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NATIONAL INSTITUTE FOR OCCUPATIONAL
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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

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DOSE RECONSTRUCTION REVIEW METHODS WORK GROUP

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MONDAY
JUNE 22, 2015

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The Subcommittee convened via teleconference at 10:00 a.m. Eastern Time, James M. Melius, Chairman, presiding.

PRESENT:

JAMES M. MELIUS, Chairman
JOSIE BEACH, Member
DAVID KOTELCHUCK, Member
PAUL L. ZIEMER, Member

ALSO PRESENT:

TED KATZ, Designated Federal Official
TERRIE BARRIE
BOB BARTON, SC&A
KATHY BEHLING, SC&A
RON BUCHANAN, SC&A
NICOLE BRIGGS, SC&A
GRADY CALHOUN, DCAS
ROSE GOGLIOTTI, SC&A
JENNY LIN, HHS
ED MAHER, ORAU Team
JOHN MAURO, SC&A
BETH ROLFES, DCAS
SCOTT SIEBERT, ORAU Team
JOHN STIVER, SC&A

TABLE OF CONTENTS

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

(10:01 a.m.)

MR. KATZ: Let's get started then. This is the Advisory Board on Radiation and Worker Health. It is the Dose Reconstruction Review Methods Work Group. This is an initial meeting.

The agenda for the meeting is posted on the NIOSH website under the Board section scheduling meetings today or this month -- today's date. And there are no materials with that posted. Some of the materials -- the main materials are Privacy Act protected. There is another document we can get on, if someone is interested on the line afterwards, but I don't think it will be governing the discussion.

So, let me check and see that I have my chair and these Board Members on, the Board Members we expected. Let me just check and see for the NIOSH and ORAU teams. Who do we have on the line?

(Roll call.)

Okay, that should take care of it, then.

And let me remind everyone, since there are quite a lot of people on this line, to mute your phones, except for when you are addressing the group. If you don't have a mute button, press *6 to mute your phones and then press *6 again to take yourself off of mute and please don't put the phone on hold at any point.

And Dr. Melius, Jim, it is your agenda.

CHAIRMAN MELIUS: Okay, thanks, Ted, and good morning everybody. Actually, I think, Josie you are up earlier, unless you are still on the east coast.

MEMBER BEACH: No, no, I'm back home.

CHAIRMAN MELIUS: Good, okay.

MEMBER BEACH: Up early.

CHAIRMAN MELIUS: You are all up early. Good. Well, we are glad we could get you up and get you off to an early start.

MEMBER BEACH: Me, too.

CHAIRMAN MELIUS: A couple things on this meeting. One is sort of view this as a sort

of preliminary meeting, get some initial discussion on thoughts and so forth from Board Members what we need to do but also to identify any additional needs for data or other information that would help to shape what we would be recommending to the Board for any changes to our dose reconstruction review methods and approaches that we might use going forward.

I just want to add to this that we all know that reviewing dose reconstructions is a key charge in the legislation made to the Advisory Board but it is an important function and one that we need to do and take very seriously and as part of our efforts in overseeing this entire program.

We also, it is a little different from some of our other Work Groups or Subcommittees. So, number one, is we have a contractor involved at SC&A and to a great extent, their work is dependent on how we implement this, how we assign those, and what recommendations come out from this Work Group to our Board.

So, I really don't think it is going to be -- we are not looking for SC&A to tell us how to do dose reconstruction reviews, given the contractual situation and so forth. So, we may ask them for some technical assistance, in terms of what we are doing but I don't view this as something where our contractor would be telling NIOSH and the Board what methods should be used or what approaches should be used.

And I think, to some extent, this also applies to NIOSH. We have to keep some distance or maybe more distance and independence than we have become accustomed to in some of our other Work Group activities.

So, sort of bear that in mind and I don't think it will be a problem in terms of this Work Group but I think we have to be cognizant of these changes.

In preparing for this Work Group meeting, we had a few documents that we sent around to everybody. Two of them were documents that had

been prepared by SC&A for a Board meeting. I think a couple of Board meetings ago, just sort of summarizing some of the information on the dose reconstruction reviews that hadn't been done, that hadn't been completed through the Subcommittee process. So, those were sets 14 through 21, I believe. A couple of those are blind reviews. So, they are not really sort of the usual ones. But there are a substantial number that have not gone through the process yet.

And then there is another set, another spreadsheet document that provided some other descriptive information on all of the dose reconstruction reviews that have been done to date. Those are the ones that, for those of you that are on the phone, may not be privy to them, are ones that have the Privacy Act information to them.

The other documents that we sent around are some information on the quality assurance/quality control procedures used by ORAU and those were used -- that was based on a document,

an ORAU document I think from 2012 and I think those reflects essentially current methods and so forth.

And then there was also the transcribed notes from a Dose Reconstruction Review Subcommittee meeting, where those were discussed and provided a little bit more background on that.

I will note I actually had Ted hunting, and I was looking also about it, at one point very early on in the work of the Advisory Board, there was actually a Work Group on QA/QC methods that, as best we can tell, we are unable to find a report from that Work Group and I don't believe there was any transcribed meetings of that Work Group. It was before we had gone to the method where all of our Work Group meetings were public and transcribed.

Dr. Ziemer, you and I both served on that. Dr. Andrade was the chair of that. I believe Wanda Munn was also part of that. I don't know if you recall it at all, Paul, but --

MEMBER ZIEMER: Only vaguely and I

think that I would have to go back into some of my early notes to try to remember what we did.

If Tony was chair of that, that would have been the first couple years because he was only with us a year or two, a couple of years.

CHAIRMAN MELIUS: Yes, I found some reference to it in the transcriptions of the actual Board meetings but they are relatively short. And as I recall that, I don't believe that the Work Group issued a report. At that point, NIOSH was working with ORAU to develop QA/QC methods for the dose reconstructions. And so there really was sort of no full plan to review. So, it was more of a set of recommendations made to NIOSH in terms of what kinds of programs should be implemented.

And my guess is that what was implemented ended up being pretty close to what was being recommended and discussed at that point in time. But it was mostly interesting from sort of a historical perspective.

I can remember the Work Group. I could

not remember what we had actually done.

But I think the current ORAU documents provides some background on that and so forth. And then the other documents --

I guess my question to the other Board Members, is there other information that would be helpful in terms of deciding what to recommend in terms of dose reconstruction reviews? Other presentations on QA/QC or on other issues or other -- in terms of what we had done.

MEMBER BEACH: Yes, Jim, this is Josie. I, at this point, don't have anything.

MEMBER KOTELCHUCK: Dave Kotelchuck. I would have been interested in some of the earlier sets, knowing what those categories -- where there were findings. They were categorized by A through F. I have seen them and we started discussing them intensely, as we ended Set 13 and started Set 14.

But I have always wondered if there is a summary of what was found or what was done in 10 through 13. It seemed to me I wasn't aware of their

importance, as a new chair. So, Doug and other people were keeping track of that but I have never seen any summary of it or any report on that. I am curious if there was one or if that data is available.

MEMBER ZIEMER: I can give you a partial answer. This is Paul Ziemer. You know, the initial report to the Secretary on the first dose reconstruction I think summarized the numbers of findings and related data. How much detail there was, in terms of by data sets or whatever, but I think probably it would be worth just pulling that summary, which was in the form of a letter to the Secretary and maybe some attachments.

MEMBER KOTELCHUCK: I did take a look at that and that was interesting but that ends at the end of nine, I believe.

MEMBER ZIEMER: Right.

MEMBER KOTELCHUCK: But 10 through 13 that I have been involved with mostly on the DR Subcommittee, I don't know of any summary of that.

Maybe the SC&A folks might know about that.

MR. KATZ: This is Ted, Dave. I think the issue is that they haven't been tasked yet with producing that summary.

MEMBER KOTELCHUCK: I see. I see.

MR. KATZ: That is part of what the Subcommittee would do in preparing for a report to the Secretary.

MEMBER KOTELCHUCK: Okay, good. That is clarifying.

Was this A through C categorization, when was it initiated? Was it initiated formally in that first report of the first 100 cases that Paul is referring to?

MR. KATZ: The categories for sort of characterizing the findings, that dates back -- I mean it may have been tweaked at some point. I sort of think it has been. But generally, it was created way back before that first report, I mean when we started tracking all these findings.

