR. GRIFFON: Dick --

DR. ZIEMER: Dick Toohey may be able to answer that, and -- and is the issue here -- this has to do with what the claimants understand the report is telling them and...

DR. TOOHEY: Yeah, the operative word is "may be able to answer" because I'm not absolutely sure, but I know we have been working with NIOSH on a formatting change on the report, and what it would primarily be doing is putting together an executive summary for the front part of the report in claimant-understandable language on what was done, how we got the

numbers, here are the numbers. And though, as you know, we don't make the compensability decision, there are some circumstances where, you know, it's pretty clear that --

DR. ZIEMER: Does this actually come from DOL? Is it a DOL letter that we're --

DR. TOOHEY: No.

DR. ZIEMER: -- talking about?

DR. TOOHEY: No, we're talking about when we -- the process is --

DR. ZIEMER: When you notify the claimant of the dose.

DR. TOOHEY: Yeah, we submit the draft DR report to OCAS and then when it's approved they send it to the claimant, along with the OCAS-1 form.

DR. ZIEMER: Right.

DR. TOOHEY: Then we do a closeout interview with the claimant, and then when all that's done the DR report is sent to DOL as a final for the adjudication process. I know we have been working -- my understanding is creating an executive summary up front without many other changes in the body of the DR report --

DR. ZIEMER: Jim Neton has returned, maybe --

DR. TOOHEY: -- but I'm not sure we implement that yet -- Jim?

DR. ZIEMER: Jim, we're talking about any modifications to the dose reconstruction report for the claimants that helps them to understand it easier, what has been done so far?

DR. NETON: That's in the works. I don't know what Dick has mentioned so far, but we're -- I think we're going to try to make a layman's summary, we -- what we call at NIOSH a one-pager, that kind of outlines what was done and, you know, fairly -- in layman's terms explains what was done, and then attach behind that a more detailed health physics report that would make it easier for folks like SC&A and others who are inclined to, you know, review the health physics data, it would be more clear to them what we've done. That's not finalized yet, but we're moving in that direction.

DR. ZIEMER: Okay, thank you.

DR. TOOHEY: That's good. We said the same thing without prior collaboration.

MR. GRIFFON: And no rehearsal, yeah, that's good.

DR. ZIEMER: Thank you.

MR. GRIFFON: And Paul, I think Roy maybe just captured it. Maybe we can refine that sentence to say this -- this enhanced DR report is under development by NIOSH -- is currently under development by NIOSH/ORAU.

DR. WADE: Uh-huh, that's fine.

MR. GRIFFON: That way we show that there's some action on the -- yeah.

DR. ZIEMER: Thank you.

DR. TOOHEY: Let me add one thing to that, if I may. I just recalled that the next 20, and maybe even the 20 after that, that get audited will probably not have been done with the new format.

DR. ZIEMER: Yes, understood. Okay, go ahead.

MR. GRIFFON: Then the next item -- Paul, should I move on to the next item?

DR. ZIEMER: Yes, I think so unless anyone has anything else on this first item.

MR. GRIFFON: Next item, internal quality control, and this was a -- I think Hans brought this point up yesterday in a summary fashion, and I tried in several of these items to reference back to (unintelligible due to microphone failure) -- the Board's list of

findings, and I'll call those findings. In this case when it says 8.x, that's one that I found in case number eight in the SC&A full report but it wasn't captured in my table yet so we've got to -- you know, I don't have it numbered, but it is in case eight and it's yet to be in the matrix.

But this -- this also -- by the way, and I'll also just ask Hans on the record here that I was looking for that one with the four thou-- that's kind of a quality control issue that -- that we saw that it didn't (unintelligible due to microphone failure) that, but the question that that would get by was a -- was a --

DR. BEHLING: There are numerous instances I believe where a person who has signed off -- and I always look at the signatures of the dose reconstruction report and there's usually two signatures that involve people who supposedly have looked at the dose reconstruction report and signed off on it and my understanding would be that these people not just signed their name to it, but actually scanned through the document and at least did a cursory review, quality assurance check to see if it looks

okay. And there are some instances where I would say that's quite difficult and I wouldn't expect the QA auditor to go through line item by line item, but for instance, if you look at the attachment that accompanies the input to IREP and you see, for instance, entries for recorded dose that are defined for a normal distribution and you see parameter two is blank, you realize there's something missing because that would suggest to you instantly that there is an uncertainty that has not been captured.

On the other hand, if it was a factor of two for a high estimate, that should have been entered as a constant. So you can instantly look at the input and say here is an entry level that says for a normal distribution 30 to 250 keV and there's a number here and that the parameter two is blank, that should instantly trigger somebody to say hey, wait a minute, if you -- if you doubled it and it's a maximized dose, it should have been entered as a constant. If it's a normal, there should have been an uncertainty, a sigma value. And so these kinds of things should be part of an

internal QA, and there are numerous instances where you don't have to go through lengthy QA checks but simply scan through it. For the guy who's really familiar with the -- the process, you can within -- within matter of minutes identify deficiencies by just looking at the IREP input.

And Mark had asked me this morning and I wasn't there to answer his question, but in the next 18 there is a classic example, and I have the case here --

DR. WADE: We just need to -- we need to move on. I mean I don't think we need to do this at this particular time.

DR. ZIEMER: But we understand the point.

DR. WADE: Right.

DR. ZIEMER: Thanks.

MR. GRIFFON: And then number three --

DR. DEHART: Could we discuss (unintelligible)?

MR. GRIFFON: Yeah.

DR. DEHART: For the purposes of the letter, it's saying that we are recommending. Shouldn't that be more defined?

DR. ZIEMER: Clarify what you mean.

DR. DEHART: We have recommended, we're not

recommending. The procedures are in place or moving forward or something. I mean that's -- this is just sort of hanging out there.

MR. GRIFFON: Oh, yeah.

DR. DEHART: And that isn't appropriate, I don't think, for a letter of this sort.

DR. ANDERSON: Yeah.

MR. GRIFFON: In other words we have -- we have to do this under a separate recommendation.

DR. DEHART: Yes.

MR. GRIFFON: Yeah, you're right. I didn't catch that. The Board has recommended that --

DR. ZIEMER: This is just information --

DR. ANDERSON: Yeah.

DR. ZIEMER: -- that we've rec-- this is what we've done to address that. We're not asking the Secretary to take specific action.

MR. GRIFFON: Right. Sorry, that's --

DR. ZIEMER: And it's my understanding that quality assurance procedures are sort of in flux anyway and progressing, is that -- that's correct in both cases, they're being developed as -- as we proceed. Thank you.

DR. DEHART: So I think we should -- that should be in a terminology that finalizes it.

MR. GRIFFON: It just -- it's changing it to has recommended, is that sufficient or are you --

DR. DEHART: I'll help you reword it.

MR. GRIFFON: Okay, that's fine.

DR. ZIEMER: Okay, let's go ahead.

MR. GRIFFON: Item three, procedures fragmented and difficult to interpret. That -- that was actually a summary term that was used several times in the SC&A report so I'm not completely wedded to that language, but it gets the point across. Again, cases are referenced -- where I have the Xs, I didn't have those numbered. And this -- now here's a question on the action, but I think we've sort of said that we'll -- we'll withhold recommendations at this point on most of these because we have a full procedures review being done under task three, and it's more appropriate to -- to tackle that at that point.

DR. ZIEMER: And until we have completed that I wonder if the title to the third item may need to be a little more generic. There may be -- fragmented is one thing and difficult is another, but there may be some other kinds of

issues that emerge. So is there a more generic title for that section? Procedures...

DR. DEHART: Procedure clarification and modification?

DR. ZIEMER: Something like that. Which would include these specific cases, but there may be other things that we're not aware of.

MR. GRIFFON: Or -- I don't know, can it be as simple as procedures -- procedures issues or procedures --

DR. ZIEMER: Yeah, procedural issues, sure. Okay. Any other input on that section for Mark?

(No responses)

DR. ZIEMER: Now let me insert at this point, because we haven't been definitive on exactly what these changes are, what -- after we get through this I'm going to call for a motion to accept this conceptually --

MR. GRIFFON: Right.

DR. ZIEMER: -- 'cause -- 'cause we're going to have a document that's the polished version of this, with the input that we've given here -- I don't want to do all the word-smithing here at the table today, if that's agreeable.

DR. ANDERSON: We'll just all pile it on Mark.
MR. GRIFFON: That's agreeable, that's --
DR. ZIEMER: Well, no, we may get a couple to volunteer to help with that, and I certainly want to be involved before the next meeting, also, so that we get -- maybe two or three of us can do that, but as long as we have the idea of what -- what modifications we want to make, then we can do some additional polishing at that time to get these concerns in place and get a revision of this ready for the Board that we can at least conceptually approve.
DR. DEHART: A question that I would have is is this to be accompanied by the full report? Because we're constantly referring to the cases.
DR. ZIEMER: Well, in essence, that -- yeah, I don't know that the report -- this is the wrap-up -- I mean the report stands on its own. This will have the -- its appendices as attachments.
MR. GRIFFON: Attachments.
DR. ZIEMER: The report wouldn't necessarily be attached to this that went to the Secretary, I don't believe.

DR. DEHART: We're referring -- I'm just --
DR. ZIEMER: Oh, here we're referring -- and that's -- that's a note for the Board.
DR. DEHART: You don't -- do you intend that those references go into the report? Because --
MR. GRIFFON: Oh, those references are within the -- and maybe I should be clear on that, that those finding numbers are in the matrix, which is an attachment, so they'll be able to see a summary. They won't have this --
DR. ZIEMER: They won't have --
DR. DEHART: Okay, it won't be part of the attachment --
MR. GRIFFON: They'll have that summary of -- of -- of describing that --
DR. DEHART: Yeah.
DR. ZIEMER: Okay, let's proceed. CATI is the next item, item four.
(Pause)
MR. GRIFFON: I'm just capturing that idea. The CATI -- again, it's constructed basically the same with examples where it was identified in the cases that we reviewed. And I guess the second part of that paragraph there basically

explains that while this -- it is accepted by SC&A, and I believe the Board, that the -- in these ca-- in these particular cases the identified information within the report likely would not have affected any -- any dose estimate in a significant manner because they mostly involved overestimates using high five or the 28 radionuclides in some cases anyway, we just wanted to -- to identify that this information could in fact impact future cases. So it's not really -- I guess it's a -- a -- Paul, you had the word for it yesterday -- a, you know, just a indication that this -- this information shouldn't be forgotten about. There was a lot of -- and further than that, the idea --

DR. ZIEMER: This was what we talked about as the watch list --

MR. GRIFFON: Yeah.

DR. ZIEMER: -- and -- and --

MR. GRIFFON: But it is a little further than that in that the idea has to come through -- because it raises this question of credibility. If the individuals get back their case reports and they say well, geez, they didn't even -- I

gave them all those five incidents I was involved in and nobody even talked about those; you know, what'd they do with those? I think that's part of -- it also ties back into the DR report modification, just the explanation that, you know, we considered the information provided in the CATI interview. While we understand that you were involved in several incidents, we have taken a very, you know, overestimating approach with the internal dose based on, you know, the highest internal doses ever received on -- highest intakes ever received on the site or some--

DR. ANDERSON: There needs to be an acknowledge--

MR. GRIFFON: Something to ack-- some-- yeah.

DR. ANDERSON: -- acknowledgement that, you know, it was heard and recorded and --

MR. GRIFFON: And considered.

DR. ANDERSON: -- considered.

MR. GRIFFON: And considered, you know, and that we didn't have to go back and try to recalculate those 'cause we knew we were overestimating with this other approach. But at least that way there -- there's -- it -- I

think it lends credibility to the product in the eyes of the public that, you know, they did follow up on what I asked them to look into.

DR. ZIEMER: Okay. Then let me jump in at this point then with -- with -- I'll call it an organizational issue on this now. The way this is currently set up, and this -- this -- take this to be a friendly suggestion. I think what we have listed here as conclusions and recommendations are what we called yesterday items for improvement, which were separate from the main conclusions which now get hidden in the introduction, which has to do with -- with the ac-- these findings, the findings.

MR. GRIFFON: Right. Well, that was sort of intentional, though, 'cause I don't think those really are the main conclusions out of all we've done so far, so -- you know, not that I'm not considering those, but I think --

DR. ZIEMER: Well --

MR. GRIFFON: -- to say that 42 out of 46 of these cases had low level findings -- you know, what's that mean based on what we were reviewing?

DR. ZIEMER: Well, it only has meaning for

these 20 cases at this point, but yesterday we talked about asking the question were there -- have we observed any cases that would impact compensability.

MR. GRIFFON: That -- this is what I was concerned about going, right.

DR. ZIEMER: Well --

DR. DEHART: But that...

DR. ZIEMER: -- might -- can -- to the extent that these 20 cases tell us anything one way or the other about that, it seems to me that's still an important point, even though it's a small sampling at this point. It seems to me we still have to identify that -- and we have -- and there's a level of importance to that, I think to the program: Did you find any cases in this first set that -- where compensability would likely have been changed.

Then we talked about areas of improvement, which are these things you've just gone through here, these conclusions. And then we also talked about what we sort of named the watch list, which was another category of things that we weren't necessarily making a definitive recommendation on, but we were calling

attention to things that we need to pay attention to down the road sort of thing and -- which is another -- I'm thinking about another sort of heading for the things starting with --

MR. GRIFFON: I still think -- I still think we should stick with more of the sufficient for purposes of determining the probability of causation.

DR. ZIEMER: That's fine.

MR. GRIFFON: I really was reluctant to put in there that, you know, none of these would likely have overturned compen-- you know.

DR. ZIEMER: All right. Yeah, yeah. I'm -- I'm okay with those words. I was just trying to see if we shouldn't, when we have our -- our conclusions, have some conclusions about those -- that issue, sufficient for compen-- for the finding, and then the areas that need improvement and then these other things, sort of a three-part -- I mean you have it all here. I mean it's an organizational issue. I'm just raising it as -- I don't -- I want to be sure -- and Mark, I think your concern is that we put too much weight on the prior question with only 20 samples.

