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

# SUBCOMMITTEE FOR DOSE RECONSTRUCTION AND 

SITE PROFILE REVIEWS

```
The verbatim transcript of the 11th Meeting of the Subcommittee for Dose Reconstruction and Site Profile Reviews held at the Marriott Metro Center, Washington, D.C., on June 14, 2006.
```


## CONTENTS

June 14, 2006
WELCOME AND OPENING COMMENTS ..... 8
DR. PAUL ZIEMER, CHAIR
DR. LEWIS WADE, DESIGNATED FEDERAL OFFICIAL
SELECTION OF $6^{\text {TH }}$ ROUND OF INDIVIDUAL DOSE RECONSTRUCTIONS
DR. PAUL ZIEMER, CHAIR ..... 11
COMPLETE REVIEW OF $2^{\text {ND }}$ AND $3^{\text {RD }}$ ROUNDS OF INDIVIDUAL ..... 84
DOSE RECONSTRUCTION CASES
MR. MARK GRIFFON, WORKING GROUP CHAIR
MR. STUART HINNEFELD, NIOSH
COMPLETE PROCEDURES UPDATE ..... 102
MR. MARK GRIFFON, WORKING GROUP CHAIR
MR. STUART HINNEFELD, NIOSH
DISCUSSION OF SUBCOMMITTEES AND WORKING GROUPS ..... 116
COURT REPORTER'S CERTIFICATE ..... 130

## TRANSCRIPT LEGEND

The following transcript contains quoted material. Such material is reproduced as read or spoken.

In the following transcript: a dash (--) indicates an unintentional or purposeful interruption of a sentence. An ellipsis (. . .) indicates halting speech or an unfinished sentence in dialogue or omission(s) of word(s) when reading written material.
-- (sic) denotes an incorrect usage or pronunciation of a word which is transcribed in its original form as reported.
-- (phonetically) indicates a phonetic spelling of the word if no confirmation of the correct spelling is available.
-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.
-- "*" denotes a spelling based on phonetics, without reference available.
-- (inaudible)/ (unintelligible) signifies speaker failure, usually failure to use a microphone.

## PARTICIPANTS

(By Group, in Alphabetical Order)

BOARD MEMBERS

CHAIR
ZIEMER, Paul L., Ph.D.
Professor Emeritus
School of Health Sciences
Purdue University
Lafayette, Indiana

EXECUTIVE SECRETARY
WADE, Lewis, Ph.D.
Senior Science Advisor
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Washington, DC

## MEMBERSHIP

CLAWSON, Bradley
Senior Operator, Nuclear Fuel Handling
Idaho National Engineering \& Environmental Laboratory

DeHART, Roy Lynch, M.D., M.P.H.
Director
The Vanderbilt Center for Occupational and Environmental
Medicine
Professor of Medicine
Nashville, Tennessee

GIBSON, Michael H.
President
Paper, Allied-Industrial, Chemical, and Energy Union Local 5-4200
Miamisburg, Ohio

GRIFFON, Mark A. President
Creative Pollution Solutions, Inc.
Salem, New Hampshire

LOCKEY, James, M.D.
Professor, Department of Environmental Health
College of Medicine, University of Cincinnati

MUNN, Wanda I.
Senior Nuclear Engineer (Retired)
Richland, Washington

POSTON, John W., Sr., B.S., M.S., Ph.D.
Professor, Texas A\&M University
College Station, Texas

PRESLEY, Robert $W$.
Special Projects Engineer
BWXT Y12 National Security Complex
Clinton, Tennessee

ROESSLER, Genevieve S., Ph.D.
Professor Emeritus
University of Florida
Elysian, Minnesota

STAFF

LASHAWN SHIELDS, Committee Management Specialist, NIOSH STEVEN RAY GREEN, Certified Merit Court Reporter