MEMBER KOTELCHUCK: Okay, so that

means -- fine. So, the report that Paul is referring to, those were the same categories that we are talking about now.

MR. KATZ: I think approximately.

MEMBER KOTELCHUCK: Yes.

MR. KATZ: But there may have been some tweaking at some point. It seems like I remember that there might have been but, generally, they are the same.

MEMBER KOTELCHUCK: Okay, good. Thanks.

MEMBER ZIEMER: Pretty much the same as we have been.

MEMBER KOTELCHUCK: Good.

CHAIRMAN MELIUS: Yes, I think those, as I recall from hearing those reconstruction Subcommittee reports and so forth, I don't think those have changed a great deal. What sort of varied more has been the selection of cases for review over time.

MEMBER KOTELCHUCK: Oh, okay.

CHAIRMAN MELIUS: And I think how that selection has --

MEMBER KOTELCHUCK: Right. I would say that your chair was not aware of the importance of them. I mean it was recorded but I certainly did not pay close attention to them until we got near the end of 13 and I just counted on SC&A folks putting it down.

Okay.

CHAIRMAN MELIUS: I mean I think it is a fair question as to whether going forward that classification has the venues full and does it need to be tweaked or changed.

MEMBER KOTELCHUCK: Right. And I think there has been some discussion in the Subcommittee about that.

CHAIRMAN MELIUS: Yes. Well, I think that is something that this Work Group may want to look into also.

MEMBER KOTELCHUCK: Yes.

CHAIRMAN MELIUS: I mean, I think if we

sort of look at broader ways, we have done these individual dose reconstruction reviews and that has been the main, as we started to say, the main focus, which is to take a sample and review simply how the methodologies, the procedures, and so forth have been applied in that particular case and are there issues or problems found in terms of how that is done and to what extent do those issues or problems change or potentially change the Probability of Causation that would be calculated for that case.

MEMBER KOTELCHUCK: Right.

CHAIRMAN MELIUS: And that has been -- the focus has been a lesser focus on the so-called blind reviews. So, I think we are starting to catch up on those. And then --

MEMBER KOTELCHUCK: We are certainly trying to catch up.

CHAIRMAN MELIUS: Yes. So, there is question when do we -- what is the right mix between different approaches, as well as do we need to

change the specific approaches that we are using? And are there additional things that we should be looking at in some manner as part of that?

And I think underlying all of that, is there some efficiencies to the process that would allow for more, a larger sample, in effect, to be looked at but maybe with less intense scrutiny or involvement of the Board or whatever. There are some different approaches. Does the Board have to be part of the resolution process or does time need to be spent resolving every specific finding or non-finding on that? Lots of different possible mixes of approaches and so forth that could be used.

MEMBER ZIEMER: I think those are good questions. I'm noticing, and I am going to be fighting feedback most of the day, but over the past number of sets, and I guess I am looking now at the spreadsheet for 14 through 21, a lot of cases where there were no findings, I have not, myself, looked to see if there is something common about what we are finding in cases but we are finding certain

types of cases where we never see any findings. If there is a pattern there, it seems to me it would make sense to minimize the number of cases of that type that we look at and focus on the type of cases where seem to be getting more findings. I don't know if SC&A has ever tried to analyze that or already have a feel for that but it seems to me that some efficiencies could be, maybe not efficiencies, but some value could be achieved by focusing on the kind of cases where we tend to see findings.

MEMBER KOTELCHUCK: Uh-huh.

MEMBER ZIEMER: I mean these numbers have changed with no findings -- are we seeing more and more of those? Does that reach up better quality control at the front end of the process like ORAU and NIOSH? I don't know the answer to that.

MEMBER KOTELCHUCK: It does look that way. The earlier, the first reports, had more findings than there were cases. There was at least more than one plus findings per case.

MEMBER ZIEMER: Yes, right.

MEMBER KOTELCHUCK: And here we are talking about 29 findings among 116 cases.

MEMBER ZIEMER: Right, exactly.

MEMBER KOTELCHUCK: That's pretty good.

MEMBER ZIEMER: Yes but are those cases without findings, and there are a lot of them, are they a certain type of case? You know are they locations lines, a certain type of location in a facility? You know what I am saying.

MEMBER KOTELCHUCK: Well, I certainly do not know. It does seem to me that there were fewer findings per case, even than we did with 10 through 13, which we just completed.

So, I'm not sure. I would certainly think it is important to keep, for us and the Subcommittee to try to keep track of that in our minds and try to see if we can characterize it but, for the moment, I would say we have not discussed as a Subcommittee anything like that or that

specific issue, I should say.

CHAIRMAN MELIUS: Yes, no I think the question may be that there are fewer findings now because the program is more mature. There is better documentation of the methods. And, therefore, it is easier for the dose reconstructors to do the dose reconstructions in a way that are well-documented and then therefore for SC&A to confirm that the methodology has been appropriately applied. I mean I think it is good.

But it is something I think you would expect from that. I think it would be, if the other Board Members agree, I think we can ask SC&A to characterize the cases with no findings, compared to those with findings. Then, see if there is any other pattern to that.

MEMBER KOTELCHUCK: I think that would be useful.

CHAIRMAN MELIUS: Paul, do you, and Josie?

MEMBER BEACH: Yes, I agree with that

also.

MEMBER ZIEMER: Well, that was the point I was making. I wasn't sure whether SC&A already sort of knows the answer to that or whether they would have to actually do the analysis.

CHAIRMAN MELIUS: Well, if they know, they are not telling.

MEMBER ZIEMER: Yes.

MS. BEHLING: Excuse me, this is Kathy Behling. As far as I know, we have never looked into analyzing which cases have no findings and why that might be. So, that would have to be something we are tasked to do. As far as I know, we have not done that in the past.

MR. STIVER: This is John. Kathy is right, we haven't actually looked into that aspect yet.

MEMBER ZIEMER: It is quite possible that there isn't a pattern, that it is just a reflection of what the majority of the process, the development of quality control all along the lines.

CHAIRMAN MELIUS: And that may actually show up in the analysis in the sense that for sites that have been better developed or the methods have been better developed, there will be fewer findings than for those that are less developed, so to speak. There may be more.

MEMBER ZIEMER: If that was the case, I would certainly be more comfortable in the Board saying okay, the system is working better. We can reduce the number of cases -- well, we had a goal, I think originally. Remind me, was it two and a half percent?

CHAIRMAN MELIUS: Something like that, yes.

MEMBER BEACH: That's correct.

MEMBER ZIEMER: Which we would have had a hard time reaching but if we needed to reduce that to something realistically a little lower, to maybe two percent or one and a half, I think we would be more comfortable doing it if we have confidence that the system, indeed, is working better.

MEMBER KOTELCHUCK: Yes, I will say that if SC&A is tasked to look at this and they find there is a pattern, if we are talking about saving time, either from SC&A and from NIOSH and from the Subcommittee, it would have to be an unusual finding to tell us don't bother with that case. Right? If we don't spend time in Subcommittee -- we don't spend much time in Subcommittee when there is no findings. Right? I mean it just goes very quickly and we are happy with that. But if we find that there is a pattern, the only way we will save time is if the pattern suggests to us a priori when we are selecting cases to review that we shouldn't even bother with that, which would seem like an unusually strong finding.

MR. CALHOUN: This is Grady. Aren't you actually talking about reducing the overall number that you start with, rather than eliminating some of those that you pick initially?

MEMBER KOTELCHUCK: Well, we could do that, although I should say we are only reviewing

this 10 through 13. I did take a look at it. We are only reviewing one percent of cases in the first report that was put out in 2010, they said oh, we are trying to do two and a half percent and we are nowhere near it and we have to recognize that and decide if there is something that we should either do more.

So, I don't think we are talking about doing fewer. We could, though. I mean we could say that. We don't have the less than one percent reviewed.

MEMBER ZIEMER: We are already well below two and a half percent.

MEMBER KOTELCHUCK: We are at one percent and we took an awfully long time for 10 through 13. And I don't know because I haven't been on the Board long enough to know if we are really slowed down badly because we are not efficient as a Subcommittee. I hope that is not true. I think we are trying to be very efficient.

MS. BEHLING: This is Kathy Behling.