MR. GRIFFON: Right.
DR. ZIEMER: So is there a way we can --
MR. GRIFFON: Especially -- here -- see, here's --
DR. ZIEMER: My point is that this point here in that paragraph is, in essence, part of our conclusions, the conclusions of our auditor, that in essence we are then accepting.
DR. ANDERSON: But --
MR. GRIFFON: So maybe putting --
DR. ANDERSON: But our --
MR. GRIFFON: -- the last part as just recommendations -- I mean I put that stuff up front, but I don't think from that we can -- can -- we necessarily have any recommendations, yeah.
DR. ZIEMER: And maybe that's the way to do it. Maybe it's --
MR. GRIFFON: So that --
DR. ZIEMER: Conclusions, recommendations and then ongoing concerns or something.
DR. WADE: Yeah, I agree with that -- makes sense.
DR. ZIEMER: Are you comfortable with that approach?

MR. GRIFFON: Sort of. I'm -- I'll tell you why I'm a little nervous, quite frankly. It's that we're starting to write an executive summary with conclusions on -- on this 20-case audit where there's a lot of details that I think are being overlooked within this audit report. You know, we're talking from this matrix, this summary matrix. When I go through all these findings, my -- last night when I compiled this thing, you know, I asked myself the questions of what happened to the Savannah River finding, what happened to -- you know, and not only the ICRP-30 versus 68 issue, the -- you know, tritium versus organically-bound tritium issue. Defer it to the site profile discussion, I agree, but not captured in that summary list anymore. I think there might be explanations to a lot of those, but I think -- you know, I'm just -- I'm just a little nervous about, you know, those details here. And also we don't have a wrap-up of the -- of the five AW-- I guess we can -- will include that now, of the five AWEs, 'cause there's different types of items, but -- so I guess -- something to that effect I think I'm comfortable with. I

just think we -- we -- we as a subcommittee have to be comfortable with the details that support this front-end matrix.

DR. WADE: Let me offer sort of an observation, and I think all of the ideas that have been put out are good. I think Paul comes to a place where he said let's have some conclusions and some recommendations. Then Mark, you raise I think the excellent point that we don't want the reader to be confused that this is anything but an early observation of one part of a multi-tasked review.

MR. GRIFFON: Right.

DR. WADE: I think we need to point that out. I mean I think the Board reserves the right in summary, be it on dose reconstruction or the overall audit of the NIOSH activity, to come back and re-conclude, and all we're doing is offering an observation at this early junction and I think it's important that we put those limiters in there.

DR. DEHART: Would the term "concern" be appropriate here?

DR. ZIEMER: Right, I think it would for that last category, ongoing concerns or something.

And in fact, you know, one might argue even on these recommendations that they still are based on a very limited number of observations anyway, so one way or the other we have some recommendations that are based on a limited sample. But I think you've set the framework very well. It's clear that this is just the first 20, that the intent is to sample this two and a half percent of whatever the number is and so on, so I think in the proper framework that could be fine. Well --

MR. GRIFFON: In principle right now I'll try to -- we'll try to figure out --

DR. ZIEMER: Yeah.

MR. GRIFFON: -- how to wordsmith that.

DR. ZIEMER: I was trying to separate out what in essence are -- maybe conclusions isn't the right word, but certainly the findings of our auditor include the -- the potential, or lack thereof, of --

MR. GRIFFON: What if I -- what if I had a section that just introduced this as the summary of findings -- 'cause that's what we're discussing is the summary of findings.

DR. ZIEMER: Sure, that would be fine, yeah.

MR. GRIFFON: And then ongoing -- ongoing concerns, for that last -- for those last --
DR. ZIEMER: Yeah, summary of findings and then recommendations for improvement and ongoing concerns, something like that. It's just an organizational issue that --
MR. GRIFFON: Right.
DR. ZIEMER: -- helps sort out the different things that we've identified.
MR. GRIFFON: That's fine. I agree.
DR. ZIEMER: So the part, starting I guess with the CATI part, is the -- our so-called watch list, the ongoing concern issue. Right?
MR. GRIFFON: Oh, so these are -- one, two and three you would consider --
DR. ZIEMER: Well, yesterday that's -- we had identified the items for improvement. We had the report to claimant, the audit trail -- did you mention the audit trail?
MR. GRIFFON: It comes up in the DR report.
DR. ZIEMER: Yeah, and then the concerns about procedures and quality assurance. And then we had the --
MR. GRIFFON: Okay.
DR. ZIEMER: -- validation/verification and so

on and the other (unintelligible).

MR. GRIFFON: Okay. I wasn't trying to break -- okay. We can break those out if we want to. So recommendations, then the other three will be ongoing concerns.

DR. ZIEMER: Anything else on the CATI part? Suggestions there?

(No responses)

MR. GRIFFON: The -- if everybody's ready, the second item there then, the validation and verification question, and I tried to define what I meant -- I think this came -- came up in several cases that we looked at. A lot -- many of them were the Savannah River high five. That's mainly 'cause that's just a very easy one to explain what we mean by validation. There was -- one of these findings, deficiencies, whatever -- one of these findings that I list here was a question where there was only annual -- some annual dosimetry summary data, at least for one or two years of the entire body of -- of external data available for that individual, so a minor point on that particular case, but a question in ongoing --

DR. ZIEMER: (Unintelligible)

MR. GRIFFON: -- (unintelligible), yeah.
DR. ZIEMER: Okay, any other comments on that section? And again, these are just items just to give a heads-up. We have to look at these in the subsequent cases to see what -- the picture emerges.
DR. ANDERSON: Yeah, I think the issue is one -- if this is the systematic approach, we're concerned. And you know, we haven't seen anything serious, but it has -- has the potential here to --
DR. DEHART: I think when we're discussing this --
DR. ANDERSON: -- to be --
DR. DEHART: -- we were interested in assuring that there was sampling --
DR. ANDERSON: Yeah.
DR. DEHART: -- where it was possible to do calculations --
DR. ANDERSON: Yeah.
DR. DEHART: -- and make sure that you had validation.
DR. ANDERSON: Yeah.
MR. GRIFFON: Yeah, so put that on the radar, that --

DR. ANDERSON: Yeah.

MR. GRIFFON: -- they -- they --

DR. ANDERSON: I think that's the --

MR. GRIFFON: And I'm sure they are considering the validation and verification.

DR. ANDERSON: Yeah.

MR. GRIFFON: Right. And the last item is consistency of cases and/or concern with efficiency approach. I'm not sure about that title, but the idea here was -- and this is a discussion that we had at the McLean, Virginia meeting. Some of these question -- or this question came up. You know, certainly the idea of -- you know, I can think of the medical X-ray situation where in some cases overestimates were used which assigned a -- quite a higher dose than you would if you had correctly (unintelligible due to microphone failure) not affecting the -- necessarily the dose significantly, so really no major problem as far as the case was concerned. Where we started thinking -- theoretically, anyway -- that this might come -- lead to a problem is if you have similarly-located workers. I can picture this sort of thing happening at K-25,

having been down there a lot. Retirees getting together for breakfast and comparing notes, and you might say oh, they'd never look at these things together, but they -- they do. And they'd say well, how the heck did you get 40 rem when I only got, you know. 6.5 rem and I was there in the hottest places -- you know. So and it -- and it can be explained because one person had a certain type of cancer and they used the efficiency method and, you know, the other person was a different situation and they used the more enhanced approach. But to these two sitting in Oak Ridge, Tennessee, it may not be a -- you know, and that -- that -- just that concern out there that is this going to create a credibility problem down the line.

DR. ZIEMER: And part of this has to do with how that dose is explained, also, to the person. We've actually had some of that in our public meetings where someone has gotten up and said so-and-so and I both have exactly the same dose, down to the decimal point, and they're astounded by this, and they say how can that possibly be. And I mean we've heard that a time or two in the public meetings, which means

they don't understand that there's a reason why.

MR. GRIFFON: Well, and also -- it also makes them won-- you know, they -- they --

DR. DEHART: Question.

MR. GRIFFON: -- they question --

DR. ZIEMER: Right, 'cause they know very --

MR. GRIFFON: I thought -- I thought this was an individual dose assessment.

DR. ZIEMER: Right, right.

MR. GRIFFON: Why aren't you looking at mine.

DR. ZIEMER: Yeah. So somehow that needs to be addressed more.

MR. GRIFFON: Right, and just an ongoing concern, no --

DR. ZIEMER: Right.

MR. GRIFFON: -- recommendation here. Right.

DR. ZIEMER: Okay. Are you ready to make a motion to recommend this, in concept, to the Board?

MR. GRIFFON: Someone else (unintelligible).

DR. ZIEMER: Yeah. Yeah, Mike is so moving?

MR. GIBSON: Yeah.

DR. ZIEMER: And a second?

DR. ANDERSON: Second.

DR. ZIEMER: Okay. Any further discussion? And this -- this would be accompanied by hopefully some revised -- the -- revised appendices and so on. We may have some additional polishing to do, but at least will be at that point for the Board to present that. Okay, all in favor say aye?

(Affirmative responses)

DR. ZIEMER: And any opposed?

(No responses)

DR. ZIEMER: And any abstentions?

(No responses)

DR. ZIEMER: The motion carries. Thank you. Thank you, Mark and Roy, for your work.

DR. WADE: Thank you.

DR. DEHART: I think there's going to be considerably more development of this once we have the summary for all 20 cases, since we were really talking 15 here.

DR. ZIEMER: Yes. Dick Toohey -- address us a moment.

DR. TOOHEY: Thank you. I'd just like to make a comment for your consideration. You know, it doesn't specifically say in this report what we know and that we did in fact in these 20 cases

get the compensation decision correct. And as Dr. Ward (sic) mentioned yesterday, it's probably something -- and you did go into a little bit on discussion -- that should be one of the things specifically mentioned up front. And I'm just concerned that you're raising these other issues because of concern that could tend to undermine the credibility of the program. And if we don't explicitly say that at least this initial audit of 20 cases did find that we were getting the compensation decision correct -- which is really the ultimate, perhaps the only, purpose of doing the dose reconstructions -- that, in and of itself, would undermine the credibility of the program. Thank you.

DR. ZIEMER: Yeah, actually this is one -- the point I was making, Richard, was to actually have at the front end of the conclusions and break that out. It probably wouldn't state that we had the compensation decision correct, but that the results are unlikely to have affected compensation, or something to that effect (unintelligible) --

MR. GRIFFON: Sufficient for purposes of

determining (unintelligible) --

DR. ZIEMER: I think that that will show up more clearly in the revisions so that that's right up front. After the intro that will be right at the front end and these other things will be listed as items for improvement, whereas the others will be up front as the front-end conclusions based on the work of the auditor. And then the other will be our ongoing issues -- concerns. Okay. Thank you very much.

BETHLEHEM STEEL SITE PROFILE

The next item -- main item for today, really -- is the Bethlehem Steel site profile and how to close on that. Now let us identify what we have. We have the -- we have the -- the Bethlehem Steel initial site profile. We have the SC&A review of the site profile, which was dated October, 2004. We have NIOSH comments on the review, from December. And let's see --

DR. WADE: I also have, Paul, the motion -- a copy of the motion that the Board took at the last meeting concerning Bethlehem that I could give out if that would be of --

DR. ZIEMER: That would be -- that would be

helpful. And then also -- I just want to ask if the Board members received -- I've received some other materials, including some from Ed Walker, and I'm -- okay, the Ed Walker materials I'm going to distribute here.

(Pause)

DR. ZIEMER: Now does every-- the copies of the Bethlehem Steel action --

DR. WADE: Did you --

DR. ZIEMER: -- does everybody have a copy of that?

(Pause)

DR. ZIEMER: Now who can give us an update on where we stand on the resolution of technical issues? Can either Jim or --

DR. WADE: Let's start with Jim and then --

DR. ZIEMER: Jim and then -- and then John, perhaps.

DR. NETON: As you recall, NIOSH had two sets of reviews of the -- of SC&A's review. In the December meeting we provided some preliminary recom-- comments. The Board instructed NIOSH to go back and work with SC&A to resolve any -- any issues that we might have. We did that, and we came back at the February Board meeting

with what I'll call a White Paper describing our approach to resolving those issues. We heard the Board's motion and -- that carried, and are working now toward resolving those issues in accordance with the motion that was passed.

We're revising the site profile. We're actively working on it and we're moving along the lines of the Board's recommendations. We have one outstanding issue we know that we owe the Board, which is characterization of oro-nasal breathing at steel mills and the respiratory rate during heavy work at those mills. Other than that, though, I believe that the recommendations that we made and put forth at the February meeting were essentially accepted and we're moving towards that end as outlined in that White Paper to revise the profile as appropriate.

MR. GRIFFON: Have we -- do we have copies of those -- those White Paper that you...

DR. NETON: That was handed out at the Board meeting in February. I didn't bring copies with me. I may have a copy and we can get copies made, but I could summarize where we're

heading with that, if you'd like to --

MR. GRIFFON: Yeah, (unintelligible) --

DR. WADE: Please.

MR. GRIFFON: -- sorry. Didn't prepare as much for (unintelligible).

DR. NETON: We have a number -- that White Paper translated into twelve Action Items on our part that we're using to track our changes. The first issue was the air monitoring, purpose and applicability. We committed to explaining in more detail how the air monitoring program at Bethlehem Steel and Simonds Saw and Steel were representative of the workers' environment, at least to the extent -- using a maximizing approach for assigning doses, and we've done a lot of work in that area. We've committed to re-evaluating the air concentration data. We're going to scrap the triangular distribution and, as SC&A suggested, use a lognormal distribution to characterize the workers' environment -- internal exposure environment. And on top of that we will use the 95th percentile of those generated lognormal distributions and apply it to all workers.

In the original document we used the triangular distribution and sampled it. Now we're going to generate a lognormal and assume that all workers breathed the 95th percentile of the air sample concentrations.

There was an issue related to the low energy bounding matrix that was in the original profile. Since that was never used to make any compensation decisions -- or to assign probability of causations by Labor, we're removing that table from the document.

The fourth issue was the oro-nasal breathing and breathing rate, and I mentioned that we're working forward on that.

The fifth issue was the ingestion model to tie in with the residual contamination model. We're working on that.

These sort of go together. SC&A recommended that -- or believed that residual -- residual contamination in between rollings was an issue, and we did not evaluate that in our original profile, and we're going to do that. So we're going to include both ingestion and inhalation from resuspension in between rollings and after the cessation of the last rolling into the dose

reconstructions.
The particle deposition parameters, I think SC&A at that -- SC&A agreed at the meeting that the five micron particle size was likely appropriate for that exposure environment, so we're working on that -- we're not working on that; they've accepted that.
There were some issues raised in the SC&A comment that we did not really address site expert input, and we're going to great lengths to try to explain how the site worker input was evaluated and incorporate -- and how the models that we developed are sufficiently claimant-favorable to over-arch any of those concerns.
Medical X-ray data, there was some concern that we didn't evaluate photofluorography, and we're actively searching AWEs for the use of photofluorography. And once we finalize that, if it looks like that was a X-ray exposure modality back then, we'll include that in the profile.
And I think that -- that covers the main -- the main points.
DR. ZIEMER: Jim, what's the timetable on this? Are we likely to have something at next month's

Board meeting or... I mean you have a lot of things you're working on there, we understand that, but I just -- realistic.