SIGNED-IN AUDIENCE PARTICIPANTS

AL-NABULSI, ISAF, NCRP
BEHLING, HANS, SC\&A
BEHLING, KATHY, SC\&A
BISTLINE, ROBERT W., SC\&A
BOWE, DAVID, SPFPA LOCAL 66 PORTS
BROEHM, JASON, CDC WASHINGTON OFFICE
CHANG, C C, HHS
CHANLOW, MICHAEL, WASHINGTON POST
COHEN, SANFORD, SC\&A
DEHART, JULIA, OHA INC.
ELLIOTT, LARRY, NIOSH/OCAS
FITZGERALD, JOSEPH, SC\&A
FUORTES, LAURENCE, UNIV OF IOWA
GRANDE, JAMES, DOL
HAUGHLY, MINDI, NIOSH
HEARL, FRANK, NIOSH
HINNEFELD, STUART, NIOSH
HOWARD, JOHN, NIOSH
HOWELL, EMILY, HHS
ISHAK, LAURIE, NIOSH
JOSEPH, TIMOTHY, ORAUT
KENOYER, JUDSON, DADE MOELLER \& ASSOCS.
KIMPAN, KATE, ORAU
KOTSCH, JEFF, DOL
LEWIS, JOHN, OMBUDSMAN
LEWIS, MARK, ATL
MAKHIJANI, ARJUN, SC\&A
MAURO, JOHN, SC\&A
MCCOY, EILEEN, OMBUDSMAN'S OFFICE
MCDOUGALL, VERNON, ATL
MCKEEL, DANIEL, MD, SO. IL NUCLEAR WORKERS
MILLER, RELADE P., NIOSH
MILLER, RICHARD, GAP
MOSIER, ROBERTA, DOL
NESVET, JEFF, DOL
PARKER, TREY, OMBUDSMAN
PLATNER, JAMES, CPWR
POTTER, HERMAN, USW
PRESLEY, LOUISE S., WIFE OF ROBERT PRESLEY
RAFKY, MICHAEL, CDC

RAMSPOTT, JOHN, SO. IL NUCLEAR WORKERS SAMPSON, BOB, GAO
SCHAEFFER, D. MICHAEL, SAIC
SCHAUER, DAVID A., NCRP
STEPHENS, VICKIE, IAM CREST
TENFORDE, THOMAS S., NCRP
TURCIC, PETE, DOL
WALBURN, JEFF, SPFPA LOCAL 66 PORTS

## PROCEEDINGS

(9:15 a.m.)

## WELCOME AND OPENING COMMENTS

## DR. PAUL ZIEMER, CHAIR

DR. ZIEMER: Good morning, everyone. I'd like to call the meeting to order. This is the meeting of the Subcommittee for Dose Reconstruction of the Advisory Board on Radiation and Worker Health. The subcommittee will meet all morning, and then following lunch today the full Board will convene for the regular meeting. We're pleased to be in Washington, D.C. It's always a nice town to visit. For me it's an exciting town to visit since $I$ lived here on $a$ couple of different occasions.

I want to remind all of you -- Board members, staffers, visitors -- to register your attendance. There's a registration book in the corridor. Also, individuals who would like to participate in the public comment period later today, please sign up for that, as well. As is usual we have many pieces of paper and stacks of paper on the table in the rear,
including today's agenda and a lot of documents relating to today's discussions, so please avail yourselves of those materials as you see fit.

Let me call on our Designated Federal Official, Dr. Lew Wade, to make any additional opening comments he may wish to make.

DR. WADE: Well, thank you, Paul -- only to welcome you all to the meeting. And I'm personally thrilled to see that three new Board members have joined us, and I'd certainly like to thank them for their willingness to serve. But I'd remiss if I didn't also then thank the continuing Board members who have continued to serve. This is -- this is tough duty, and we ask these people to do a great deal in a very compressed time frame. And I've never been associated with a Board who has performed better or taken their responsibilities more seriously. So I'd like to thank the continuing members and welcome the incoming members. I bring you regards from Secretary Leavitt; from the Director of CDC, Dr. Gerberding; and from John Howard, the NIOSH Director. John should be with us through the week, so if
anyone has a burning issue to deal with John, I'll be sure to point him out to you and you can take your issue to him.