If you don't mind if I could just interject something. And probably everybody already remembers this is just to remind to everyone. When we put out the first hundred cases, that was back at a time where NIOSH was trying to work on cases that were a little bit easier, I guess, that it was pretty obvious as to what maybe the outcome was going to be. And they used, as you are fully aware of, the either maximizing approach where you try to really give them everything that you could regarding doses or a minimizing approach saying we don't even need to calculate all the doses because we already realize that this case will be compensated.

And so actually, when we put out our first report to the secretary, there were only eight, I think less -- or about eight percent of the cases that were best estimates.

Now, with this next set that we have been working on, these are now the best estimate cases and that is what we have been focusing on.

And I think one of the other things that we have to realize is as Jim Melius is saying, the process has had to get more mature and more sophisticated. The work books are very prescriptive. The procedures are much more prescriptive, in order for us to maintain consistency as best we can. So, perhaps that is why we are seeing fewer type of -- fewer findings and probably that is more of a quality assurance type of findings that we are having.

But just to refresh everyone's memory as to what the first hundred cases represent as compared to what these next hundred cases are going to represent, a different group.

MEMBER KOTELCHUCK: Yes, and it was an important finding of those first hundred cases that we should do fewer over estimates and we should do more full findings. And that is what we have been doing.

I mean we are following the conclusions from our first report.

MS. BEHLING: This is Kathy Behling again. I hope I am not overstepping my bounds here.

But also, one of the things that always strikes me also and perhaps I haven't looked at the details of this but the only other suggestion I would make with regard to selecting cases is to select cases from sites that perhaps don't have a real formal protocols, such as initially like one of the examples was this Allied Chemical and Dye that did a blind on. We came up with different approaches because there was, for that particular AWE site, not real clear protocols or technical documents that were available. And so I would also suggest that we look at cases from sites where you may not have as much detail with regard to how the dose reconstructor approaches doing a dose reconstruction for that particular site.

CHAIRMAN MELIUS: I would actually -- this is Jim Melius. I would actually argue against that in the sense that those sites may be more

appropriate for a blind review.

MS. BEHLING: That is a very good point. Yes, I agree.

CHAIRMAN MELIUS: Because there aren't -- and the lack of sort of the documentation, it may be better to then essentially combine sort of the Site Profile review and the actual dose reconstruction review.

MS. BEHLING: Exactly. As I said, the Allied Chemical and Dye was a perfect example.

CHAIRMAN MELIUS: Yes. I think that the other thing to remember in all of this is that as the program -- you know as time has gone by, when there have been a lot of sort of Site Profile findings, procedure findings that have changed methodology and, obviously, Special Exposure Cohort findings that have changed methodologies used, and all those have been going on at sort of different speeds for different sites, with different outcomes.

It may be the luck of the draw but it

seems that every time I end up doing my selected cases for dose reconstruction reviews, there always seem to be one or two SEC cases among those. That is sort of the time lag and what is going on in particular sites and so forth.

But I think in sort of how we report to the Secretary what the findings are, we have to keep in mind that our findings on oversight of the dose reconstruction also include all the procedure reviews, Site Profile reviews and SEC evaluations that the Board looks at. Because those, certainly in the past, have had probably a bigger impact on the program and on sort of dose reconstructions than have the individual dose reconstruction reviews.

Now, I think that is changing as sort of everything matures and time goes by. And we have had trouble sort of integrating all of those in terms of understanding what is happening with the program.

MEMBER ZIEMER: This is Ziemer. I

have just a quick question. I assume that in terms of today's meeting, we are just raising that as a potential issue to be considered. We are not making charter decisions today on yea or nay on how to do that. Right?

CHAIRMAN MELIUS: Correct, yes. All we are doing today is --

MEMBER ZIEMER: An issue to be considered going forward.

CHAIRMAN MELIUS: Yes.

MEMBER ZIEMER: Right.

CHAIRMAN MELIUS: I want to come back to the blind reviews for a second. I found the few that have come through and the findings have been interesting.

One thing that struck me about them is that when there have been discrepancies and my sample size is small, it is only a few cases, but when there have been discrepancies between SC&A's estimate and what NIOSH/ORAU found, it appears to be often due to I will call them undocumented, that

is probably too strong a word, undocumented methodologies, methodologies that aren't clearly documented in a way that, in terms of procedures or have evolved in a way that the methodology is ahead of the documentation. So, the dose reconstructors may know about it but the Board and SC&A may not be aware of those changes.

And I don't think that is necessarily a criticism of what is being done. These are complex sites, many different exposures that we obviously don't want to hold up a dose reconstruction while a particular procedure or something gets documented. And some of these methods are probably not important enough in the bigger scheme of things, in terms of the number of people affected that it requires all the administrative and other effort that goes into various kinds of tic-tac-toe documents are produced.

But it does raise the question of consistency in terms of how those are applied

within the dose reconstruction effort that goes on.

I think that is the sort of consistency, and the consistency comes up in other ways. It comes up in terms of how interview information is used in terms of doing does reconstruction. It may come up in terms of interpretation of work histories and so forth for people that are undergoing dose reconstruction. And I think that is one area that we ought to think about. Are there better approaches that could be used to evaluate that and make sure that there is consistency? Because I think that that is important for people undergoing dose reconstruction, that they and their fellow workers are treated -- would get the same result.

And it is certainly something that we repeatedly hear from in public meetings. In public comment periods, people don't understand why the person they worked with had a Probability of Causation of X and they only got Y, even though they worked side-by-side. And pretty often, that

is due to the organ affected or other technical issues but I do think the consistency is something that our review methods ought to be looking at. And I was curious about how other Board Members felt about that.

MEMBER ZIEMER: Well, it sounds like there is a lack of feelings on that.

I'm sitting here pondering it. I think that makes sense. I don't think I can add to what you said there.

MEMBER BEACH: Yes, I think I am silent in the same respect, Jim. I agree with what you have said. I can't add to it but agree that it is important and consistency is an important part of this.

MEMBER KOTELCHUCK: I agree also. Dave.

There is one observation from the earlier reports that I would be really curious about. And that may even impact on the cases where there are no findings.

There was a recommendation that we take a look at the findings and results for cases where the information is basically provided after the death of the person versus the person who is putting the claim in, giving us the information.

And I have wondered whether, because I assume that if the family puts information in, they have no way of correcting the work records that we find. And I would wonder whether an individual reporting in his or her claim would actually be able to say that no, no, those work records are incorrect because I did this and this. And then one goes back and checks them and hopefully finds --

Put it this way. It seems to be to be an interesting question and may have a lot of bearing or may have some bearing on the reliability of or the consistency of our findings. I am curious about it and I hadn't thought much about that before, until, frankly, I reviewed the report recently.

CHAIRMAN MELIUS: This is Jim. That

issue has come up and we, in other ways, have always been concerned about what happens, for example, when the information with the interview contradicts what is in the work records that are being used or the exposure records that are being used for dose reconstruction and it is problematic.

Particularly problematic are so-called incidents and how those are recorded and often not recorded and very difficult. I think that is one of the sort of consistency issues is how is that type of information interpreted.

The example you used, the deceased claimant, what is the gold standard there is this sort of the problem because we know that very often work records and so forth, where a person is located is not well-documented all the time or consistently documented. And in fact, that is one of the basis for -- or at least the extent of a lot of our Special Exposure Cohort Class Definitions is the fact that the records don't reflect, very often don't reflect everyone who worked within a given part of the

facility. So, we end up extending the Class to a much larger group. And that is the issue we are wrestling with up in Idaho right now.

So, but I do think we have to think about other ways we can get that issue but also at least so that it is being handled in a consistent way.

MEMBER KOTELCHUCK: Are the folks at ORAU or are we aware that a claimant is alive? And if the claimant passes away, are we informed of that?

I mean that would impact -- if people have cancer and it will become fatal or they will die of something else, but they have cancer, there would be a value in making sure that we try to get a CATI report out while the person is still alive. That would be valuable information.

But if we don't know that the person is alive and I certainly don't know from the data that we see, then we may miss out. I mean a person may have six months of life, after they put a claim in. And it would be valuable to speak to the person if

we could, during that period, if we could.

MR. CALHOUN: This is Grady and I can give you a little bit of information on that.

MEMBER KOTELCHUCK: Good.