DR. NETON: I'm reluctant to commit to having something --

DR. ZIEMER: Well, I'm not asking you to commit, I'm just -- really --

DR. NETON: There is a --

DR. ZIEMER: If you said --

DR. NETON: It's possible --

DR. ZIEMER: -- you were within a week of finishing or --

DR. NETON: No.

DR. ZIEMER: No. Okay.

DR. NETON: This is a substantial revision. As you recall, the original profile was I think something like 14 pages long. I expect this document to be substantially larger. I mean there's a lot of references we're tracking down. We've made excellent progress, but it does take time to do it right.

DR. ZIEMER: Yeah.

MR. GRIFFON: I -- oh.

DR. ZIEMER: Yeah, go ahead, Mark.

MR. GRIFFON: I just had a question. As we're

looking at the materials that were handed out from Ed Walker whether -- I mean he's brought this up several times at public comment and stuff about the additional rollings. Have you researched that any further? Is there any headway on that?

DR. NETON: The lead agency, of course, in re-evaluating these additional rollings is the Department of Labor. While we work closely with the Department of Labor, our main task -- as we view it -- is to research the exposure conditions. As we identify additional exposures and documents, we pass those on to the Department of Labor. But we are not actively searching for additional rollings. We're just working with --

MR. GRIFFON: So D-- DOL is responsible for finding the --

DR. NETON: The covered exposure period.

MR. GRIFFON: The covered exposure period, right. And to the extent that you've found documentation on other process...

DR. NETON: Oh, we pass everything along to Department of Labor. I just don't --

MR. GRIFFON: So you're not actively looking

for that is what you're saying.

DR. NETON: We're actively looking for exposure documents, and if they show that exposure has occurred in different years, we would pass those on directly to Department of Labor. But we are not actively looking to expand the covered exposure period. I mean we will collaborate with the Department of Labor.

DR. ZIEMER: Is it fair to say that Ed's material has, either directly or through you, gone to Labor? I assume that they have the information, do they not? Ed understands it's -- it's --

DR. NETON: Yeah, the additional information that we've found has been found -- discovered at Hanford and Savannah River. I passed those on to Department of Labor, that's correct.

DR. ZIEMER: I'm asking about Ed's own assertions, has he provided those -- do we know --

DR. NETON: Oh, the document that was sent to you?

DR. ZIEMER: Yeah.

DR. NETON: I don't -- I don't know that that was -- has been transmitted to the Department

of Labor. You're talking about the letter that the Board received --

DR. ZIEMER: Yeah, does Ed himself provide that to Labor or --

DR. NETON: I don't know.

DR. ZIEMER: -- is he relying on us to do that, or do you know?

DR. NETON: I really don't know the answer to that.

DR. ZIEMER: I don't know, either.

DR. WADE: I could call Ed and ask him and --

DR. NETON: Yeah, I mean we'd certainly --

DR. WADE: -- at his request would transmit the material to the Department of Labor.

DR. NETON: Yeah.

DR. ZIEMER: It seems to me that, you know, if that's all it takes and we can say, you know, it's their baby but we'll be glad to help you send it on to them or something.

MR. GRIFFON: I'm not -- I must admit I haven't reviewed his handout in depth -- or at all, I should say --

DR. ZIEMER: No.

MR. GRIFFON: -- but --

DR. ZIEMER: Most of his points have been --

he's raised them before.

MR. GRIFFON: Well, the question I have is are all the additional rollings he's referencing outside the time period currently defined or are there some that are within the time period?

DR. NETON: I don't know that any of those are outside the covered time period right now.

MR. GRIFFON: Okay. So he's talking about potentially just -- just more rollings.

DR. NETON: They weren't even really rollings. In some cases Mallinckrodt would send the billets to Bethlehem Steel for heat treatment in the salt bath, and that would be it and then they'd be shipped on. Same thing with Savannah River. So it -- I don't know that we've uncovered any additional rollings. But there was additional evidence of material being transported through Bethlehem Steel, but -- but not necessarily rollings.

MR. GRIFFON: I guess from my standpoint it's just another -- you know, another --

DR. ZIEMER: Well, what impact would that --

MR. GRIFFON: -- point --

DR. ZIEMER: -- have (unintelligible) --

MR. GRIFFON: Let's make sure we're consi-- I

mean that --

DR. NETON: Oh, yeah --

MR. GRIFFON: -- NIOSH considers this to the extent that it would impact --

DR. NETON: Oh, exactly. The team that's working on advising the site profile has Mr. Walker's transmittal and we're addressing that.

DR. ZIEMER: Yes, Richard Toohey.

DR. TOOHEY: Let me add something to that Jim doesn't -- I haven't told Jim about 'cause I just found out Wednesday. On a data capture trip at Hanford we did find some Bethlehem Steel records out there and went through them and did not change the covered period. There was nothing outside the '50 to '54 time frame.

MR. GRIFFON: All right, but (unintelligible) you followed up on the (unintelligible) question is yes.

DR. TOOHEY: We weren't specifically looking for Bethlehem Steel out there, but we found it anyway.

DR. ZIEMER: Thank you.

DR. NETON: I would just like to remind the Board -- I brought this up at the last meeting -- but NIOSH was responsible for increasing the

covered exposure period and extending it to '52 because we found rollings, and we notified the Departments of Labor and Energy at that time that hey, you know, it looks like people were being exposed in '52, and so, you know, we do collaborate as best we can.

DR. ZIEMER: Very good.

DR. WADE: Could I just discuss this issue just briefly, not to add confusion to it but hopefully to bring it to closure. First as a data point, I was contacted by Senator Schumer's office and the Senator asked me to make sure that the Board understood that this issue of number of rollings and information on rollings was of great interest to the Senator's office. And I said I would make that comment, and I would also make sure that Ed's materials were given out.

You'll notice from the motion that the Board took at its last meeting that the Board has not formally asked NIOSH to do anything with regard to this issue. I think the discussion we've just had, if that satisfies the subcommittee, then that's fine. I just want to be sure that we're clear in what our expectations are and

what NIOSH will do. And I think, given the level of interest expressed by the Senator and others, I think it's important that we're clear on that.

DR. ZIEMER: Well, I think the -- the confirmation that Labor has the information is important and --

DR. WADE: Okay, then --

DR. ZIEMER: -- that -- it -- I'm not sure what we can do beyond that. NIOSH has taken into consideration the additional activities, and I'm -- I guess we don't know for sure if this document suggests there are any outside that period, but if -- if there are, we need to make sure Labor has the information.

MR. GRIFFON: Yeah, I guess -- I don't know if -- if we need to make a formal recommendation or -- or a motion for this, but you know, I think that if NIO-- and that discussion sort of suggests that they have, but if NIOSH has considered the additional information provided regarding rollings -- where applicable, I guess, you know, given the question of the coverage period -- in the development of the site profile, or in the revision of their site

profile, I think we just want assurance of that.

DR. WADE: I mean I might suggest that possibly NIOSH could write to the Board and let the Board know of its work in this area and just create then a record, and I think that would be sufficient -- if we could ask --

DR. ZIEMER: (Off microphone) (Unintelligible) officially report (unintelligible).

DR. ANDERSON: Yeah, I think we -- if we have a document, rather than just minutes, I think that would be very helpful.

DR. WADE: I think it would be, too.

DR. ANDERSON: I don't know if we need to have a -- we can just request that and maybe at the next meeting you could provide us with a, you know, kind of written documentary of what's been done and how it's being used.

DR. WADE: Okay, I'll carry that request to NIOSH.

DR. ZIEMER: Thank you. Now one of the -- you notice on the agenda -- for Bethlehem Steel the agenda item says how to close. Now closure on Bethlehem Steel I think would require us to have a final -- or not necessarily -- though

site profiles are never final, but we -- it seems to me we need this next revision that addresses the -- or resolves these issues. So is it fair to say that we would have to defer final action till we receive the revised site profile?

DR. DEHART: Absolutely, I don't know how we can move otherwise.

MR. GRIFFON: And then I guess the -- the next question beyond that is do we need -- here's this question of findings resolution. Everything that Jim stated sounds great, but we go back to that -- you know, the devil's in the details. How -- how was this applied and does SCA -- and I think they're working together, so it shouldn't be -- maybe it's just a -- but a final review by (unintelligible) --

DR. ZIEMER: Right, and our final report can consist of a similar tracking thing, what the issues were, how they were resolved, and then a final wrap-up type of document.

MR. GRIFFON: Right.

DR. ZIEMER: Which would come after we have this final revision.

DR. WADE: Right. I mean could we ask John

Mauro to come and just tell us, from your perspective, where things are and how they're proceeding, John? We'd...

DR. MAURO: The process we've developed -- I referred to the expanded review process and this is what we're talking about. The way in which it works is -- a perfect example would be what's going on right now with Mallinckrodt. We just received Rev. 1 of Mallinckrodt, and at the direction of Dr. Ziemer we have initiated our expanded review cycle. As I had ind-- as we spoke about before, this is a part of the process that's triggered based on direction given by the Board. That direction has been triggered by Dr. Ziemer and we're moving forward with Mallinckrodt review, which will be a one-month review. As everyone knows, we have set aside a budget just for that purpose in our most recent modification to our task one work. Now to go on to Bethlehem Steel, we have not initiated any expanded review on Bethlehem Steel. Our expectation would be that when we receive the next revision of the Bethlehem Steel site profile, it would be our expectation that at that time the Board would make a

judgment whether they would like SC&A to proceed with a review and give an -- authorize us to move forward. So as it stands right now, we have not billed any time or have taken any actions regarding the information that has been coming across our desk. I did sit in on the -- and we are certainly aware of these developments. But as -- we have not engaged the expanded review cycle. We felt it's best to conserve those resources until we see the revised site profile.

DR. ZIEMER: Yeah. And a good part of this revision is based on the interactions already occurring between the two, so it's basically responsive to what you have already identified. There may be some new information that the Board would want evaluated -- for example, if there were something in these Hanford records that would change things, then that might be a different story. But otherwise it's a little hard for me to see why we would ask SC&A to review what they've already --

MR. GRIFFON: Well, I mean the main reason is just the follow-through of -- you know, if we can have these broad discussions on -- you

know, they now are replacing triangular distribution with a lognormal 95th percentile for all cases sounds -- sounds wonderful. I think what we need SCA maybe to look at is well, what data was used for the lognormal distribution, is it consi-- you know, are they comfortable with the way it was handled and not in the (unintelligible) sense but in the more specific sense of the data et cetera. There were some sub-issues in those findings, and if -- and I think my -- my -- since there's been so much dialogue along the way, my understanding is that it'll be a fairly quick review. It won't be as extensive as -- as reviewing like a Mallinckrodt where there was a much more expansive revision. But -- and I would also say that -- you know, I think the -- these are living documents, so I don't know that we would want to -- you know, you have to stop somewhere, so -- but I think the findings that they identified, to carry them through and make sure that they -- that they, and by an extension that we are comfortable --

DR. ZIEMER: Right, it would basically say okay, at this point, based on what we've seen

and what's occurred, we now agree that this is okay, whatever words we end up using. But we would not decide on the next -- another step until we have the document in hand, I assume.

MR. GRIFFON: Right. And I think we -- we would trigger that -- as John suggested, maybe we would trigger that at our next full Board meeting --

DR. ZIEMER: Uh-huh.

MR. GRIFFON: -- you know, when we -- if we get Rev. 1 by that time or if it's coming down the pike in a week or so.

DR. ZIEMER: Well, I think Jim is suggesting perhaps it wouldn't be ready by the next Board meeting, but --

DR. MAURO: Yeah, the -- the -- two points that I'd like to make is, one, of the various strategies that Jim has just outlined, there was really only one where there is clear consensus among the SC&A team, that yes, we agree with the five micron AMAD. The other items we are -- we would prefer to reserve judgment until we see them within the context of the overall revised TBD. That will take some -- some work.

The other thing -- point that I'd like to make is that bear in mind that we have reviewed a number of Bethlehem Steel cases that are before you. In our first set of 20 I think there were three, and in the next set of 18 I believe there's one. Those reviews are in place. It would probably be appropriate when the new site profile comes through to see if there's anything in the revised site profile that may bear on our findings regarding those particular cases. I couldn't really say off-hand one way or the other whether it'd have any impli-- what type of implications it would have. So we are in an unfortunately somewhat of an iterative process whereby -- you know, we have our reports, the 20 cases, but then a revised site profile comes in and it's probably prudent to -- to revisit those quickly to make sure there's nothing about the new information that possibly could have affected the -- the...

DR. ZIEMER: Thank you, that's a good point. I think the burden's going to be on NIOSH to determine whether or not a revised site profile impacts on past cases. I'm not sure we're going to be asking the contractor to go back

and revisit previous findings. I believe this would be correct, but NIOSH would basically -- automatically would -- Jim, if you revised a site profile, you ask the question does this impact on previous cases, and the burden is on them to do that. Yeah.

DR. MAURO: That's fine.

DR. ZIEMER: Hans?

DR. BEHLING: Just a comment because of the earlier concern about completing the first 20, which involved the five AWEs, three of which were Bethlehem Steel, and Mark had requested and I think the Board approved that we include those in our checklist in our review. And my question is do we do this in the absence of closure in (unintelligible) like the Bethlehem Steel?

DR. ZIEMER: I think you have to do it based on what you have available at the time.

DR. BEHLING: Okay.

DR. ZIEMER: That's all you can do. And then if the site profile changes, then NIOSH has to go back and say well, what's the impact on that on this previous set.

DR. WADE: Paul, could I just --

DR. ZIEMER: That's -- that's old -- that's beyond just the ones that were audited. It's all the previous cases.

DR. WADE: Paul, I would like to talk a little bit about timing, and I hate to always do that, but I do think we need to be steering these things towards closure. And so based upon what I've heard to this point, we will not expect to see -- understandably -- a revised site profile at our April Board meeting. So that's a statement of fact, unless the Board wishes to instruct otherwise.