Because we're in Washington we could be well visited by some Senators and Representatives. We're expecting Senator Clinton to visit us tomorrow and make comments. We -- we look forward to those visits with -- with the understanding of all if members do come we'll try and accommodate them as quickly as we can because they do have extremely busy schedules. So again, welcome to all of you and thank particularly the Board for its service.

DR. zIEMER: Thank you very much, and the reference to three new members -- we recognize that those three individuals, Brad Clawson and Dr. Lockey and Dr. Poston, actually have sort of been aboard since January. But finally all the paperwork $I$ guess is cleared so that they can be fully -- declared fully functioning members of the Board. They -- they actually were pretty fully functioning before, but at least we now recognize them as fully functioning, and we're pleased to have them with us.

SELECTION OF $6^{\text {TH }}$ ROUND OF INDIVIDUAL DOSE
RECONSTRUCTIONS, DR. PAUL ZIEMER, CHAIR
The first item for the subcommittee is to select the next round of individual dose reconstructions. You may recall we've been selecting sets of 20 for review. Initially review by the Board's contractor, SC\&A. And then individual reviews involving our Board members, and then finally developing matrices of findings for resolution.

At our last meeting we selected the 5 th round, which at that time $I$ think was actually 20 -was it 24 cases that we -- or 25 I guess we -DR. WADE: Twenty-five.

DR. ZIEMER: -- we selected, and we may -we'll talk about those a little bit later this morning as well because we do need to assign Board review teams for those cases. We have yet to do that.

Now I want to identify for us first the materials we have to help us with the 6 th round selection, and I'm going to -- is Stu Hinnefeld -- Stu, good morning. Would you help us identify the materials that are at -- at our places so everybody's clear on what they have
and how to interpret the...
MR. HINNEFELD: All right. Good morning, everybody. The materials that we have for selection are very similar to the ones that we used in Denver to select the 5 th case (sic). The first page is -- has the very, very small print, looks something like this with very small font -- is the statistical summary of the first 80 cases that were selected. And I didn't add the -- the 5 th set to this because I wasn't really sure if we were doing 25 or 22 or 20, so I wasn't really sure which ones were actually going to go forward, so it's -- we still only have the first 80.

DR. ZIEMER: These are the first four sets. MR. HINNEFELD: Yes. And one additional piece of information has been added, and that is the probability of causation outcome for each of the 80 cases. That appears on the second page of this clipped-together package in the small print, about in the middle of the page. All of the probability of causation, this POC list is what it's called. All the probability of causation outcomes are listed and they're sorted in ascending order. And then
immediately to the left of that it's the statistical breakdown by per-- by ten per-- by decade percents is presented as well. So that additional piece of information has been added to the sheet since the Denver meeting.

DR. ZIEMER: Stu, the item on the very last page is POC values?

MR. HINNEFELD: Correct, the very last page is the continuation of the 80 POC. It just goes too long, so --

DR. ZIEMER: Oh, I see.
MR. HINNEFELD: -- it's just continued on the last page.

DR. ZIEMER: And the -- the total count of 86 is because there are some --

MR. HINNEFELD: There's some cases --
DR. ZIEMER: -- multiple site --
MR. HINNEFELD: Yes.