MR. CALHOUN: When there is a case that is terminal, you know in really bad shape, we actually will get an expedite request from the Department of Labor and we do everything we can to try to make sure that that case is done very quickly. And we do do that, and we get them done quite quickly and we do try to get a hold of the actual claimant or even if one of their authorized reps is willing to help answer questions for them so we can do that quickly and get them a result.

And that happens through a different ways. It can actually be initiated through the Department of Labor when they find out that someone is terminal and it also can come through our ombudsman, Denise Brock, and she actually can get the information and then she will prod the Department of Labor -- I don't use prod as it if

that is a very difficult thing to do but she will say hey, this person is critical or terminal and we need to get that through the system as quick as we can.

And do that. When that happens, we send a request over to ORAU, they put that at the top of their list and they get that done quite quickly. Sometimes we are waiting on Department of Energy records but I'm not going say that that is usually a hassle either because they also get the notification that it is a terminal case and most of the sites are very good about getting us the records quickly.

Now, if somebody dies, obviously, they are no longer an available claimant for that case and we won't know about that unless we find out, primarily, through the Department of Labor.

Now, if somebody dies even after a case is completed, we will allow the new claimant to provide a CATI that we can look at and see if somehow they had information that the actual employee

didn't have that may affect the outcome of the case.

So, those mechanisms are in place. If somebody has died, though, we are very unlikely to find out about it, except for if the case is brought to the attention of Labor by other existing claimants.

MEMBER KOTELCHUCK: Well, what you say is quite reassuring because at the beginning of the process, there is an effort to make sure that terminal cases are looked at quickly. And the issue at the end, toward the end, when the person has died, that is to me, less critical.

So, I am reassured by what you say and glad to hear it.

MR. CALHOUN: And it is not infrequent. I don't have the numbers off the top of my head but I get all of the requests. The expedite requests that I send over to ORAU, I would say that we average more than one or two a week.

MR. MAHER: This is Ed Maher. I confirm that number. And I also point out that on

our side when we get those expedite requests, if the data is in-house and the interview is done, we mandate a five working day turnaround on that claim.

Unfortunately, a lot of these claims are fairly new claims that the dosimetry data has not arrived but the CATI is done right away. Pat's group will go out and do a CATI right away.

MEMBER KOTELCHUCK: Good and that is what is most important.

CHAIRMAN MELIUS: Yes, I should mention -- DOL made a very good effort to address the issue when somebody is terminal or near terminal and has a short time left. We do have to recognize that there are lots of situations where claimants have already died.

MEMBER KOTELCHUCK: Oh, yes.

CHAIRMAN MELIUS: And because of the family members often know very little about what their family members did and certainly not the kind of work detail that might be helpful for their

cases.

MEMBER KOTELCHUCK: Well, that is why getting the CATI quickly is so important. And obviously, folks have thought about it and this is an absolutely reasonable approach.

Okay, my question is answered.

CHAIRMAN MELIUS: Just back to the consistency issue for a second. I mean one of the possibilities of approaching this is doing it one, you start with an individual dose reconstruction but start then selecting cases based on other people with the same situation, basically, that worked roughly the same time period, the same exposures and see how their cases were handled, also, which would be a little different approach in terms of how we are selecting cases that we do now.

MEMBER KOTELCHUCK: Right.

CHAIRMAN MELIUS: One of the other things I wanted to mention earlier but I wanted to bring up, get some other thoughts from Board

Members is right now we, in terms of the dose reconstruction review process, we go through, the Subcommittee goes through basically all of the findings and tries to resolve all of those with NIOSH.

Now, it has been mentioned if it is a negative finding, there is not a lot of time spent on it but there is some. And it takes up some administrative time.

So, one of the thoughts that has been mentioned has been well, let's just focus on positive findings. So, if there are no findings within a data set or a case within a data set being reviewed, that that would not get any further attention or only those findings where there is a discrepancy or question or difference would those be reviewed.

And I am just curious now what the other Board Members thought about that approach. The idea is it would save time but I guess the down side is that it would be maybe both NIOSH and SC&A were

wrong.

MEMBER BEACH: This is Josie.

I think to save time that seems like a reasonable approach. And maybe if you don't want to totally not look at those others, do a smaller sampling of those.

One of the things that I was always concerned with is when you did your reviews and you found cases where you were at a point where the findings were such that it could potentially put the percentage over the mark, and those, to me, are so important to re-look at and there has never been any feedback from those, from my point of view. And now being on the Subcommittee, I will probably see that go through.

MEMBER KOTELCHUCK: Right. How about, Josie, how about -- am I on, by the way?

MEMBER BEACH: Yes.

MEMBER KOTELCHUCK: Okay. How about that we say that if there are no findings but the Probability of Causation exceeds 45 percent, that

we look at it, in case the Subcommittee would see a concern or even possibly an error or whatever?

But that if the PoC is under 45 percent and there is agreement between ORAU and SC&A, we don't bother with it? And that, to me, would work and would take care of the problem of cases that are close.

MEMBER ZIEMER: This is Ziemer. I have two comments on Jim's question. The ones with no findings, I think probably, for efficiency, it makes sense not to take administrative time to review those with the Subcommittee or even in the smaller groups, the peer person groups.

The chance of one of the Board Members, contrary to NIOSH or SC&A, actually finding an error in the dose reconstruction is pretty small because, although we have the individual information on the case and all the details of their case, we don't have all the tools that SC&A works with to actually go through those. So, I don't see that. You know and you say what if they are both

wrong, I don't think that there is much chance that we would find that both were wrong.

MEMBER KOTELCHUCK: Well, I admit that I do not remember any case situation where that has happened. I think it is just instinctively trying to be conservative. Because when we get close, when the cases we review are close, we look very, very carefully.

MEMBER ZIEMER: Well, I know but I am just talking in general about the no findings cases. And if SC&A has no findings on it, then I'm not sure what we gain in terms of the smaller groups going through it before it goes up to the main committee. I certainly think those cases have to be looked at carefully.

One other comment I wanted to make going back to Jim's earlier consistency issue in cases where you have other people in the same categories, to some extent, Jim, we did try to select -- remember we often tried to select cases by cancer category so we would make sure we looked at certain

types of cancers. We also were selecting by categories of how long people worked in facilities. Now, we weren't directly confirming all of those on a one-to-one basis but were trying to make sure we looked at, for example, a sufficient number of certain cancers, sufficient numbers of people who had worked several decades and that sort of thing.

CHAIRMAN MELIUS: This is Jim. I am aware of that. I guess I was thinking of I'm not sure it necessarily identified situations where there are, I will call them, undocumented methods being used or maybe less documented methods. I don't know what the right terminology is. I don't want to disparage what ORAU was doing.

MEMBER ZIEMER: Are you focusing on the ones where we don't have sort of the workbook approach?

CHAIRMAN MELIUS: Yes, correct.

MEMBER ZIEMER: Yes, okay.

CHAIRMAN MELIUS: And there may be other situations of have you interpreted the work

history or whatever, where there is more judgment involved, individual judgment involved.

MEMBER ZIEMER: And don't most of them involve pretty small facilities where we don't have Site Profiles and the number of claims, themselves, are fairly small?

CHAIRMAN MELIUS: Yes.

MEMBER ZIEMER: It may be difficult to try to match up and say okay we have got several cases alike in this facility.

CHAIRMAN MELIUS: Not necessarily. I think they apply in some other situations also. But I do think they do come up there.

And sort of the other counter argument on those small sites is that because there is a lack of information, the dose reconstructions methods are usually pretty simple. It is usually some measure of exposure or does times the number of times worked.

MEMBER ZIEMER: Yes, the number of replies in a limited time period.

CHAIRMAN MELIUS: So, I don't think those are -- I guess I was thinking more in some of the more complicated sites and complicated calculations, where these might come up or where it is based on where work history data becomes more important or interpretation of that.

I mean the classic example is the number of incidents. And we have gone back and forth on that and the number of the sites trying to -- it is not an easy situation to resolve because those aren't always recorded all in the same place or recorded at all and may be based on people's recollections and so forth.

Other thoughts on what any additional information we might --

MEMBER KOTELCHUCK: Well, the one thing I do have a fairly strong feeling about personally is the spending Board time -- spending Subcommittee time on observations as opposed to findings.

And we don't review the observations

but we talk about them. And if I may say, it gives us all an opportunity to chat and we are not going to decide on it anyway. So, sometimes the issues are intellectually interesting and it is easy to talk a little bit about that and spend time but take a look at 14 through 21. We have only 29 findings but we have 60 observations.