So then we're looking at a July Board meeting, let's say tentatively. You could look at two scenarios. One is at the July Board meeting the Board could see the NIOSH revised site profile, and at that July meeting make a decision as to whether or not it wanted SC&A to look at the materials, which would likely take us then to the September Board meeting -- or October Board meeting. Or it's possible, if the Board was to decide in April that what it wanted when the NIOSH revised site profile was complete we would send it to SC&A and trigger a review, then we might be able to come to

closure in July. And I think this subcommittee should think about that and then the Board should decide that.

DR. ZIEMER: And this is a item I think the full Board could decide at this telephone conference. To me it would make sense to have it automatically trigger a -- some kind of a review by SC&A to affirm that it was responsive to what they thought they were asking for. And that way we're not sitting marking time for a month or two waiting for the next Board meeting.

DR. WADE: Okay. So we will put on the agenda for our call then a full Board discussion of the timing of the Bethlehem next iteration. But Jim, this then brings pressure to you in that if we want to come to the July meeting with the revised site profile and the SC&A comments, that means that you would be in a position of having to deliver the revised site profile to SC&A in a May/June kind of time frame -- May time frame.

DR. ZIEMER: But at this point we still wouldn't know how long it would take SCA and what else would be on the table, so that would

still be speculative regardless of --

DR. WADE: Right, but I'd like --

DR. NETON: I think we can accomplish that May time frame, but what I'd like to ask is, am I correct in assuming that we could engage in the -- sort of the six-step iterative process again? I mean so that if SC&A receives it, they have some comments and we could engage in some dialogue in somewhat real time, as long as there's a Board member present and it's transcribed.

DR. ZIEMER: Yes.

DR. NETON: That way it'll expedite things tremendously.

DR. ZIEMER: Right.

DR. NETON: I mean there -- I anticipate that it wouldn't -- there's not going to be perfect agreement.

DR. ZIEMER: We can continue to do that, yes.

MR. GRIFFON: This will trigger that expanded review process --

DR. NETON: Exactly, so then by the time the next Board meeting, we may be able to have all those issues worked out and a consensus opinion between the two --

DR. WADE: Now let's ask John to react to -- now we're talking May, June, July if -- if you were to get the revised site profile the end of May, would you be in a position to turn it around in a month?

DR. MAURO: Two weeks.

DR. WADE: Two weeks?

DR. MAURO: Other words, I'm optimistic. I feel as if the issues have been condensed nicely down to very clean, well-understood points. How they actually take life in the revised -- what I will quite frankly do as soon as I get the document and get the green light to go ahead, I will convene something very similar that we just did on Iowa. Everyone read it, telephone conference call, what's your reactions. We'll knock heads, then we'll get in touch -- we'll come to some sensibility regarding our position regarding each of the five or six issues. At that point I would say some type of dialogue with the Board involvement, recorded, and I think that at that point we would be in a position right there to say verbally what our position is on each item. And I guess the actual -- then perhaps a

letter, I -- as you would like, a letter acknowledging yes, these issues have been resolved as far as -- to our satisfaction, or not.

DR. ZIEMER: Yeah, that's fine. Okay.

DR. WADE: So for our own scheduling purposes, we're looking at -- at -- at optimistically in July having revised site profile and an SC&A review of that site profile, so hopefully we can come to closure at that meeting. That's very useful for me for my scheduling purposes. One more just small point to ask the subcommittee. I refer you back to your own motion of February 8th where you asked for a meeting between NIOSH and SC&A. I assume that the meeting that John just referred to would satisfy your requirement there.

DR. ZIEMER: Well, and there has been a meeting or two already. Right?

DR. WADE: I don't think there's been a meeting since you --

DR. ZIEMER: Since then --

DR. WADE: -- passed this motion.

DR. ZIEMER: -- oh, oh, I see. Okay. Okay, so this is -- this meeting would satisfy that.

DR. WADE: Okay.

MR. GRIFFON: It's supposed to be with Board presence?

DR. WADE: Right.

DR. ZIEMER: Right, and a record kept of the...

DR. WADE: I just wanted to make sure that we were -- make sure that things happened consistent with the Board's motion, and so what was discussed here, in the opinion of the subcommittee, is consistent with the Board's motion. Thank you.

DR. ZIEMER: And I think that then completes the discussion on the Bethlehem Steel issue. We'll take a break for about ten minutes, and then we'll come back and we have a few items that are procedural.

DR. WADE: Well, we have three major issues --

DR. ZIEMER: Let's see what we have to cover yet. We have to talk about what -- what we're going to -- no, the next set we've actually talked about. That was a 45-second discussion. The next set is underway but we don't have anything to report on that, so -- next set of 18, but the process will be similar to the last. That's underway.

But we did have some --

DR. WADE: I think -- if I might, we have three things, and maybe more. I think we want to talk a little bit about Iowa.

DR. ZIEMER: Right.

DR. WADE: I think we want to talk about an SEC task for SC&A in a very general way. And I think we want to talk about the task three -- start to talk about a time line. We won't finish it, but I think in the broad sense of, you know, when do we intend to come to closure on SC&A's task three. This is a review of the procedures and steps, and at least talk about that a little bit and --

MR. GRIFFON: And maybe Mallinckrodt Rev. 1 --

DR. WADE: Right.

MR. GRIFFON: -- or did we bring that up already?

DR. WADE: Well, we did, but I think it'd be good to bring it up all together with Jim speaking and then John speaking.

MR. GRIFFON: The reason I raise Mallinckrodt is we -- I think we sort of committed last meeting to resolving that SEC petition in the next Board meeting -- next full Board meeting.

DR. ZIEMER: We did.

DR. WADE: Indeed we did.

MR. GRIFFON: Right.

DR. WADE: And it has been noticed.

MR. GRIFFON: Right. Yeah -- yes.

DR. ZIEMER: Okay, let's take a break and then in about ten minutes we'll resume.

(Whereupon, a recess was taken from 10:25 a.m. to 10:45 a.m.)

SUBCOMMITTEE DISCUSSION

DR. ZIEMER: Let's reconvene, shall we, and finish up here this morning. Let me suggest -- let's see, Rich is here, okay. Let me suggest that we talk briefly about the issue of having a task order directly -- directly involved with a Special Exposure Cohort review process, and I know that Mark has drafted a kind of a straw man task order. But let's talk first -- and actually a detailed task order might be something the full Board would have to look at, but let's talk about process. And Lew, can you help us frame out exactly what would be needed to specifically task S-- task SC&A to assist in the petition review processes?

DR. WADE: Okay, well, let me first sort of put

as foundation -- the functions assigned to this subcommittee, while they relate to dose reconstruction review and site profile review, does ask that we clarify intent regarding the technical scope of tasks assigned to the audit contractor. So I think that gives us an ability to briefly talk about this topic, but not make any decisions on this topic.

What I'd like to do is to read for you from the existing contract as to what it says about SEC work, and I think we need to understand that -- and again, I'll see that that is shared with the full Board, but -- and I quote, (reading) The contractor shall be available to assist the Advisory Board in reviewing SEC petition determinations. The contractor may be requested to assist in some or all of the SEC petition reviews. The contractor shall review all relevant methodologies and/or procedures employed by NIOSH evaluating and processing the SEC petitions consistent with the statute and NIOSH regulations.

So those are the words in the contract. Now those words take you to an understanding that the Board might, on a particular petition, as

SEC (sic) for help or guidance. And that's what the contract currently says.

Again, we can go beyond that in what we -- we take on as a task. We can't stray too far from the words in the existing contract; that's what was competed.

Now what -- to answer your question, Mark --

DR. ZIEMER: But there's no specific task. That was just in the general --

DR. WADE: That's in the gen-- no, we -- we would have to develop a task.

DR. ZIEMER: Right.

DR. WADE: So what would happen, in my view, is that at the next Board meeting -- and I -- I mean the phone discussion -- if the Board could agree on a scope of work for the SEC task, and then if the Board would consider empowering me to do the independent government cost estimate for that, then I could -- armed with that authority, I could see that there would be an SEC task in place for the Board to use as it might see fit by the April full Board meeting. If I didn't have the authority to negotiate the independent government cost estimate, then I would have to come back to the Board.

I think there's an intellectual question as to what the Board wants SEC to do -- excuse me, SC&A to do within the SEC task. And I think again we have to be guided by the words in the existing contract. But I don't think there's anything we need to do today but to start to think about that.

Now Mark, you might want to briefly talk to us about what you've prepared -- again, not to reach closure, but just to set the -- set the stage for thinking.

MR. GRIFFON: You know, which -- which I believe -- I don't -- I have on my laptop a full task order contract with -- it's a -- it's a fairly brief paragraph as a placeholder for an SEC --

DR. ZIEMER: Right, it simply identified that we might call on SC&A to assist in the process.

MR. GRIFFON: Right.

DR. ZIEMER: Right.

MR. GRIFFON: I believe that this is consistent with the scope outlined in there. I don't know if we want to pull that to compare them.

DR. WADE: Well, I think I'll ask a contracting officer to do that before our call.

MR. GRIFFON: All right. But this -- you know, this outlines the -- I guess, you know, five major areas -- major items that we would anticipate possibly asking SC&A for assistance with for certain -- for certain petitions. And -- and it -- you know, I -- well, let me -- let me just step through those items, I guess. Number one talks about a review of the SEC evaluation procedures, the procedures that NIOSH is using to evaluate the petitions. The second part speaks to --

DR. ZIEMER: Let me interrupt. Are those procedures on the list of -- in the procedure reviews?

MR. GRIFFON: I don't think so.

DR. ZIEMER: No. Okay.

MR. GRIFFON: They were specifically kept out because they were petition-related, right?

DR. ZIEMER: Yeah, right. Thank you.

MR. GRIFFON: The second item is -- is having -- asking the contractor to assist the Board in developing a review procedure that the Board would adhere to for reviewing these petitions -- for reviewing the petition reports or petitions.

The third item is sort of an estimate of the number of petitions that may come up -- and this is a one-year task -- number of petitions that we might -- we estimate receiving in a year that we -- requiring SCA's services or assistance with. And I also -- we might -- you know, certainly those numbers are open for discussion 'cause these were pretty much, you know, estimates on my part on -- on what might be coming down the line.

DR. ZIEMER: And Mark, you to some extent have to pick these out of a hat, but for example, contractor required to review eight SEC petitions, I think the intent would be up to -- that would be a maximum for the year?

MR. GRIFFON: Yeah.

DR. ZIEMER: Because we don't know how many -- there may be two come in or --

MR. GRIFFON: And there may be --

DR. ZIEMER: We don't --

MR. GRIFFON: -- some for which we don't want -- we don't need their assistance.

DR. ZIEMER: Right.

DR. WADE: That's right.

MR. GRIFFON: Up -- up to is fine.

DR. ZIEMER: Up to some number, uh-huh.
MR. GRIFFON: And -- and the break -- later I -- I broke them out into DOE petitions and AWE petitions. I think that we have to at least estimate that to give SC&A a chance to estimate cost, 'cause I think we've heard already that the cost incurred can be different, especially for sites where there's no site profile and that sort of thing.
DR. ZIEMER: Uh-huh. So these numbers here are, again, simply to assist in -- the contractor would say okay, for this type of site profile (sic) review, the cost for doing three of those would be such and so, or we might even be able to get a unit cost out of that then. Is that right?
MR. GRIFFON: Right -- and I believe that we have the ability to shift costs within the overall cost, so if it turns out we have more AWEs, the -- petitions from AWE sites, the cost per unit might be higher so they might use up the money a little quicker, but --
DR. ZIEMER: But at least we would -- in the independent cost estimate you would have those figures broken down.

MR. GRIFFON: Right. Right.
DR. ZIEMER: Uh-huh.
MR. GRIFFON: And the fourth one is they would be required to attend Board meetings, and I think it discusses sort of a -- have dialogue with the Board and -- and NIOSH on these issues. I forget how it's phrased. And the -- oh, you...
And the fifth item is required to interview petitioners and -- and consider their testimony or written material -- provided materials, I guess, in -- in the scope of their assistance to us.
DR. ZIEMER: Okay, thank you very much. Now I -- I assume -- and Lew, you can help us out here again -- this -- this would be, for example, a suggested type of task order, the exact wording to be worked out if -- if, for example, you were authorized or some --
DR. WADE: Right.
DR. ZIEMER: -- group is authorized to proceed on this, but what action would be needed here today simply to recommend in principle that the Board adopt something like this?
DR. WADE: Yeah, I mean I think the only action

would be to -- to commit to getting this to the Board for a discussion on our -- I think it's April 5th telephone conference call. I would ask for no more action than that.

DR. ZIEMER: So the only action required here today would be to recommend that the Board review this in the full telephone meeting for possible action. We wouldn't even have to recommend an action, simply --

DR. WADE: Yeah, I don't think --

DR. ZIEMER: -- this be on the agenda.

DR. WADE: Right, and I think recommending an action on this might be a little bit outside the scope of this subcommittee so I wouldn't do that. I think it was fine that we talked about it. I think it should go to the Board and I think we should take that up as a full Board.

DR. ZIEMER: But we can have a motion to ask the Board to review --

DR. WADE: Sure.

DR. ZIEMER: -- this and -- someone wish to make such a motion, that the Board -- that the Board consider a task order for a Special Exposure Cohort review?

MR. GRIFFON: I'd like to make a motion that

the Board consider this task order for a Special Exposure Cohort review.

DR. ZIEMER: Second?

DR. DEHART: Second.

DR. ZIEMER: Any discussion? A comment from Richard Toohey.

DR. TOOHEY: I'd just like to offer clarification. I would suggest you make it explicit that what you want to be reviewed is the SEC petition evaluation --

DR. ZIEMER: Yes.

DR. TOOHEY: -- report.

DR. ZIEMER: Right.

DR. TOOHEY: There is another aspect that --

DR. ZIEMER: Not the -- well, and we -- we may want the petition to be reviewed, as well.

DR. TOOHEY: Well -- right, and I was going to say there was another aspect to that where we initially evaluate and qualify a petition.

MR. GRIFFON: Right.