DR. ZIEMER: -- cases.
MR. HINNEFELD: Yes.
DR. ZIEMER: Everybody understand? There's -there's actually 80 cases --

MR. HINNEFELD: Right.
DR. ZIEMER: -- but they represent, in a sense, 86 sites. Is that a way -- correct way to
interpret that?
MR. HINNEFELD: Can -- yes, I think. There -there are --

DR. ZIEMER: Well, not 86 sites, but 86 --
MR. HINNEFELD: -- there are -- there are 80
cases. There are some of those cases that had either --

DR. ZIEMER: Multiple sites.
MR. HINNEFELD: -- two or three sites --
DR. ZIEMER: So they show up multiple times.
MR. HINNEFELD: -- and they were tallied in all those --

DR. ZIEMER: Right.
MR. HINNEFELD: -- sites' column, so that's why it's 86. The same thing occurs in the cancer grouping, which is the next one to the right. That's actually the IREP model grouping. There are 84 there because four of these cases had dual cancer -- cancer models run. So the same reasoning there, and they were tallied in both of the -- in both of those models.

DR. ZIEMER: So if -- if we lay pages one and two side by side, is it -- do they line up? Is that correct?

MR. HINNEFELD: Yes, they do. Although the
information on two is -- the information on two is largely independent of the left-hand column on page one. It's largely independent of whether you put them side by side or not. DR. ZIEMER: Yeah. Yeah, it's a completely different grouping.

MR. HINNEFELD: Yeah.
DR. ZIEMER: And then the third page is part of the greater than 30 years worked grouping.

MR. HINNEFELD: It's part of the probability of causation, the third page is -- is --

DR. ZIEMER: Yeah, for greater than 30. Is that correct?

MR. HINNEFELD: It's actually -- no, it goes right under the POC list.

DR. WADE: It's this list continued.
DR. ZIEMER: Yeah.
MR. HINNEFELD: That's all the -- that's all the POC outcomes in the 80 selected cases, if $I$ have the same page three as you.

DR. ZIEMER: Yeah. What -- what I was -- did you say that those numbers don't relate to the left-hand column on page two? I was assuming the 21 cases that you're listing here are all of these numbers. Is that correct, or not?

These -- are these POC numbers --
MR. GRIFFON: For all 80 cases, I think.
MR. HINNEFELD: This -- this is for -- this is all the 80 cases.

DR. ZIEMER: Yeah, but are they -- are they related -- this is just a --

MR. GRIFFON: A tally.
DR. ZIEMER: Okay, just a tally.
DR. WADE: Stands alone.
DR. ZIEMER: Gotcha. Gotcha, okay. Thank you. That's clear.

Okay, Board members, any questions on that document? Everybody clear on what we have there?
(No responses)

Okay, proceed, Stu.
MR. HINNEFELD: Okay. I'm not sure what order these are in your packet, but there are two long listings of case -- cases for potential selection that look essentially like this. One is a set of randomly-selected cases from the available pool for review. That means cases that have been finally adjudicated. And the other is the list of all the cases that were done using what we call a full internal and
external dose reconstruction, or complete dose reconstruction. So -- and so, you know, if that -- if there's interest in focusing on those rather than one of the efficiency method techniques, then that would be the list to work from. So -- and that's all of them. There's no random selection associated with that. It's all the ones available for review. And again $I$ remind you that that designation of full internal and external is -- that database field is populated by the approving $H P$ by, you know, a mouse click. And so there's some possibilities for some misses, and $I$ won't vouch that every one's 100 percent exact. I mean there may be an overestimate in there that the HP clicked the wrong -- it's a selection -it's a menu selection.

DR. ZIEMER: How many cases are on this list that you randomly selected most recently?

MR. HINNEFELD: The randomly selected list is 100. Well, I'm sorry. It started as 100. We then shared the list with the Department of Labor. They identified a few that have action since the final adjudication and so they potentially may be reopened, and so we took
those off the list.
DR. ZIEMER: So it's about 100 cases.
MR. HINNEFELD: About 100 .
MR. GRIFFON: I see -- I see 200 on this.
MR. HINNEFELD: 200? Okay. Well, I forgot what I asked them. It would be 200 then -200.