Now, we are not going to save an enormous amount of time and we will save time and I think that some Subcommittee Members have felt that we should not spend time on observations and just have ORAU and NIOSH talk with each other about the issues that are raised there.

Once in a while, we find an observation that should have been a finding, I will say. I don't have any sense of what percent of times that happens but it can't be more than ten percent or probably less.

So, we would save time by having not discussing in the Subcommittee observations.

MR. CALHOUN: Dave, this is Grady and

I agree with you because we actually spend time to write responses to those and I really do feel that, on average, we spend as much time discussing each observation as we do a finding.

MEMBER KOTELCHUCK: Well, that is interesting. I mean I don't have that perception. But if you do and if you are writing a report, then we save a lot of time in the whole overall operation, that is for ORAU as well as for the Subcommittee.

I would be in favor of that. I have felt that fairly strongly and more strongly as time goes on and we are trying to move through lots of cases for review.

MEMBER BEACH: Well, Dave, this is Josie. I think we have to be very careful that we aren't putting issues into observation when they really should be findings. And I agree with what you are saying about not spending a lot of time on the observations but I want to make sure we are not missing findings within the observations.

MEMBER KOTELCHUCK: Well, I would estimate, and Grady see what you think just based on our practice recently, I would say less than ten percent of the observations, probably closer to five percent, actually end up being switched to a finding.

MR. CALHOUN: I agree with that. I think it might even be less than that.

MEMBER KOTELCHUCK: Yes, I think it might be.

MS. GOGLIOTTI: This is Rose. I think we have five cases in 10 through 13 that had findings switched or observations switched, if that helps.

MEMBER BEACH: Okay.

MEMBER KOTELCHUCK: Pardon? I missed that.

MS. GOGLIOTTI: I know we have cases that have flipped in sets 10 through 13.

MEMBER KOTELCHUCK: Okay.

MEMBER BEACH: I just think in the

beginning on the onset, we need to be careful what we are listing as findings and observations and maybe err on the side of making them findings, if they are closed. But that is a question.

MEMBER KOTELCHUCK: Yes, although, let me say this. Making them findings doesn't change the compensation, generally. It is having accurate reporting on our process. So, it is not a tragedy to miss them.

The other way is to say let's begin the process of not looking at observations by continuing to look at them for some period of time and then making a later decision. But I do think, Josie, as you come on the Subcommittee, I think you will see that we do spend a fair amount of time on them.

I'm not -- respectfully, I cannot tell Board Members, it is not my role to say I wish you wouldn't chat about that because we have so many more cases to do today.

MEMBER BEACH: No, no, I understand.

MEMBER KOTELCHUCK: And it is very easy to talk about it. And the issues are, as I say, scientifically interesting, the differences of opinion but not so important for compensation.

MR. CALHOUN: This is Grady again. We have got a long track record of categorizing things as findings and observations and I think, generally, that SC&A does a good job of determining what should be a finding and what should be an observation. Typically, it is something that like with any QC audit type process, it is an observation when it is not a violation of a procedure or a document.

I think they have done a really good job of determining which are truly observations and which are findings.

MEMBER KOTELCHUCK: You know what, Jim? If we know that there are five observations that became findings in 10 through 13, Jim, if we could task SC&A to tell us the total number of observations, let's get a percentage on it.

CHAIRMAN MELIUS: Yes, that would be fine.

I would just -- my question, Rose, and I don't know if you have the information on that, but at least my recollection is in the time between SC&A's draft report is then reviewed by individual Board Members, there are situations I can recall in my small sample, where we changed observations to findings and probably vice versa also.

MS. GOGLIOTTI: That is a good point. In the one-to-ones, we often do change findings and observations.

MEMBER ZIEMER: I've had the same experience. This is Ziemer. So, they are findings before they get to the DR Subcommittee.

CHAIRMAN MELIUS: Yes.

MEMBER KOTELCHUCK: I am missing the implication of that.

CHAIRMAN MELIUS: Five may be an underestimate of the number of initial observations that became findings. There is an

earlier step in the process, when the individual Members go through them with SC&A.

MEMBER KOTELCHUCK: Well, that's true --

MS. GOGLIOTTI: It's not uncommon in the beginning.

CHAIRMAN MELIUS: And the opposite happens also but I think it is -- my guess is that it is more common for observations to become findings because the individual Board Members involved in that point in the process think that at least the Subcommittee ought to look at that issue. It may be borderline but it deserves some additional scrutiny.

But if we continue with it, so not to say that that what you are proposing isn't appropriate, Dave, but it is only -- I think we just have to be careful when we think where the evaluation is done and where these changes might take place.

MR. KATZ: Yes, this is Ted. Keep in

mind, at least I haven't heard anyone propose that you cut out that step in the process, the two Board Members meeting. So, that would still be there as sort of a safeguard if you were to follow Dave's proposal.

MEMBER ZIEMER: The observations have already been reviewed by that subset.

MR. KATZ: Right, that's what I meant.

MS. BEHLING: This is Kathy Behling. If I can just -- an example of what we often do on the observations is if there is inconsistencies between maybe procedures and they have these DR notes that the dose reconstructor are often looked at while they are doing the dose reconstruction. And in fact, I am looking at one observation right now that says there was an inconsistency between the Technical Basis Document, an OTIB, and a Savannah River DR note.

And I think a lot of times we are not trying to blame the dose reconstructor for that but we just want to make NIOSH and ORAU aware of that

type of issue.

So, this is our avenue to do that because NIOSH is not involved in that one-on-one process. So, we can't just completely ignore the observations during the Subcommittee meetings, in my mind.

Perhaps, if I could suggest this. If you would like, prior to these meetings, that SC&A actually try and categorize the observations so that to put out front those that we want to make sure get some attention, although they make an observation --

MR. KATZ: Well if I may, Kathy, it is not necessarily an issue of the Dose Reconstruction Subcommittee but it is an issue of whether NIOSH shouldn't be --

MS. BEHLING: Correct.

MR. KATZ: -- observing those observations as well, as opposed to -- yes.

MS. BEHLING: Correct. And other issues come up such as if we see something in the

documentation, DOE documentation that maybe there was some type of an incident. I am looking at another observation here in one of the matrices that says we realize that there was a tritium incident that was never reported. When we looked at the data, it looks as if NIOSH did cover that data. They did assess the data appropriately but there was no mention of that in the dose reconstruction report and, perhaps, that individual will go back and then not recognize that that was assessed or looked at.

So, those are the types of things we put into the observation.

MEMBER KOTELCHUCK: Well, we have, in the past, said why don't the ORAU and SC&A people talk together about the observations before it comes to the Subcommittee and see if you can't resolve them. And then leave it up to you folks to say no, I think we would like the Subcommittee to look at it.

In other words, as we are reviewing the

documents before the meeting, I would feel it would be useful, it seems to me, to have those findings discussed between the two parties and not necessarily brought to the Subcommittee, but only brought those things that you think, in your judgment, in your professional judgments, warrant a look and you would like to bring it before the Subcommittee. Is that something that could be done on a consistent basis?

MR. CALHOUN: Dave, this is Grady. And I believe that we do typically include responses on our matrices for the observations. Now, getting together and having a pre-meeting meeting, I hate to commit to that right now just because of all the work that goes into this already. That seems like -- I don't know if the payoff would be -- if that would involve less time or more time overall.

MEMBER KOTELCHUCK: Okay, so your feeling is it is a pre-meeting meeting. Well, if it is, then that is a problem.

But you know, I am just looking ahead to 14 to 21 and we are going to go through 29 findings and 60 observations. And I tell you, we spend time on those. Everybody who is on the Subcommittee knows that and are sitting in on the Subcommittee meetings. We do spend a fair amount of time on it, even if the Subcommittee does not make a decision.

And Jim, it is also true that the Subcommittee has turned back observations into findings.

CHAIRMAN MELIUS: Sure. Maybe we should have a 30-second timer going on when we have discussion of observations or something.

MEMBER KOTELCHUCK: Well, you know, a 30-second timer could be the chair being instructed to suggest to the Subcommittee Members that let's keep this short. And many times, that just happens of its own accord. But I assure you, many times, it does not. And I respect the opinions and voices of every single person on the line. So, I am not

going to tell somebody please, could you -- you know, I am not going to call time on them. At least I feel it is inappropriate; whereas, I wish sometimes they would finish quickly. But it just seems to me not in my purview as chair to do that.