DR. TOOHEY: There's a procedure for that, so you want to look at that independently --

MR. GRIFFON: Yeah, I specifically -- I think I said that --

DR. TOOHEY: Yeah, --

MR. GRIFFON: -- all this doesn't include (unintelligible) qualifi-- you know.
DR. TOOHEY: Right.
MR. GRIFFON: I think I noted that.
DR. WADE: You did say that, yeah, very clearly.
DR. TOOHEY: Okay. But for -- the main thing for SC&A to do a review would be the petition evaluation report. Right?
MR. GRIFFON: Right.
DR. ZIEMER: Right.
DR. WADE: Right.
DR. TOOHEY: Okay, thanks.
DR. ZIEMER: Thank you. Yeah, see, assistance in reviewing and evaluation petitions and evaluation reports is how it's stated. Okay? All in favor, aye?
(Affirmative responses)
DR. ZIEMER: Opposed?
(No responses)
DR. ZIEMER: Motion carries then. Abstentions?
(No responses)
DR. ZIEMER: Thank you. Thank you, Mark. Now we have the Iowa petition, and just to remind you of where we are on that, the Board took

action at its last meeting and developed a recommendation to be forwarded to the Secretary through the Director of NIOSH that the -- I'll paraphrase -- that the Iowa petition be granted as Special Cohort status. We had discussion of the quality of data and so on, but we didn't really take action on that. Basically action, as I understood it and in reviewing the minutes and the transcripts, the action of the Board was based primarily on a transparency issue and the fact that the data were classified and could not be made available to petitioners or to the full Board, or to the public.

MR. GRIFFON: I'm not sure I would state it that far, but I mean that was part of the final considera-- or final recommendation by the Board. We also noted that there -- the -- our conclusion was based on -- on insufficient dosimetry, dosimetry records, et cetera, so I --

DR. ZIEMER: The point I was making -- in fact, that's stated in the record, but the Board didn't -- didn't specifically make a determination that the data were inadequate. That was raised as an issue and discussed, but

it appeared to me that the overriding issue was the transparency issue and it's so stated as the main point in the record.
Subsequently we had the revision that occurred just shortly after our meeting -- well, actually a determination by the Department of Energy, and again I'm paraphrasing a little bit, but -- and I don't have the dates before me, but it's in the record -- a determination by the Department of Energy that for a particular period -- I believe it was '62 on, does anyone recall that -- that later period -- that -- that those dose reconstructions could be made without the use of the classified information. Therefore, if -- if we were to send our recommendation to the Secretary, it would have been in conflict with -- at that point with NIOSH's statement that the -- that the information was not classified and dose reconstructions could be done. So because of that conflict -- I'm sorry?
MR. GRIFFON: I just -- again, I don't -- I don't know that we have our recommendation -- a draft that we did at the last meeting, 'cause I wasn't really prepared to discuss Iowa that

much, but I -- I -- you know, my -- my understanding, and I know that the majority of the dialogue at the meeting -- and I think it was really due to time pressure -- the majority of the dialogue at the meeting was focused on this issue of classification, but I think that there was a lot more there that -- that lent me toward moving towards Special Exposure Cohort for -- for that class, and it was deficiencies in the dos-- dosimetry, the questions about internal dose being --

DR. ZIEMER: Well, and that very well may have been for individuals, but -- but the fact is, the classification issue became an overriding issue. It was a moot point at that point on the quality of the data, I think -- at least in my mind it was a moot point that even if the data were of high quality that we -- the transparency issue became overriding, at least in my mind. That was my understanding.

MR. GRIFFON: I agree it was a substantial point. I just don't know that it was the major or only point, that's all I'm (unintelligible).

DR. ZIEMER: Yeah. Well, in any event, the -- the issue at that point was should the

recommendation be transmitted to the Director of NIOSH, who then would have to send to the Secretary two conflicting reports, which I think would put the Secretary in an awkward position, as well. His own agency having one particular view and -- and -- we don't have to agree with them, but the issue of classification had gone away and we were using it as a major point in our -- maybe not the only point, but a major point in our decision, so with this revised document, I felt it was important that we at least look at what that contained. And so asked whether or not SC&A could take a look at that and that's what has occurred. The Iowa delegation of course is not overly happy about that. They are quite upset. But it seemed to me we had an obligation to at least look at that new revised document. And in fact, that will cause us I think to focus on the quality of the data as an issue since the classification issue now goes away for that set of information. But it does -- it does nonetheless delay at least part of the Iowa petitioners' response. I mean we could still go ahead with our recommendation as it stood,

but I think it would be a serious problem for the agency in terms of what to do with that recommendation.

Yes, Michael.

MR. GIBSON: Paul, it seems to me, though, that at the time of the meeting and the information we had at hand, the Board made a decision, passed a motion and, at least in my opinion, I think it should have been carried through with, as instructed. And then when we subsequently found out there was other data, we could send a follow-up letter saying we now are -- have been made aware as a Board that this has happened and therefore, you know, we're asking you to hold off while we reconsider. But just to -- it seems like it costs the Board a lot of credibility when we state in front of public we're going to do something -- in fact, I've had some e-mails from -- as most of us have, probably, from Senator Harkin and --

DR. ZIEMER: Yes, we have, uh-huh.

MR. GIBSON: -- Senator Grassley that, you know, we're not following through with what we committed to do. So again, we acted on the information we had at hand, and I think -- I

think in the future that we should follow through with our commitments. Now we can always step back and say, you know, situations have changed.

DR. ZIEMER: And I'm certainly prepared to do that if the Board -- and I think this telephone meeting the Board can instruct the Chair to do that. Remember that what we do is transmit it not directly to the Secretary. It goes to NIOSH. In this case it goes to NIOSH and NIOSH has to determine what to do with that if it -- particularly in this particular case, there's no guarantee it would then -- I don't think -- go to the Secretary necessarily -- or maybe it would, I don't know. But in any event, if the Board so instructs me, we can still set that -- send that --

DR. WADE: But I think Michael's point was for future issues we need to understand his point and behave as --

MR. GIBSON: I might have misstated who to send it to, but I mean, you know, we took action based on the information at hand --

DR. ZIEMER: Right.

MR. GIBSON: -- and I think it should be

followed through then unless the Board advises otherwise.

DR. ZIEMER: Yeah. Well, and other comments on that?

DR. ANDERSON: Yeah, I think the issue is the -- the Board passed a resolution and apparently that was set aside. Is that true, that that -- I guess...

DR. ZIEMER: I'd hate to characterize it as being set aside. It just hasn't been -- it hasn't occurred yet. I mean we can still send that forward.

DR. ANDERSON: Well, a request was made to have our contractor do some additional work on it -- I mean as the record says, we passed that resolution now and I think -- I would tend to agree with Mike that the issue is if we want to revisit it, we can. But at this point, what's happening with that? Why didn't it go forward?

DR. ZIEMER: Well, the reason it didn't go forward is -- and again it is the Chair's decision to delay sending it till we have a chance to look at this new document. But I can certainly -- you know, if -- I think if the Board instructs me to proceed with it, I

certainly will do that. It wasn't clear to me that it would be very helpful to send that forward with the presence of this new document available to us, but -- it's a -- and it's a timing issue, really. Roy?

DR. DEHART: My decision and vote at that time was based entirely on the fact of transparency. Within days, almost before we got home, that issue was resolved and I think it would have been a mistake not to withhold the -- the action until we can -- we can review the data appropriately and have our contractor do so, it likewise would have been foolish.

MR. GRIFFON: I guess there -- there's -- there's lots of questions in my mind on the -- the -- sort of the chronology of events. I think some of those are most -- are best discussed on the upcoming phone call, especially since I didn't bring Iowa materials. I'm not really equipped to discuss, but you know, the ques-- the first question that comes to my mind on some of the chronology is how -- how -- was any of the 19-- is there any new data that's been declassified that -- that is used in this new Rev. 1 and the -- you know,

maybe that's -- some of these questions we can bring up at --

DR. WADE: I think we need to.

DR. ZIEMER: That was my understanding, that there was. But -- and again, I had -- I had the document ready to go, to send to -- to John Howard at NIOSH, which --

MR. GRIFFON: And if so, I think -- even in -- this might even be in preparation for -- for this upcoming conference call is -- is what new information was declassified? Please provide it to the Board so that we can compare the old revision and the new revision and see just where -- you know, why and how this was changed due to declassified information, but -- but -- you know --

DR. ZIEMER: Well, in fact this is where we needed SC&A's help on that, too, that --

MR. GRIFFON: Yeah.

DR. ZIEMER: That's why I asked that we get a quick look at that. I don't know what was in the document, either. I mean I just learned that -- as you did, that that information had been declassified and there now was this revised -- really it's a Technical Basis

Document that's been now revised.

MR. GRIFFON: I gue-- and -- and I guess stepping back to -- to Mike's point, I mean I -- I also was a little bit -- I think I found this out sort of in a back door process. I asked a different question of the contractor and they indicated to me they were working on Iowa, which surprised me 'cause I didn't -- I knew that was one of the site profiles we were not reviewing, so I guess --

DR. ZIEMER: Well --

MR. GRIFFON: -- I guess the question -- I knew you had a timing --

DR. ZIEMER: Well, but I had sent out an e-mail before that, but I won't -- you apparently hadn't seen it or something 'cause I went back and checked my e-mail to the Board on that Iowa issue, and it had been dated --

MR. GRIFFON: Oh.

DR. ZIEMER: -- several days prior to that one that -- 'cause I saw your question -- you asked me the question, but anyway, yeah --

MR. GRIFFON: Regardless, the contractor was set in motion without any full Board sort of process --

DR. ZIEMER: Exactly.
MR. GRIFFON: -- and I understand there was a timing issue, also. But I think --
DR. ZIEMER: Well --
MR. GRIFFON: -- in the future we might --
DR. ZIEMER: Well, really what --
MR. GRIFFON: -- examine that --
DR. ZIEMER: I asked the question and I asked Lew can we in fact have the contractor do this and are there resources to do it and -- and he said to John Mauro can you do this, in terms of your own resources and timing. The answer was yes, but then we had to divert resources from some of the other work. The Iowa issue seemed to me to be pressing, so we -- we did move ahead on that, but --
MR. GRIFFON: It seems -- seems --
DR. ZIEMER: -- if the Board instructs me to go ahead and send the original motion to NIOSH, I will certainly do that.
MR. GRIFFON: And I -- I'm not even -- you know, I'm not weighing in on that, but I'm just saying that -- that we might -- it seems a little bit that we put the cart before the horse here, and I understand there was urgency

to get -- but maybe an emergency conference call, you know, or somehow --

DR. WADE: Yeah, in point of fact, at that moment in time I asked SC&A to look at Iowa. I had the authority to do that. I didn't try to usurp the Board's function, I just felt that -- that it was -- we needed to -- to act immediately if we were going to have material for the Board to consider at its next meeting. Now I would like on the phone call we have of the full Board to discuss this and -- and the Board can endorse what I did or not, as it sees fit. But I took it upon myself to ask them to look at Iowa because I -- I felt that you would want their input when you next faced this decision. And I didn't do it in the name of the Board, I did it on my own. Now Paul knew what I was doing, but I took that decision.

DR. ZIEMER: Michael?

MR. GIBSON: With all due respect, Dr. Wade, but isn't ORAU your contractor and SC&A our contractor? I mean I'm just trying to -- so I don't know -- really understand.

DR. WADE: Well, in point of fact, SC&A's contract is with CDC. They -- right. I mean

so I have the -- I am the technical project officer, so I can instruct them. I would normally instruct them on your behalf. In this case I instructed them without consultation with you.

MR. GRIFFON: I guess we -- we've had these discussions in the past where we tried -- it's a difficult arrangement, obviously, but we've tried to be very clear that the Board controlled the scope on -- even though, you know, the contract is through CDC.

DR. WADE: That's right.

MR. GRIFFON: And you know, this -- this also -- you know, we said that -- that -- you asked SC&A to review the site profile, which I'm not even -- I think that probably was appropriate --

DR. WADE: Yeah.

MR. GRIFFON: -- but -- but it's also -- also part of that is what exactly were they asked to do, 'cause this -- this falls maybe under the site profile review piece, but I think you're also asking them the ques-- those tricky questions that fall under petition.

DR. WADE: I haven't yet --

MR. GRIFFON: Is data adequate for -- for determination -- you know.

DR. WADE: And we have not asked them those questions. All I've done is ask them to add this to the list of site profiles to be reviewed and to accelerate it. I think it's incumbent upon the Board to decide if you want to add any additional questions to that task, but I have not added any questions to that task.

MR. GRIFFON: And just to -- just to follow up on that, I -- can we -- can we ask just that type of question that I just mentioned without falling into the SEC petition task that we're -- the draft that we're discussing now? 'Cause this -- in site profile reviews we -- we stay away from that question of whether the data was sufficient to make a determination.

DR. WADE: I think it depends upon the question. I think that's something we need to talk about as a full Board and decide if we can ask the questions the Board would like asked under the site profile review. That's a judgment that the contracting officer would have to make. I would hope that we could. I'm

also trying to accelerate having an SEC task in place so that if we go beyond that, then we have a mechanism for doing that.

DR. ANDERSON: Yeah, I think -- I think -- to me, the issue is if -- are we going to get the answers from this review that we need in order to move forward on this. I mean I'd hate to have on the call or whatever them say well, that wasn't what we were asked to do and we're left in the same quandary that we were. I mean we --

DR. WADE: Right.

DR. ANDERSON: I mean we really need to move this one way or the other.

DR. WADE: Right, and --

DR. ZIEMER: Yeah, and we -- we don't even know at this point whether or not SC&A will be in a position to have done the full review -- I can't recall, John -- I know there -- there was a -- there was a bit of a push as to the timing and whether we could be prepared for the next Board meeting, but -- but let me say in any event I think at the telephone Board meeting where we're going to talk about process, I think it's very appropriate for the Board to

say in cases like this we should go ahead in a timely way -- you know, for the Chair to go ahead and implement the Board's action in a timely way, even if -- if something else emerges, 'cause they -- we can go back and say okay, in light of this new data we now have a new recommendation. So I -- I quite understand. Your point's very well taken.

MR. GIBSON: I just -- you know, I just think it's very important for our credibility and --

DR. ZIEMER: Right, right.

MR. GIBSON: -- with the public and --

DR. ZIEMER: Right.

MR. GIBSON: -- you know, we made our decision based on the information at hand.

DR. ZIEMER: Right.

MR. GIBSON: And you know, then to get a letter that, you know, we're delinquent in our duties from a Senator --

DR. ZIEMER: Right.

MR. GIBSON: -- and I just -- I don't -- don't feel comfortable with that.

DR. ZIEMER: No. Thank you. Okay. John?

DR. MAURO: Yes, we -- we began work Thursday of last week and we did what I call a

horizontal review, which meant there were about five people who read the document cover to cover, and we compiled a list of approximately 50 observations, questions, issues that emerged from what we call the horizontal review.

We have delivered that letter to you folks. Our expectation is some of those might be important, some of those may not be important, we don't know at this point. Our expectation is to meet as soon as possible with NIOSH to discuss those 50 or so issues.