And seriously, that is an internal timer.

MEMBER ZIEMER: Well, maybe the Subcommittee can agree on some ground rules on how to handle those.

MEMBER KOTELCHUCK: Yes.

MEMBER ZIEMER: You know you don't have to impose them as the chair, per se, but maybe everybody could agree we won't spend more than X minutes on each of these.

MEMBER KOTELCHUCK: Well, why don't we do that? I mean we certainly can have a discussion.

MEMBER ZIEMER: We're not going to solve that today.

CHAIRMAN MELIUS: Yes, we are not going

to solve it today. I think some of the other Subcommittee Members want to weigh in on that one.

MEMBER KOTELCHUCK: I think so. So, we will have a conversation about that. We have a meeting in a couple of days and I can add that on the agenda and just have a brief discussion about that.

But I think that is probably all we should talk about, in terms of that issue.

MR. KATZ: This is Ted. Just before you close the conversation, let me just say my observation from the sidelines. I think everyone should keep in mind is just the general dictum or whatever you call it of not letting the perfect get in the way of the good.

I think you are going to find, at the end of the day, that you are going to have to make some sort of coarse, meaning rough, imperfect adjustments to your process that are fairly substantial that you are really going to ratchet up the pace, no matter what, even if, for example,

you manage observation discussions to a certain amount of time period or whatever, I think.

You know because we have tried very hard to ratchet up the pace over the last few years and really, I think, have been unsuccessful that way. And so, I think you are really going to have to think of some significant innovations to be able to -- if you are going to want to change the pace of how these reviews get done.

Anyway, I just wanted to share that observation.

MEMBER KOTELCHUCK: Okay.

CHAIRMAN MELIUS: Well, I can throw out one possibility. Maybe we should have two Dose Reconstruction Review Subcommittees. I mean one possibility is you put more resources into -- well you have both sort of Board resources and --

MR. KATZ: Yes, I agree with that. That absolutely would make a significant difference.

CHAIRMAN MELIUS: Yes.

MEMBER KOTELCHUCK: Oh, yes.

CHAIRMAN MELIUS: And that would mean appropriate increase, proportional increase in sort of SC&A resources and NIOSH/ORAU resources.

MR. KATZ: Right, exactly. And so NIOSH would have to be able to adjust its other resources accordingly to keep that pace.

CHAIRMAN MELIUS: Yes.

MR. CALHOUN: Yes, we basically have the same guys doing that and I don't know, that is basically doubling our resources on that. And you know then we are going to get into the hard decision of okay, what don't you want us to do.

I think that the discussions earlier about fine tuning what we look at and even the suggestion of reducing the overall number of cases we review, especially given the current findings, is the way to go.

You know, I appreciate trying to get through things quicker but golly, our guys are pretty slammed, as far as their workload.

CHAIRMAN MELIUS: You know I still think it is something that shouldn't be off the table entirely.

MR. CALHOUN: I agree with that but it will certainly not go without some impact on other parts of our program.

CHAIRMAN MELIUS: Or you will need some more resources for your program.

MR. CALHOUN: We have a fixed price contract.

CHAIRMAN MELIUS: I'm not saying that is what we are recommending but it should be a consideration, if we are going to get -- if the Board feels that is the only way or is part of the way of getting -- meeting its mandate to review your dose reconstructions.

MS. BEHLING: This is Kathy Behling. Dr. Melius, I am not sure if you were aware but I think that at the last Dose Reconstruction Subcommittee meeting, we also discussed perhaps setting a year in advance trying to establish when

the next meetings would be. And I don't know how soon they could be but like every six weeks, is that a possibility, knowing the fact that I guess you have put out a Federal Register notice? But that might also be one option we want to continue to pursue is establishing the meetings, let's say a year in advance, so that we could do them, perhaps more frequently.

MEMBER KOTELCHUCK: That's a possibility, certainly, and a reasonable one.

In a way that is more determined by what the intrinsic workload is for SC&A and ORAU. If you folks think that you could give us materials and write-ups to do that, we certainly could.

Although, I will say we have tried to have it in six week lumps and it starts to put pressure on our Subcommittee Members, who have other -- particularly, who have other job responsibilities. Some of us who are retired, it is easier to schedule more quickly.

And at times, when we have tried to

schedule a short time between meetings, we find that the meetings end up being canceled for lack of a quorum because somebody has some responsibility in their regular work. So, that is a problem.

Now, one could enlarge the committee. Rather than the double the committee, one could enlarge the committee but that adds to the workload of all the Board Members, which may be possible, it may not be.

MR. KATZ: This is Ted. I think the only way you can get more frequency is as Dr. Melius and you just mentioned, you would have to expand the Subcommittee and have, in effect, sort of a Subcommittee Part A and B or something, because it is not getting easier to schedule.

In scheduling, the main pitfall in scheduling has been actually Member availability. So, you will have to go that route, if you want to get more frequency.

CHAIRMAN MELIUS: One other issue,

this is away from efficiency, to another sort of different issue in terms of our overall approach, does anybody have any thoughts on sort of case selection? Do we need to modify the approach that we used for selecting the cases to be reviewed?

And I think, in essence, we have done that incrementally with each set. So, it is not like it has been a static approach since day one or even since set 13 or whatever. I think at any point in time, it keeps changing. Josie or Dave, do you have any thoughts on that?

MEMBER KOTELCHUCK: Well, here is a case where Members who have been on the Subcommittee longer than I have might weigh in. We have, more or less, used the same approach in 10 through 13 throughout and it seems adequate to me. I have not been -- I haven't seen problems with it. I would be interested if others did and there may be other opinions. But, personally, I don't see it is in need of fixing. We usually are able to select them and agree upon the selections pretty

quickly and that is also true for blind cases. Our selection processes seem to work reasonably well within the Committee.

Would ORAU folks, if there is anything -- would you have any observation about that?

MR. CALHOUN: This is Grady. You know we have been focusing on 45 to 52 percent cases. And certainly those are the most likely to cause a change in compensation decision, if there is a significant mistake made. That limits us, though, to about 2.3 percent of all of the cases we have in hand. That is all that falls between 45 and 52 percent. So, you know that is one thing out there.

So, certainly from your standpoint, it is a much more detailed review. All of the other ones are going to involve over estimate or underestimate. So, you are almost sharpening a marshmallow at that point.

The biggest problem with the thing we are looking now at is if the numbers that we can come up that fall within that range but we haven't

had a real lack of cases to review. That is why we are having this meeting. So, that is my only input on that.

And you know I feel good about the fact that very, very, very few cases have flipped compensability. Actually, we went back and looked and there was one that flipped a long time ago and that is when we were intentionally overestimating cases when we didn't have TBDs and that was at the very beginning of the project and that was one case. And that certainly wasn't a mistake. That was a directive given by our management at the time.

The second was a Rocky Flats case that went from comp to non-comp because there was no NDRP data provided by the Department of Energy. And again, that really wasn't a mistake on our part. That was information that wasn't given to us by the Department of Energy.

And through this entire process, there is only one other case that is currently being looked at where the compensability flipped. And

that has always been our prime focus, is to make sure that the appropriate compensation decision was given out.

And given the current range that you are looking at, those are the ones most likely to flip.

MEMBER KOTELCHUCK: Right, I agree.

CHAIRMAN MELIUS: And I think we have pretty much covered the universe of sites, at least to the extent that there are dose reconstructions being done at those sites.

MR. KATZ: So, one thing, if you want in your tasking analysis from SC&A, you may want to look at sort of productivity by site of findings, if you want to call it productivity. But look at where you are finding more problematic cases and you may want to focus in that respect down the road, in terms of case selection. By method or site or whatever but whatever it turns out might be the more problematic types of cases.

MEMBER KOTELCHUCK: Yes, possibly. Although, having reviewed those cases, if 2.3

percent of the cases are 45 to 52, we are basically selecting half of those cases because we are reviewing one percent of all cases.

So, when we go through the selection from that 2.3 percent, we are not going to choose two from the same site or we might. But we try to spread them out with major sites and smaller sites, in terms of claims.

So, I don't think we can assess or I don't think we are failing in productivity by site, if you will or need improvement.