In the meantime, the -- to -- to answer your question, are we going to be able to complete our site profile review within the next two or three weeks, and the answer is we will certainly complete a lot of it, and we might complete the most essential portions of it. However, there's one major problem that is glaring. Our horizontal review has revealed the areas of greatest vulnerability are the early years. That is in terms of doing a good technical -- whether or not the data are adequate, the information is sufficient in order to -- to do dose reconstructions for the early years. In other words, we're doing a

data adequacy -- that's part of a site profile review, data completeness. Our most important observation has to do with the approach that was used to reconstruct doses for the early years. In order for us --

DR. ZIEMER: Meaning pre-'62?

DR. MAURO: Pre-'62. And the approach that was adopted in the site profile was to have a -- what's called a construct. That is so that they did not have to -- I'm sorry to go on, but -- so that NIOSH did not have to disclose or declassify information that came up, what would be called a construct, a reference weapon or pit. And from that, say this is a bounding pit and any doses associated with the handling of that pit is going to be bounding, we have lots of questions related to whether or not that in fact is a bounding construct. And the only way we're going to be able to probe that is by having our Q clearances in place, which have not occurred yet. And without that, we're not going to be able to add very much value to that aspect of the review.

DR. ZIEMER: But that may be a moot point because the early years would still be covered

by our action, in any event.

MR. GRIFFON: Your -- your -- your clearances are going to be critical, though, and if -- if we don't have access -- maybe as the Board, as Lew indicated earlier, but also as the contractor --

DR. WADE: Well, we're doing everything we can. I think we have done everything we can and will do more to try and see that your two people get their clearances as quickly as possible. I do believe it's in the offing, but it hasn't happened yet.

Again, to go back to the issue, I think it's important when the Board deliberates on this issue that it doesn't consider the technical availability of data issue moot simply because of the transparency issue. I hope that's a lesson that we've learned. I mean I think the Board needs to consider both issues thoroughly for both time periods when it deliberates on this issue. I think it is important that the Secretary gets a complete report on technical availability as well as issues of transparency.

DR. ZIEMER: The 50 questions John referred to were -- appeared in a letter dated March 22nd,

so it was earlier this week. I believe we asked -- and I believe it has been done -- asked John Mauro to send those questions to all the Board members. John, didn't we --

MR. GRIFFON: Yeah, you did do --

DR. WADE: I think that's been done.

DR. ZIEMER: So if you didn't already get it, it's probably sitting in your e-mail.

DR. MAURO: We have sent them out. Whether or not you've received them early enough --

DR. ZIEMER: It would have been within the last day or so.

DR. MAURO: Day, exactly.

DR. ZIEMER: I think I got them yesterday, and I have them here, but these are some preliminary questions that they raised on this revised Iowa document. And again, we're not going to consider it here, but it's part of the process that they are trying to get a grip on what issues are out there in this revised Technical Basis Document.

Yes --

MS. HOMOKI-TITUS: I just wanted --

DR. ZIEMER: -- Liz, please.

MS. HOMOKI-TITUS: -- to remind you in your

considerations of sending -- Dr. Ziemer sending the recommendations to the Secretary that it does trigger a 30-day time period, and so if y'all were to reconsider information, the Secretary may have had to go ahead and send a decision to Congress already, so I just wanted to remind you of the 30-day time period that you all trigger when Ziemer sends a letter and (unintelligible) that you're getting information.

DR. WADE: And let me expand upon that a bit, and again, this is for the Board to decide, but if you were to send a recommendation forward and there was to be new information available for the NIOSH Director to consider, a time clock would be put in motion where a decision would have to be made, and it could well be the Secretary would then deny.

What has happened now, I think, is your motion is still active. You will look at the materials and then you will decide what it is that you wish to do. I would want to avoid the possibility of a summary denial based upon new information. I think it is better to keep the issue open, but that's a decision you have to

make.

DR. ZIEMER: Right. The time clock doesn't start until we send our recommendation. But at that point then it forces the decision. If the Secretary has a -- I think what your point is, if the Secretary has conflicting information from the Board and from the agency and it's not clear what way to go, he could turn it down based on that.

DR. WADE: Right. I don't think your motion has been scuttled. I think it's still an active motion and you can do what you want with it as you consider the new information.

DR. ZIEMER: Okay. Mike?

MR. GIBSON: Well, just to make it clear, I guess my point is when other issues come up we can set in motion a conference call and everything else, and I just think for the Board to be made aware by letter from a Senator's aide rather than a Chairman or NIOSH I think is inappropriate.

DR. WADE: Understood.

DR. ZIEMER: Okay.

MR. GRIFFON: I also just want to follow up on Lew's point that -- I regret at the St. Louis

meeting, but I think it was mainly due to time constraints, but I regret that the emphasis and certainly the record that we built focused on the issue of transparency because I believe we had before us -- and I thought actually, having reviewed it -- some pretty compelling information that suggested that doses could not be reconstructed with sufficient accuracy. So we had lengthy data provided by Dr. Bill Fields of University of Iowa, testimony there at the site -- or on site that day at St. Louis that -- I don't think we deliberated very much on those -- on those statements. We focused on the transparency, and I do regret that, as well, but I think we did have some of that there at the time when we made -- when we formulated this --

DR. WADE: I -- I --

MR. GRIFFON: -- recommendation.

DR. WADE: I do think that -- that it's important that the Board build a record, and again, even if you go back to Iowa pre-'62 and there does appear to be a transparency issue there, I wouldn't limit the date on the availability and the adequacy of the data for

that period. I think it's terribly important that the strongest possible record is built and provided to the Secretary.

DR. ANDERSON: So what are we going to have new available?

DR. ZIEMER: Yeah.

DR. ANDERSON: Yeah, I mean what are we going to have available that's new at our next meeting? I guess I just don't want us to, you know, be rolling on something and face a similar thing that you did at the last meeting where -- you know, what -- what are we going to have to review that's -- that's different at the next meeting that would modify what we're...

DR. ZIEMER: We will have the revised site profile, number one. We hope to have some evaluations from SC&A. Whether or not we have -- I believe we have a number of Board members who have classi-- have Q clearance that could look at early data. Whether they can do that before that meeting, I don't know, because that -- again, we're very much pushed for time. I think Cori did a survey in the last week or so to find out who had Q clearance and, let's see,

Roy, you have Q --
DR. DEHART: Had.
DR. ZIEMER: You had, okay. Rich Espinosa has Q. Mike, yours has lapsed?
MR. GIBSON: I imagine it is.
DR. ZIEMER: Yeah, it says past. Mark has Q, Bob Presley has Q.
DR. WADE: That's it.
DR. ZIEMER: And that's it. Mine has lapsed also, so --
MR. GRIFFON: And I'm not quite sure whether Q gets me in the door because, you know, you also have a need-to-know --
DR. ZIEMER: It's a need-to-know issue, right.
MR. GRIFFON: -- statements which are site-specific, sometimes site -- you know, that -- that's --
DR. ZIEMER: Right. I mean you can't just walk in there at that point, so --
MR. GRIFFON: Right.
DR. WADE: Rich has his...
DR. ZIEMER: Rich?
MR. ESPINOSA: A little bit more -- expand more on what Mark's saying, too, you know, the -- the diversity of this Board -- you know, I have

a clearance, but my background is within manual labor, not health physicists or anything like that, so the documents that I would be reviewing that are classified, I'm not sure --

DR. ZIEMER: Right, you're going to be talking about -- I think we're talking about weapons information and pit --

MR. ESPINOSA: Yeah.

DR. ZIEMER: -- parameters and some -- some other factors that go into the reconstruction, so that's a good point well taken, as well, that -- but it may be that a couple of Board members could take a look at that.

MR. GRIFFON: Does Bob Presley have a Q currently?

DR. ZIEMER: Yes.

MR. GRIFFON: And he also -- working at Y-12, he would be useful in this I think.

DR. ZIEMER: Right. Right.

DR. WADE: So my question is, is it -- sorry.

MR. ESPINOSA: You would have to be a little bit careful with that, you know, basically calling them a site expert or something like that rather than -- you know, because of the conflict of interest forms that we have out.

Also on the -- on the clearance --

DR. ZIEMER: Well, I think he'd be all right at Iowa, he'd --

MR. ESPINOSA: Oh, at Iowa, yeah.

DR. ZIEMER: Yeah.

MR. ESPINOSA: And just a little bit more on Q clearances, I know at Los Alamos DOE started a program for a rapid clearance, and I don't know if that's anything this Board has looked at in providing -- or -- or getting information out for SEC (sic) to apply for.

DR. ZIEMER: Rapid clearance?

MR. ESPINOSA: Yeah.

DR. ZIEMER: Yeah. Of course one would ask what that means in DOE --

DR. WADE: I shudder to think what that --

DR. ZIEMER: Less than a decade.

MR. GRIFFON: My clearance was about a two-year process, but I heard during this process that if they really want to expedite it, they can do it in a couple of days, so I don't know.

DR. ZIEMER: They don't do that with the rank and file, I think.

MR. GRIFFON: Right, right.

DR. ANDERSON: Let's just be sure we have it

all together at the next meeting so we don't have to --

MR. GRIFFON: Well, I guess what this raises is can -- can we either -- some Board members maybe along with SC&A, before the next conference call, have an opportunity to in any way look at that. I think it's pretty --

DR. ZIEMER: I think SC&A is still waiting for Qs. Isn't that correct?

DR. MAURO: Yes, we are, but I've been told by Joe that -- Joe Fitzgerald, by the way, is one of the individuals that will be seeking -- that it's imminent. And -- and that -- and the plan that we have is we have a team that is raising questions and that tho-- some of those can only be answered by looking at classified documents, so Joe and Kathy DeMers will be sort of the people who would be going forward into the Q or into the classified documents and try to answer the questions that'll be imposed by the team. We -- the -- an example would be okay, there's a construct that supposedly bounds the exposures that the pre-'62 folks were exposed to while handling the pits, and there is -- the construct is it does-- it's not a real weapon,

it is a hypothetical weapon. The question that we're posing is, in the judgment of the folks that have the Q clearance when they go into the literature, is there good reason to believe that in fact that construct is bounding. That's the -- when all is said and done, that's going to be the heart of our work.

DR. ZIEMER: Where do the -- the documents that would be involved in this, do they exist -- are they at NIOSH? No.

DR. WADE: Jim, could you come and talk to us about -- if this was to be able to happen, that Board members could look at the documents, how would it happen?

DR. NETON: Right, they would have to travel to -- I believe it's Germantown. The office is in Washington area.

DR. ZIEMER: They're not sitting out in Iowa someplace.

DR. NETON: NIOSH does not possess any classified information at all.

DR. ZIEMER: Right.

DR. NETON: And -- but we would be willing to send our health physicist who has a Q clearance with the team, sit down in classified space --

DR. ZIEMER: And go through --
DR. NETON: -- and we'll coordinate with the Department of Energy and they would have access to the same documents that our health physicist did.
MR. GRIFFON: We may want to --
DR. ZIEMER: Could we get Mark and Bob, for example?
MR. GRIFFON: Well, the question -- what I was going to say, maybe -- I know the timing is critical here. I was going to say maybe the Board wants to send a workgroup, which could be Bob and I, you know, but I don't know that we can assign...
DR. ZIEMER: That would -- that would have to be done, I think --
MR. GRIFFON: A week till the conference call. Right?
DR. ZIEMER: Actually the Chair can assign workgroups.
MR. GRIFFON: Okay.
DR. ZIEMER: So if that's something that could be done before the next meeting, I think I have the authority to do that.
MR. GRIFFON: I would -- I would -- I suppose

volunteer, if -- but also I'd like to -- to -- if it was possible, to do it along with the SC&A team and the NIO-- you know.

DR. ZIEMER: Right, if we could coordinate Joe -- is it just Joe or was one other person, was --

DR. MAURO: Joe Fitzgerald --

DR. ZIEMER: -- is Hans involved?

DR. MAURO: Not yet. Joe Fitzgerald and Kathy DeMers.

DR. ZIEMER: And Kathy?

MR. GRIFFON: Also, is there a contact at NIOSH that we can wal-- that can walk through my clearance and see if I need any revision to my need-to-know to get into the Germantown facility and to review weapons-related records. I'm not sure -- I think I have -- I'm not sure I have the ability to look at weapons-related...

DR. NETON: I agree, I mean there's -- it's not an automatic if you have a Q clearance, I don't think.

MR. GRIFFON: That's right.

DR. NETON: But Martha DiMuzio in our office is coordinating that effort with the -- we're

working through the Office of Worker Advocacy in this regard, so --

DR. ZIEMER: For -- for the SC&A folks (unintelligible) --

DR. NETON: -- as well, so --

DR. ZIEMER: We'll ask Lew to coordinate --

MR. GRIFFON: I mean -- I mean if I could ask --

DR. ZIEMER: Let's try to get --

MR. GRIFFON: I could provide my badge number and stuff if someone can run it through and see --

DR. NETON: If the Board agrees who's going to be sent --

DR. ZIEMER: I think it would be Mark and Bob would be the people, if they'd agree to it. I think Bob has some expertise in that area and has worked in the weapons area.

DR. NETON: Okay.

DR. ZIEMER: Richard?

MR. ESPINOSA: I just want to make sure that we're not bound -- when you're setting up the working group that we're not bound like the subcommittee to people --

DR. ZIEMER: No, the working group is ad hoc

and we would charge this group with specifically accompanying our contractor to examine the Iowa data that's apparently held in Germantown to help ascertain its -- its value in -- in making credible dose reconstructions, something along that line.

MR. ESPINOSA: Okay. Just another thing --

DR. ZIEMER: And then they would report back to the Board.

MR. ESPINOSA: I understand that the information will be coming from, you know, Iowa, the IAAP. But it -- we still have to be careful with the conflict of interest because, you know, some of our Board members are tied in with NTS and some of that information might be NTS in-- NTS information, also.

DR. ANDERSON: We won't know that.

MR. ESPINOSA: Yeah, we won't know that, so...

DR. ZIEMER: Well, and then at that point they would have to somehow recluse (sic) themselves.

MR. GRIFFON: (Unintelligible)

DR. ZIEMER: Yeah. Yeah, and you don't know that out the door, I guess, yeah.

MR. GRIFFON: Right.

DR. ZIEMER: A good point, though.

DR. ANDERSON: No, I mean the -- the point is, if you -- if somebody has already looked at that data --

DR. NETON: I'm not convinced that they could even reveal that, though.

DR. ANDERSON: Well, I -- yeah, I -- well, I -- I would say you do -- you would know that. Whether you could reveal it or not, you know, it could -- it would help with the construction of the workgroup.

DR. ZIEMER: Well, let the Chair exercise that prerogative and appoint the working group of Mark Griffon and Bob Presley --

DR. ANDERSON: Second.

DR. ZIEMER: -- to carry that out and -- I don't -- I don't think it requires -- we'll take it that it's agreed to by the subcommittee, but I think the Chair has the prerogative of appointing workgroups, and these are ad hoc. It's a one-time job and they would report back to the Board. We'll try to coordinate their effort with our contractor and with the NIOSH person to gather the appropriate information.

MR. GRIFFON: Can I --

DR. ZIEMER: Anything else on Iowa at the moment?

MR. GRIFFON: I just wanted to ask -- apparently NIOSH -- Jim Neton, maybe -- if -- if there are any new declassified documents available for Iowa and are they on the O drive that we have access to or do you know?

DR. NETON: There are no additional declassified documents available from -- since the time that Rev. -- Revision 1 was -- was written and authorized by DOE as not containing classified information.

DR. ZIEMER: Revision 1 is this new revision.

DR. NETON: Correct, Revision 1 -- the documents -- there are no additional documents that have been declassified. What was determined to be declassified or unclassified was the content of Revision 1. Revision 1, as written by NIOSH, remained intact with no redactions by the Department of Energy.

DR. ZIEMER: At the time we were meeting Revision 1 actually existed.

DR. NETON: It existed, but it was undergoing classification --

DR. ZIEMER: It was undergoing review, so we

did not have access to it.

DR. NETON: Right. And in fact what happened is the Department of Energy did not redact anything from our Revision 1 of the document. It stayed completely intact as written, which could not have been a priori determined by NIOSH.

DR. ZIEMER: So we had Rev. 0 to work with. Rev. 1 existed, but couldn't be revealed to us 'cause it was undergoing review by DOE, and then they didn't finish that review till after our meeting. Okay.

DR. ANDERSON: So is this -- we're hoping to get this done by the April call or are we waiting -- is this a July issue?

DR. WADE: Or by the April meeting. I mean it -- there's an April call in early April, and then there's an April meeting at the end of April --

MR. GRIFFON: We're going to be in Iowa.

DR. WADE: We're going to be in Iowa, so it's our hope to have this --

DR. ANDERSON: (Off microphone) (Unintelligible)

DR. WADE: -- by the April -- the end of April

meeting in Iowa.

DR. ANDERSON: Okay.

DR. ZIEMER: Right, and -- and --

DR. ANDERSON: (Off microphone) (Unintelligible) have that time line.

DR. ZIEMER: And the meeting in -- the phone call meeting in early April will be one where we talk about process, including this issue of the Chair's handling of Iowa and what the Board would like to do with previous action, and what's coming up with this procedurally. We'll talk about that, we'll talk about the process for having the contractor assist with task orders and -- was there another item?

DR. WADE: Well, this issue of are there particular questions we would want to pose to SC&A relative to their review of the Iowa site profile, and we have asked them nothing at this point but to review the site profile. I think the Board might want to pose some particular questions, and that would be discussed on that call.

MR. GIBSON: NIOSH is -- NIOSH is going to bring the protective gear for the Advisory Board (unintelligible)?

DR. ANDERSON: (Off microphone) (Unintelligible) (On microphone) I just think it's clear that we have our strategy, and if that changes that, you know, we make that known to everybody as soon as possible. And the other question I had is are we going to be -- are you going to be sending a letter detailing this to the Congressional people so they know what our --

DR. ZIEMER: Well --

DR. ANDERSON: -- strategy is.

DR. ZIEMER: Yeah. I think Lew has had some contacts with the Congressional people. You know, I -- I've gotten -- in fact, my wife informs me today that I got another letter from the Senator today. Maybe it's the same one that I've already seen, but in any event, I'm -- I'm somewhat hogtied in res-- I can't respond to those unilaterally, either. You recall the Board does not wish the Chair to respond to Congressional letters without the Board seeing them, so that's a little awkward. But Lew has had an opportunity to interact a bit with the staff on the Hill, so they're aware of some of these issues.

DR. WADE: Yes --
DR. ZIEMER: They're not necessarily happy with them, but they're aware of what's going on.
DR. WADE: I do meet with the delegations from Iowa and I do understand their concerns, and NIOSH is communicating -- we believe very clearly -- with them as to events past, present and future.
DR. ANDERSON: Okay, that -- I just -- I just want to be sure that our communication lines are -- are not going to lead to us getting some other irate comments.
DR. ZIEMER: Well, one thing that will be very difficult is if we get out to Cedar Rapids and we are not ready -- we don't have the information, we don't have the report or we haven't reviewed the new document or we're not --
MR. GRIFFON: We may not have clearances by then. I mean I hope we can expedite them, but --
DR. ZIEMER: Yeah, and if that occurs, that -- that's going to be extremely awkward to go out there and not be in a position to act on the Iowa petition. In fact, it may -- you know, we

-- we may all head to Oak Ridge instead.

MR. ESPINOSA: Just make sure Cori sits us up close to the exit.

DR. MAURO: Excuse me, Dr. Ziemer, I have a process question related to these -- unlike the other site profile reviews, it was a process whereby there was -- where we would generate a list of questions, then we would deliver them -- and there was -- it was a protracted process. What we're in a mode now is that we sent you the first set of approximately 50 questions. Since that date I received additional -- we're still working, as you can imagine, and we have about another seven or eight more questions that have been sent to me.

The question becomes can we somehow construct a living process over the next three weeks -- 'cause that's what we've got -- whereby we -- we're -- we're maturing in our understanding of the issues. Our questions are getting more refined. I'd like to move those out, have them be -- some of them may be very good questions, some of them may be not very good questions; we're not at a position yet to be able to make that distinction.

Normally we would spend a lot more time researching our questions, reading the back-up literature so that we don't ask silly questions. I'd -- right now I'm not so worried about that. I'd like to move out the questions as they're generated. They'll go through an internal SC&A screening to make sure that they're appropriate and reasonable, but I'd like to keep moving them out to you folks and to NIOSH so they could see in real time where we are.

And then now the question becomes how do we engage in the dialogue with NIOSH and the Board in a living process? For example, there could be certainly phone calls. There should -- they may be recorded, but I'd like to request a mode of operation that is more continuous and interactive as we move through the next three weeks, which is somewhat different than what we've done in the past. I think that only in that way will we get to the point where we can deliver a report to you that you will have at least a week -- hopefully a little more -- before the meeting that would represent -- a report that is -- is a mature report that has

received adequate interaction with factual reviews. So it becomes a little bit more of a living process. Whether or not NIOSH and the Board would like to proceed in that fashion, that's how we'd like to proceed.

DR. ZIEMER: When John first posed this -- essentially this question to me, it -- in terms of what should the Board's role in this be, and of course none of us individually can act on behalf of the Board, so it is my sense of it that these questions essentially become questions to NIOSH relative to their document and --

DR. MAURO: Yes.

DR. ZIEMER: -- and -- and John is expecting their response. It seems to me the Board can track what's going on, and Board members may even raise additional questions or ask for clarification of things. But we can't answer the questions in terms of a Board position.

DR. MAURO: Uh-huh.

DR. ZIEMER: But I thought it would be useful -- and this is kind of a new process, at least be aware of what's going on so I --

MR. GRIFFON: Kept in the loop.

DR. ZIEMER: Kept in the loop, and at some point, if there is going to be sort of a face-to-face -- like an issue resolution time, we certainly want to have a presence there. But otherwise, this is kind of a new -- this is a special situation. But the Board's not really in a position to sort of take any actions on those questions other than to be aware of what they are, what's being raised and -- and having the new document. If we have questions to raise we can throw those in the pot and say yeah -- or -- or would you consider this additional part of a -- of a question that's already been asked or whatever. So I think we're free to do that 'cause you can ask a question. That doesn't represent a Board position. But -- but to go back and say this is -- this is how you should resolve that, I don't want to do that; I don't think we want others to do that. So these will essentially be questions for NIOSH --

DR. MAURO: Yes --

DR. ZIEMER: -- to deal with.

DR. MAURO: -- but we also recognize that it should -- the dialogue with NIOSH should be one

that is -- that the Board sits in on --

DR. ZIEMER: Yeah.

DR. MAURO: -- as part of the process, because we're anxious to engage NIOSH on the first set of 50 questions.

DR. ZIEMER: Right. And so insofar as there's responses, I think we want to hear the responses. Jim, just keep us in the loop. And then at some point if there's a sit-down or a telephone kind of conference needed, we want to have a Board presence there and we can do that on an ad hoc basis, I think.

DR. WADE: Let's just talk through that. So -- I mean I would commit that any contact between SC&A and NIOSH on this issue would be recorded and a transcript kept. Do you want a Board member to be present on any phone call between SC&A and NIOSH at this point? I'm asking this question now -- I'm asking the Board that -- or the subcommittee that.

DR. ZIEMER: It seems to me that there'd have to be a judgment on the level of significance of the phone call.

DR. WADE: Okay.

DR. ZIEMER: If somebody just said what did you

mean when you asked that question, what does this word mean, that's one thing. If they're going to have a dialogue and debate some issue, I think that's where we're talking about --

DR. MAURO: That's what I mean. The nature of the relationship is a dialogue, that's an ongoing dialogue. And given the ground rules of transparency, I believe it's important that certainly Board members be -- listen in and be part of that -- selected Board members. We could certainly, if it's a telephone call, have it recorded, have a court -- I'm not sure how you'd like to proceed, but I'm looking for guidance from the Board on when we engage in this -- what I'd like to be called -- call an ongoing dialogue over the next three weeks. It may be -- it may involve a weekly telephone call to NIOSH that we would continue the dialogue because as you could almost imagine -- right now Kathy DeMers is out interviewing folks related to these matters. Very soon Joe and Kathy will be looking at classified documents and -- and we're -- and -- our list of questions is going to evolve, and I'd like the Board and NIOSH to be close to this process

because when we deliver the report three weeks from now, I -- I would -- I would hope that's not the first time NIOSH and the Board sees our report.

DR. ZIEMER: Well, I think it's going to have to be Bob and Mark -- well, I mean the -- the questions are going to start to impinge on -- on --

MR. GRIFFON: Well, we certainly can't discuss classified information on a phone call, so I'd say maybe -- maybe Bob and I, but maybe someone else, as well, if you want a third person.

DR. ZIEMER: Well, I'd be glad to be in the loop, but I -- it's -- it's not clear to me at this point --

DR. WADE: Can I?

DR. ZIEMER: Yeah.

DR. WADE: Let me propose this solution, that any interaction -- be it on the phone or face to face -- between SC&A and NIOSH on this issue will be recorded. Any interaction, the Board will be notified of that interaction and allowed to participate, if they wish. But on those issues that, in the opinion of NIOSH and/or SC&A elevate to a certain level that it

appears to be a substantive interaction, that those would not take place without a Board member present.

MR. GRIFFON: That's (unintelligible), yeah.

DR. WADE: Thank you. Okay?

DR. ZIEMER: Is that okay? Okay.

MR. GRIFFON: Let me --

DR. ZIEMER: Yeah.

MR. GRIFFON: Can I ask if -- if we're closing on Iowa, I've got to -- I -- some of us probably have flights, but I have one question on logistics on Iowa. If -- if -- assuming we get these clearances in a timely fashion, SCA is going to provide to us in their site profile review a -- a review of some of that information, classified records. I'm sure that they're going to have to run that through the same declassification process that NIOSH went through with Rev. 1, so there's another -- another delay in there. I'm getting quite nervous about the time frame and what we're setting ourselves up for in Iowa, you know, just to put -- just to put that out there. I mean it's not only getting the clearances, it's anything they generate that -- that is covering

classified items, certainly they're going to have to run that through a declassification officer to assure that it's not -- they're not generating a classified document.

DR. ZIEMER: Does that --

DR. NETON: Unless their decision was that they were in complete agreement with the NIOSH profile and there were no -- no dissenting opinions, I suppose. But yeah, to the extent where there were differences that are raised based on the classified information, yeah, it would have to be reviewed. We've been -- we've been having very good cooperation with the Department of Energy thus far, though, on obtaining quick and prompt reviews of documents that have been generated. I have to say the cooperation there has been excellent within the Office of Worker Advocacy.

I had a quick question, though, on -- on what is meant by "recording". I expect these discussions to be fairly -- fairly spontaneous as they arise, and are we referring to a physical recording or a court recorder with a transcript, because that -- that would be a limiting factor, I think. It's very difficult

to obtain --

DR. ZIEMER: Well, in the past haven't we just kept minutes of these interactions, John, if they're not face-to-face?

DR. MAURO: The last expanded review cycle there was a court reporter.

DR. ZIEMER: On the telephone?

DR. MAURO: On the telephone. That was the one that was on January 12th at the McLean office.

MR. GRIFFON: But that was -- that was -- I think that was where we raised it to the higher bar, maybe --

DR. MAURO: Yes, we did.

MR. GRIFFON: -- so...

DR. MAURO: I think that we're operating on that. See, this is not a factual review process now. This is going to be an engagement --

MR. GRIFFON: Right.

DR. MAURO: -- where I believe it's on that level where we're going to be discussing issues of substance. Certainly there's going to be this classification overriding problem. I'm not quite sure how we're going to deal with that. That is, I -- I don't have the

classification, but I know right now I'm very interested in finding out whether or not the construct for the pre-'62 pit is in fact a bounding situation. And we have a list of at least a dozen questions that are in the set of 50 that we'd like answered, and -- and to discuss with NIOSH.

MR. GRIFFON: I think given the nature of this review and its potential impact on the petition, I think we need to transcribe these, at least for this --

DR. WADE: We certainly need to -- to have the ability to have a transcript. We'll work out the details of recording and transcript or --

MR. GRIFFON: Okay.

DR. WADE: -- or actual --

MR. GRIFFON: Right.

DR. WADE: But we'll have a recording of everything that's discussed.

DR. ZIEMER: Do we need to have a Plan B for the meeting if we don't finish the Iowa work in time for --

DR. ANDERSON: What's the drop-dead date for...

DR. ZIEMER: This is a difficult question for Cori, but I mean if we go to Iowa and we're not

prepared to act on the petition, I think it's going to be a disaster.

DR. WADE: Well, I think we have to use that meeting we have the first week in April to decide if we're ready to go or not.