MR. KATZ: I guess what I am trying to say is I mean we have good distribution across the sites from our selections.

MEMBER KOTELCHUCK: Right.

MR. KATZ: What I was trying to say is if, upon analysis, we find that there are sites where we really don't have many substantial important findings repeatedly, presumably because the dose reconstructions there just simply, whether they are simpler or better done, or what

have you, the source documents are better for those and approaches but if there are sites where they are not producing many findings of concern, then maybe those are sites that you don't focus on and you put more of your emphasis on the sites with more of the findings. That is what I was trying to say.

MEMBER KOTELCHUCK: I tell you, that will move us into more reviews of smaller sites, which have fewer claims, and also much less information.

MR. KATZ: Well no, I mean the simpler sites generally don't have so many findings because they are easier dose reconstructions to do.

MEMBER KOTELCHUCK: You may be right.

MR. KATZ: It's the big sites like SRS that are complicated that tend to be the most productive, I think. We will have to see. I don't know. Again, someone has to do the analysis.

MEMBER KOTELCHUCK: Yes. Other folks?

CHAIRMAN MELIUS: Do we want to have

that analysis done? Would that be -- I mean I don't think it would be hard to do based on, I would say do it for 14 through 21. We have already tasked SC&A to do some work on that.

MEMBER KOTELCHUCK: Well, I mean while I am not terribly persuaded that that is going to yield anything, I also certainly don't object and if it isn't a major task, I would be open to what other folks here suggest.

So, if other people would like to do it, I am open. And particularly, if it is not difficult to carry out. It is not a major task.

MEMBER ZIEMER: Well, we were actually asking SC&A, I think, to tell us where the findings were coming from, whether it is a type of case or a location. It seems to me, it is all part of the same analysis.

MEMBER KOTELCHUCK: Yes, okay. All right, we could do that. And I see that wouldn't be difficult.

MEMBER ZIEMER: To me, it is just a

sorting issue.

MEMBER KOTELCHUCK: Yes, it is. And I am looking at we have the facilities mentioned in each of the cases 14 through 21. Let's take a look at it, then.

CHAIRMAN MELIUS: What we don't have, and I think is harder to get at is sort of the dose reconstruction method involved and that is sort of below the surface a little bit more.

MEMBER KOTELCHUCK: Yes, but we are really looking at full internal and external.

CHAIRMAN MELIUS: Yes.

MR. CALHOUN: Jim, this is Grady and we certainly can give you a list of those sites for which we do not have a published TBD but for which we do have completed DRs.

CHAIRMAN MELIUS: That would be useful to have, Grady, I think, just to make sure we understand the universe.

I know in the SEC, I continually get surprised by sites that you come up with, that I

had forgotten about.

Any other? So, we are tasking SC&A to just do some additional analysis. Is that doable in the next 30 days, before the July meeting?

MS. GOGLIOTTI: Absolutely. We should have no problem doing that.

CHAIRMAN MELIUS: Thank you. Yes, if you can figure it out and sort of give us a date on that and whether we might want a short Work Group meeting before the July Board meeting, just to discuss that and do that.

And then what I was thinking of doing was doing sort of, I will call it, an early draft set of recommendations. It wouldn't be recommendations but just sort of trying to correlate different approaches that we might use in terms of recommendations, not that they would necessarily be what we would finally recommend to the Board but that it would at least provide the basis of discussion with the Board at the July meeting. And I will share that with everybody.

MEMBER KOTELCHUCK: That would be fine.

CHAIRMAN MELIUS: Yes, I don't want anybody to get heartburn or something. In fact, just for Grady, I will propose four Dose Reconstruction Review Subcommittees or something at this point.

MEMBER KOTELCHUCK: Okay.

CHAIRMAN MELIUS: And then you can tell Stu and give him a headache, Grady, about it.

MR. CALHOUN: Okay.

CHAIRMAN MELIUS: Anything else?

MEMBER KOTELCHUCK: Well, let me ask you. I mean all joking aside, if we did want to enlarge the number of Subcommittees, is there any requirement in terms of this Board that there be exactly the number of Members that we have or is that really getting beyond the scope of this discussion?

MR. KATZ: No, that's fine. I can address that. There is not a requirement, a

numeric requirement or limit for a Subcommittee's membership, although at minimum would be three. But so you could establish multiple Subcommittees that are small, if that is what you are talking about, Dave.

MEMBER KOTELCHUCK: Well, that is one possibility. The other is enlarging the Subcommittee. But I am actually talking about Presidential appointments to the Board.

MR. KATZ: Well, okay -- that is another ballpark.

MEMBER KOTELCHUCK: That is another ballpark?

MR. KATZ: Yes, that is another ballpark.

MEMBER KOTELCHUCK: Let's leave it then. Okay.

CHAIRMAN MELIUS: I think it is just important that both the Work Group and the Board be thinking what do we need to be doing in terms of dose reconstruction reviews to meet our mandate

and be able to, with some confidence, reach conclusions about the quality of the dose reconstructions that are being done.

MEMBER KOTELCHUCK: Right.

CHAIRMAN MELIUS: If we only have the resources or the capability, whatever you want to call it, of doing one review, or one dose reconstruction per year, that is obviously not, I don't think any of us would argue that that is adequate.

But what the percentage is, is it one percent, two percent, or three percent, whatever? I mean I think we have to think how do we combine different approaches that would provide with some confidence be able to reach conclusions.

MEMBER KOTELCHUCK: Right.

CHAIRMAN MELIUS: And I think now that the program has matured and documentation has improved, that that number changes. That percentage changes maybe we have to think of how we can use different approaches.

And we have been doing targeted approaches already in terms of our dose reconstruction reviews. We don't do a random sample. We are taking a number out of -- we are targeting reports, ones which we think are more likely to have findings that could impact the overall program.

So, maybe that reduces the need for such a large number of reviews. At the same time we have to make sure we are not missing ones and that we are not neglecting some area that is or could be problematic.

MEMBER KOTELCHUCK: Let me ask -- as chair of the Subcommittee now, let me ask -- it is my impression for the last couple of years that the progress of the Subcommittee was the thing slowing us down and that NIOSH and SC&A were ahead of us, in terms of if we could have reviewed things more rapidly. Is that observation shared by others?

MR. KATZ: This is Ted.

MEMBER KOTELCHUCK: Yes, fine, Ted.

MR. KATZ: My observation is it has been a combined result. It is not singularly because of the Subcommittee not being able to meet more frequently the pace. The pace has also been controlled by how much NIOSH can do and by SC&A's performance in producing stuff for a meeting and I think everyone has kept the pace at what it has been but not just because of our problems with meeting frequency.

MR. CALHOUN: Dave, this is Grady. I honestly believe that we have been doing much better since you have taken over. I think we are getting through cases much quicker. I know we do have to do it faster than that, even, but to me, it seems like the meetings are moving along quicker and the Committee Members are much more okay with closing out findings.

MEMBER KOTELCHUCK: Well that is, in both cases, good to hear. Well fine, okay.

So, I should modify my sense of observation. I guess I am looking at from the

Subcommittee, primarily, and worrying that we are not moving fast enough and it doesn't sound like folks have the impression that we are the gear that is not moving. But, good.

Okay, thanks.

CHAIRMAN MELIUS: Any other thoughts or comments from Board Members?

If not, I think we can, end the Work Group call, when I hear from SC&A about when they will get this next small report to us, I will let everybody know and see if we can work out a time for a short Work Group call before the Board meeting.

MEMBER KOTELCHUCK: Good.

MEMBER ZIEMER: I have one question before we sign off. This is Ziemer again.

CHAIRMAN MELIUS: Yes.

MEMBER ZIEMER: One of the documents that you distributed, Jim, was the ORAU Team Dose Reconstruction Quality Assurance Control Program Inspection. I know that the Dose Reconstruction

Subcommittee vetted that pretty thoroughly because you included the minutes to that.

CHAIRMAN MELIUS: Right.

MEMBER ZIEMER: I just wanted to ask, maybe ask Dave, do you feel like you pretty well have a good handle on that and was the Dose Reconstruction Subcommittee pretty satisfied with that ORAU document and their processes?

MEMBER KOTELCHUCK: I am. I am satisfied. That was a good discussion. Let me put it, as one Subcommittee Member, I am satisfied.