MR. GRIFFON: Yeah, and we'll bring it up --

DR. WADE: We might have to cancel the meeting.

MS. HOMER: I need to sign the contract very soon.

DR. WADE: Well, we'll work through those --

MS. HOMER: Mid-week next week.

DR. WADE: We'll work through those details. I think on our call in early April if we feel we're not prepared, we need to make that decision then and to take the appropriate steps.

DR. ANDERSON: That's two weeks. Right?

DR. ZIEMER: Yeah, it's coming up very rapidly.

DR. DEHART: Do we have a date and time for the call?

MS. HOMER: I'm sorry?

DR. WADE: Date and time for the call in early April.

DR. ZIEMER: I don't think we --

MS. HOMER: April 5th -- it's most likely going

to be April 5th from 1:30 to 5:30.

MR. GRIFFON: And we were able to get a quorum for that call?

DR. ANDERSON: Eastern time?

MS. HOMER: Eastern.

DR. WADE: Yes.

DR. ZIEMER: Eastern time.

DR. WADE: We have a quorum.

DR. ZIEMER: Is there anything else on Iowa that we need to discuss? What about Mallinckrodt?

DR. WADE: I mean I do think we've had it reported to us -- I mean the revised site profile has been issued by NIOSH and is in the hands of SC&A and John, we -- the Board could expect to see the SC&A review when?

DR. MAURO: Yes, we started work -- in fact, I actually have a little mini-report that was sent to me yesterday by FAX. We've identified some of the issues and we're moving aggressively. We will meet our one-month commitment from the date we were turned on. I think we were turned on a week ago. We will -- we will deliver within the one-week -- one-month period, as we discussed at the last

meeting. And it will be -- basically the -- the report will take the form of each of the issues -- findings and observations, as you recall, the degree to which the Mallinckrodt report addresses those issues and the degree to which we concur or --

DR. ZIEMER: What is your delivery date?

DR. MAURO: One month -- when -- the day -- one month from the day you asked us to proceed, which was I believe sometime last -- last week. I'm trying to think of the exact date. I'd have to go check in my records, but --

DR. ZIEMER: It's roughly April 15th, though.

DR. MAURO: Yeah, we're -- we're -- yeah, we're -- well, we're -- middle of April is when we plan to deliver it. I don't have the exact date, but that's about one month.

DR. ZIEMER: And then there has to be an opportunity for NIOSH to --

DR. MAURO: Yes.

DR. ZIEMER: -- respond.

DR. MAURO: Yes.

DR. ZIEMER: So we're -- what we're looking for at our -- if we're going to -- we've committed to take action on Mallinckrodt at our next

meeting. And to do that, we not only need the SC&A review, but we need the NIOSH response.

MR. GRIFFON: Right.

DR. MAURO: We're -- we're a lot more optimistic of being able to deliver our work product to you early, with adequate time for discussion with the Board and NIOSH regarding our review of Mallinckrodt than we are with regard to Iowa. We're -- we're nervous about whether we're going to be able to do (unintelligible) --

DR. ZIEMER: Yeah, but then -- but then NIOSH needs some turnaround time, also, on -- before our meeting, and I don't know -- Jim --

MR. GRIFFON: Eight days.

DR. ZIEMER: -- that's pushing your folks quite a bit --

DR. WADE: Wait, John, am I -- do I understand that in -- factored into your delivery date to the Board is an opportunity for you to have a discussion with NIOSH?

DR. MAURO: We certainly could work that in. That is right -- for example, right now I have a list of our preliminary observations related to Rev. 1 of Mallinckrodt. I've got it here in

my hand. In theory, we could convene a meeting right now and sit down and go over each of these items and talk about them.
We could certainly wait until we -- this -- this is a very early response. We could -- certainly we could have that meeting early April to go over our initial list of findings so that -- and deliver our report by April 15th. At that time you'll actually have the report and I think what -- with at least a week, I guess, in front of us for -- before the -- before the meeting. The meeting is scheduled for the 24th. So -- so -- I mean it --

DR. ZIEMER: It seems to me if NIOSH sees it for the first time when we see it that they're really behind the eight ball.

DR. MAURO: I could -- I mean I could certainly leave with NIOSH right now the memo that I have of what our initial reactions are. I mean I'm -- is that appropriate? Because I have in my hand -- our team has reviewed the -- gave the first review --

DR. ZIEMER: Well, that could be similar to the early -- it's almost like the early factual

review before it comes to the Board, chance for NIOSH to look at...

DR. MAURO: Yeah.

DR. ZIEMER: Does that seem right to the others?

DR. DEHART: I don't know how far along he is.

DR. MAURO: It's very early. The bottom line is we had two individuals -- we --

DR. ZIEMER: Well, we don't want you -- don't want NIOSH spending a lot of time on things that may go away when --

DR. MAURO: That's true.

DR. ZIEMER: I think you have to use some judgment as to when they need to see that, but I'm just concerned that they have an opportunity before the Board meeting if -- if we get to the Board meeting and NIOSH hasn't had a chance to sort of do whatever review of your findings, then we're back in an awkward position in terms of taking action.

DR. MAURO: I gue-- if I had my 'druthers, the -- sometime the first week in April to deliver our list of findings and observations related to Rev. 1 of Mallinckrodt, have our conference call, our mee-- physical face-to-face meeting

with NIOSH regarding our initial -- not our initial, basically our findings, get feedback and then prepare our report and deliver by the 15th.

DR. ZIEMER: Does that make sense to others? I -- seems reasonable to me.

DR. WADE: More than reasonable.

DR. ZIEMER: Now Jim, you want to comment and -- 'cause it impacts on your group and --

DR. NETON: I guess I would like to clarify -- I believe SC&A's reviewing the entire document. Is that -- is that correct, John? I mean back to 1942?

DR. MAURO: Yes.

DR. NETON: And I'm concerned -- if the time is of the essence here, has not the Board already made a recommendation about the early years at Mallinckrodt? So are we -- are we -- do we really want to expend a lot of effort in SC&A reviewing material that the Board has already decided is not useful for doing dose reconstructions?

DR. ZIEMER: There's only one group at Mallinckrodt that we have to take action on. That's the --

DR. NETON: Well, that's my point, and so do we really -- would it be best served if we focused on the quality issues related to the discussion that's going to occur at the Board meeting rather than have SC&A review the entire document, going back -- and I think the early years were the more problematic, sticky points in the first review.

MR. GRIFFON: I think it's appropriate to priori-- prioritize that.

DR. NETON: That's what I was trying to get -- and you know, at the risk of changing SC&A's direction midstream here, I just bring that up as a -- as a point.

DR. ZIEMER: Well, that's -- we have to take action on that third group. I forget those years, but that -- that clearly needs to be where the focus is.

MR. GRIFFON: John, is that agreeable?

DR. MAURO: (Off microphone) Yeah, we were (unintelligible) --

MR. GRIFFON: Yeah.

DR. MAURO: So as I understand it, the emphasis will be on those 1947 to --

DR. ZIEMER: But -- yeah --

DR. MAURO: -- '54?
DR. WADE: '49.
DR. MAURO: '49, '49. That would be where the emphasis should be.
MR. GRIFFON: Right.
DR. MAURO: That is --
DR. ZIEMER: We don't want you or NIOSH expending a lot of effort on the periods that -- where the decision has already been made.
MR. GRIFFON: Right.
DR. MAURO: Fine.
DR. WADE: Just on Mallinckrodt, you know, the Board did make it -- send its letter to the Secretary. The NIOSH director has prepared his statement consistent with the Board recommendation and that's in the hands of the Secretary now. The clock is --
DR. ZIEMER: Yeah, the clock is going on that.
DR. WADE: -- ticking. I think there might be 15 days left for -- for the Secretary to take action.
DR. ZIEMER: Rich?
MR. ESPINOSA: Just a -- on the recommendations that went from the Board to NIOSH and from NIOSH to the Secretary, is there any way the

Board can receive the information that was sent to the Secretary (unintelligible) --

DR. ZIEMER: Oh, yes.

DR. WADE: Well, I mean we've got to be care-- the -- what you sent to the NIOSH director I think can be shared, if you wish, with the Board clearly.

DR. ZIEMER: But certainly my cover letter, which has the Board's recommendations, there -- there are a lot of trans-- there were attachments, like the transcripts and the -- the handouts that Denise -- that we already have, so you're just talking about the recommendation letter, I believe. Right?

MR. ESPINOSA: Well, I would like everything -- I would like what is sent from the Board to NIOSH, the -- the whole package.

DR. ZIEMER: The whole package, okay. Well, it's the -- it's the letter -- my cover letter. It's like 500 pages of the transcripts -- well, actually it's only the transcripts for the day in which we did the Mallinckrodt thing --

DR. WADE: Uh-huh.

DR. ZIEMER: -- so it's only about -- perhaps -- it's about 250 pages of transcripts. It's

some PowerPoint presentations by Larry. It's the petition itself.

MR. GRIFFON: It's all the materials that we have.

DR. ZIEMER: It's all the materials related to the petition, petition review, the transcripts. It's Denise's presentation, Larry's presentation. It's the -- the transcripts of all the comments by the -- by the public, and then -- and then a summary of our recommendations verbatim as we approved them in the meeting. But yeah, we can -- yeah.

MR. ESPINOSA: I'm not so much worried about the information that we were privileged to at the meeting. It's the information that has came (sic) out that -- going from NIOSH to the Secretary.

DR. ZIEMER: Oh, from NIOSH to the Secretary.

DR. WADE: Now that -- as -- and you can correct me if I'm wrong, Liz, but I think that the -- the NIOSH director's package is considered pre-decisional at this point, so it is not public. It will be public once the -- once the Secretary acts on it.

DR. ZIEMER: Yeah, I don't know what the -- I

presume the Secretary will take our stuff, together with other information from the agency, and send that forward. I think -- I think the only thing I can commit to is what we sent to --

MR. ESPINOSA: Well, stuff that -- yeah, and I understand that. I'm not concerned about the stuff that we're privileged to in the meeting.

DR. ZIEMER: Already, okay.

MR. GRIFFON: So once that's a final decision -- that's a good point, Rich --

MR. ESPINOSA: Yeah.

MR. GRIFFON: -- once that's finalized, we -- we will get a copy of.

DR. WADE: Liz, is that correct? Once the Secretary makes his decision, that entire package will be available to the public.

DR. ZIEMER: To the Board.

MS. HOMOKI-TITUS: Yes.

DR. ZIEMER: Oh, okay. Yeah, that's what you're asking for --

MR. ESPINOSA: That's exactly --

DR. ZIEMER: -- what goes up to the Secretary from NIOSH.

MR. ESPINOSA: That's exactly what I'm asking.

DR. WADE: Well, again, we need to be careful. What goes from the NIOSH director to the Secretary is pre-decisional and not available till the Secretary acts on it.

DR. ZIEMER: Till the Secretary acts on it.

DR. WADE: Then it is available.

DR. ZIEMER: Okay. Okay, any other comments or any other items that we need to consider before our telephone conference meeting?

MR. GRIFFON: Well, just the procedures review, task three. We wanted to --

DR. ZIEMER: Oh, okay.

MR. GRIFFON: -- discuss the process.

DR. ZIEMER: Right, procedures review, task three. Mark, you had a -- did you have a recommendation on that? I'll go ahead and give you the floor on that.

MR. GRIFFON: I don't have any specific information with me. I just think we need to discuss a process going forward on how -- when -- how and when we're going to deal with that as a full Board. And I thought that it might be an appropriate task item for the subcommittee to at least take an initial crack at to --

DR. ZIEMER: Reviewing --
MR. GRIFFON: -- review and --
DR. ZIEMER: -- their report --
MR. GRIFFON: -- provide a summary to the full Board.
DR. ZIEMER: We have the report --
MR. GRIFFON: Right.
DR. ZIEMER: -- from SC&A on the procedures review, and it -- because of the fullness of the agenda last meeting, we simply --
MR. GRIFFON: Yeah.
DR. ZIEMER: -- deferred acting on it, but would you like it to come to the subcommittee first and talk about it? This could even occur at our next -- prior to the next Board meeting.
MR. GRIFFON: That's what I would propose is let's put it on the agenda for the next subcommittee before the full Board meeting --
DR. ZIEMER: Before the full Board meeting.
MR. GRIFFON: -- just one day right before the -- yeah.
DR. ZIEMER: Uh-huh.
MR. GRIFFON: So let's have it on the agenda there.
DR. ZIEMER: Yes. Is that agreeable?

DR. ANDERSON: (Off microphone) Yes, (unintelligible).

DR. ZIEMER: Okay, let's do that and we'll have it then -- have it ready to look at then. Thank you.

Any other items?

DR. WADE: I'd just like to close -- I mean I'm as sensitive, maybe more so than you, on the timing of the Iowa meeting and -- and we'll be watching very, very closely to see where we are. And if at some point it looks like we cannot have a meaningful meeting, then I'll -- then I'll bring that information to you, Paul, and we'll have to discuss what to do. But at this point -- I mean I -- I hold out the hope that we will be able to have a meaningful meeting on the Iowa petition in -- at the end of April in Iowa. And as soon as I'm disabused of that, I'll let you know.

DR. ZIEMER: Thank you. Any other questions, comments? Michael?

MR. GIBSON: If we're not prepared for the Iowa meeting are we going to -- we still have plenty of other work we need to be doing. Are we going to have a meeting somewhere else?

DR. ZIEMER: We're still going to meet. It's -- the issue would be do you -- do you go into the lion's den without anything to feed to the lions.

DR. DEHART: If we go into the lion's den, we're giving them something to feed on.

MR. GRIFFON: Yeah, us.

DR. ZIEMER: Us. Yes, we will definitely have a meeting, so the question -- and Iowa wasn't on -- on the picture for the next meeting until this issue came up on the Iowa petition. We were going to meet in Oak Ridge, actually. I think -- I think Robert was a little disappointed 'cause he was ready to break out his barbecue, so...

MR. GIBSON: I think we also committed, prior to being delayed going to San Francisco, to meet in Washington, which we have not done.

DR. ZIEMER: That's correct. That's correct. Okay, any other items? Motion to adjourn?

UNIDENTIFIED: (Off microphone) Motion to adjourn.

DR. ZIEMER: All in favor will please leave. Thank you.

(Whereupon, the subcommittee adjourned at 12:10 p.m.)

C E R T I F I C A T E OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on March 24 and 25, 2005; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 17th day of April, 2005.

_____

STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER

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