I think the fact that we are having fewer findings overall suggests to me that things are integrating well. And I feel like we have a handle on what ORAU is doing and what ORAU is doing is satisfying both SC&A and the Committee. So, I am satisfied, certainly.

I certainly have not heard from other Board Members that they wanted to open that discussion up. It was a very good discussion.

MEMBER ZIEMER: Okay, I just wanted to

make sure that everybody was satisfied with -- it appeared that you were but it wasn't clear to me that there was sort of a bottom line where you sort of gave it your best -- you put it that way.

MEMBER KOTELCHUCK: Yes, well that -- I wasn't chair at the time we had that discussion.

MEMBER ZIEMER: And I guess since they are a contractor to NIOSH but we certainly need to be aware of how they are going about their quality assurance because it does impact on how we think about and do our reviews to the dose reconstructions as well.

MEMBER KOTELCHUCK: Yes.

MEMBER ZIEMER: If the Subcommittee was comfortable, if I can use that word, or satisfied with what was being done.

MEMBER KOTELCHUCK: I certainly remember that meeting. And I think we ended up in good basic agreement and it was very helpful to me, as a Board Member at that time -- as a Subcommittee Member at that time, to hear that discussion and

I came away clear to me what they were doing. And what they were doing seemed good and appropriate.

So, I think that Subcommittee was satisfied at the end of that discussion and we have never had anybody since raise the issue should we go back over it again or look at it more carefully. So, I think we are okay.

MEMBER ZIEMER: Good, thank you.

CHAIRMAN MELIUS: Paul, if I could just add, after I couldn't find our earlier Work Group report, as I said, Ted provided that information to me. And I read through both the transcript and the procedure and I was impressed. I thought it was good.

I think again, short of auditing the implementation, I don't think we can say more than that. But I think it is a very good approach that they are using. It is thoughtful and I think it many ways it is as well as can be done in this type of program. But I guess, at the same time, I think we have to understand, as I said earlier, this is

a complex number of sites and lots of issues, not all of which can be documented and covered. And so we are relying on individual dose reconstructors to do this and they are being supervised and so forth, but they are making judgments of what is going on.

So, there are always going to be -- I think we always have to have concerns about are those being done consistently. Are they being done appropriately in terms of making those judgments and resulting consultations?

One of the individual dose reconstruction reviews I was involved in recently, there was a situation where a person had moved from one site to another and the dose reconstructor did, I thought, an excellent job of addressing that move and how it affected the person's exposure. It was the kind of situation that there would never be a procedure on that because it is probably pretty uncommon for a person to make that kind of a move in that kind of a situation. And I thought they

did very well.

But again, it was totally based on them recognizing the situation, the potential exposure, dose implications of what might happen in interpreting their exposure monitoring for an internal dose from two different sites and using two different approaches. And again, it is not something that is going to be captured.

So, again, I think it is something we need to keep in mind looking at this. But at the same time, looking at what we found early on in the program which was essentially before the QA/QC program had even been implemented, it was being thought through at that time, this was back in 2004 or so. That, I think, what was missing then has been addressed.

And what was missing then was, essentially, the program was just starting. So, it wasn't necessarily anybody's thought.

MEMBER ZIEMER: No, I agree. I think it is a very good document. Actually, I was a

little curious about the closing paragraph of the ORAU document, which says that the ORAU team is reevaluating their current list of comment categories looking to those categories similar to those utilized by SC&A. So, I think there is an interesting effort there.

I'm just wondering, I'm not sure what the date is on this document but maybe someone from ORAU can tell us how that is going and where they are going on that. The document I am looking from ORAU, this is dated, right? I don't know --

CHAIRMAN MELIUS: I think it is electronically dated about 2012, at least the version I have.

MEMBER ZIEMER: Yes, so, I am wondering if there are any changes since then that we are not aware of.

MR. SIEBERT: This is Scott Siebert with the ORAU team. Yes, we actually did update our categories from that time frame of August of 2012. We tried to make it more consistent, as I

said. It has been so long ago, that I don't recall exactly the outcome, how close they actually were to the SC&A ones but we did take those into account and we adjusted our categories and we have been using them. We updated it quite a while ago. We actually had more discussion on this topic, if I remember in the November 2012 Subcommittee meeting as well.

MEMBER ZIEMER: Okay. Is there any document which says, and maybe we can have a copy of it.

MR. SIEBERT: Just a copy of the categories that we used?

MEMBER ZIEMER: Well, either that or has this document be revised, the one I am looking at? Is this an official document or is it just a descriptive summary? ORAU Dose Reconstruction Quality Assurance Quality Control Program, is that an official ORAU document?

MR. SIEBERT: That was only a document that was put together for the Dose Reconstruction

Subcommittee. It is not a standard document for ORAU team.

MEMBER ZIEMER: It's a report. Okay, I'm with you. I thought maybe this was an official document.

So, that answers my question. I am fine. Thanks.

MS. BEHLING: Dr. Melius, this is Kathy Behling. I was hoping before we ended the conversation here today if we could just revisit one additional issue regarding expediting the issues resolutions process. Do we have time to do that?

CHAIRMAN MELIUS: Yes, if you want to bring it up. Depends what the issue is.

MS. BEHLING: Okay. In the past, we did recommend that perhaps it would be helpful for the Subcommittee if we categorized not only the findings by site but within the site, if we attempted to lay out for the Subcommittee those findings that we think they could quickly close or

that could be readily be closed and then those findings that may require some additional discussion. And if we were able to get some documentation into the Subcommittee's hands, well in advance or at least a week or so, let's say, in advance of the meeting and have all the Subcommittee Members look at those and then we could maybe more quickly go through those findings or observations that we think would be readily closed.

And we did a little bit of background on this. For example, we looked at like the Oak Ridge, Paducah, Portsmouth, and Savannah River sites and I believe we looked at about three or four, maybe the 13th through the 15th or 16th set and analyzed all of the findings for those four sites and we can to the conclusion that there were 16 observations and 32 findings that we could, perhaps lay out for the Subcommittee, saying these look as if they could be closed rather quickly and there were only five findings that appeared to us

is going to require a more extended discussion.

I am just wondering if that is still something that would be on the table. Is it still something that you would want to consider that would benefit the Subcommittee?

CHAIRMAN MELIUS: Well, I think it is more in the purview of the Subcommittee but I think it would be useful if you could share that analysis with this Work Group and with the Subcommittee.

MEMBER KOTELCHUCK: Yes, it would be.

CHAIRMAN MELIUS: It would be hard to talk about it in the abstract.

MEMBER KOTELCHUCK: Of course, in fact we talked about it and thought that was a good idea and let's try to do it at one of our previous meetings.

But right now, we are going to be looking at, coming up Thursday, we are going to be looking at blind reviews, primarily. And that is most helpful when we get to going over cases again, regular cases, as opposed to blind reviews.

So, I thought we basically agreed that we would like to do that as a Subcommittee. And I think it will -- I was kind of looking forward to it happening for this meeting and then I realized it is not appropriate because we are going to do blind reviews.

But let's figure that, hopefully, either at this next meeting or the meeting after it, we will finish what has been done on the blind reviews and then go back to 14 to 21. And then at that point, by all means, we would love the advance notice and let's see how it works. Let's see if it helps us.

MS. BEHLING: And this week, our Dose Reconstruction Subcommittee meeting is Wednesday the 24th?

MEMBER KOTELCHUCK: Yes, at 10:30, by the way, not 10:00.

MS. BEHLING: Okay, I thought I heard Thursday but I thought it was Wednesday. Thank you.

MEMBER KOTELCHUCK: No, no, it is -- it is --

MR. KATZ: It's Wednesday.

MEMBER KOTELCHUCK: It is Wednesday.

MR. KATZ: Correct.

MEMBER KOTELCHUCK: Yes, at 10:30.

MS. BEHLING: Yes, thank you.

MEMBER KOTELCHUCK: Okay, I look forward to speaking with you then.

CHAIRMAN MELIUS: Anything else? If not, thank you all and I will be in communication.

MEMBER KOTELCHUCK: Very good.

CHAIRMAN MELIUS: Okay, thanks.

MEMBER KOTELCHUCK: Thank you.

MR. KATZ: Thank you, everybody.

(Whereupon, the above-entitled matter went off the record at 11:58 a.m.)

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2