MR. GRIFFON: Well, wait a minute --
MR. HINNEFELD: Well, now wait a minute.
MR. GRIFFON: No, no, no, that's not --
MR. HINNEFELD: That was the full.
MR. GRIFFON: That's the full and --
UNIDENTIFIED: (Off microphone)
(Unintelligible) make sure --
MR. GRIFFON: That's not right.
MR. HINNEFELD: The highest selection number should tell you how many we -- are in the random.

MR. GRIFFON: The number at the end there.
MR. HINNEFELD: 200 - - it is 200.
MS . MUNN: 201 .
MR. PRESLEY: 201. It's 200 and 201.
DR. ZIEMER: Okay. And then the third one is the --

MR. HINNEFELD: The final -- the final piece
there is the cases that were selected in Denver. Now at the Board's request we've added to all these lists a new data field which is the date approved. You asked that -- you would like to know how old are these cases, how long ago were these approved, and so we've added the date approved not only to the 25 that were -25 or 22 -- the original selection by my memory, there were 25 originally selected. The Board went through the 25 and removed three because they were similar to others that were selected, so the actual selection was 22. I have all 25 on here. The three that I call were deselected by the Board at that same meeting are asterisked in the right-hand column. So it -- I think 22 were selected, but all 25 are presented here.

The date approved is included on that. The date approved is also on the bigger lists as well. That's a new -- that data field has not been there before.

DR. ZIEMER: Okay. This group, this -- that's basically the 5 th round cases, the Denver --

MR. HINNEFELD: Yes, that's the 5th round cases.

DR. ZIEMER: And we'll need to assign review teams for these. And Board -- or committee members, what we'll do, and we'll do this after a bit, we can -- we can take 20 of these if you wish and make the assignments, and either carry the other two across or we can leave those other two in and just do a 22 load. It depends on -- on how the assignments work out, I think. DR. WADE: Stu, just so we're grounded in the overall task at hand, on the small font table to the far left, you show projected cases and you show the middle column the available. That represents the -- what -- what does that number represent?

MR. HINNEFELD: That is the percentage -- was it two percent or two and a half percent that was originally decided would be reviewed, or originally considered to be reviewed. It's that percentage times the population from that site which is available for review. In other words that's finally adjudicated.

DR. WADE: Okay. So if the Board decides it wants to review two and a half percent of the cases, then two and a half percent of the Savannah River cases currently at hand would
represent 35 .
MR. HINNEFELD: Correct.
DR. WADE: At this point we've done 14.
MR. HINNEFELD: Yes.
DR. WADE: Okay. So that gives the Board a sense of --

MR. HINNEFELD: Fourteen out of the first 80.
Remember they're -- the ones on the 5 th
selection are not added in there yet.
DR. ZIEMER: Right. Okay.
MR. GRIFFON: Stu, are the-- are the 22 cases that are in the 5th set, were they excluded from these other --

MR. HINNEFELD: Yes.
MR. GRIFFON: -- lists?
MR. HINNEFELD: Yes.
MR. GRIFFON: Okay.
DR. WADE: Stu, since you've looked at this more than anybody else, is there anything else that jumps out at you from the information you've given us that the Board should take note of?

MR. HINNEFELD: Well, I think not. I know -some things that occurred to me as $I$ put these together is there's a lot of interest in
evaluating cases that are close to the compensation point. And -- and there were some early-on thought that we should really focus on -- on that -- that population, and that's a relatively small population. So in thinking that we want to do 20 percent or 40 percent of our reviews in a particular compensation band of say 40 to 50 or 30 to 50 may not be attainable because it's not a large population. So that has occurred to me. I don't know of anything else that comes to mind.

DR. ZIEMER: Stu, another question. Referring to the random selections table and the full internal and external table, the selection IDs -- let me take -- for example, the first one on internal/external, selection ID 2006-06-000-whatever number of zeroes --3 , I assume that refers to the June '06 selection, it would be --

MR. HINNEFELD: Yes.
DR. ZIEMER: -- number three.
MR. HINNEFELD: Yes.
DR. ZIEMER: How does that relate to the other table 003?

MR. HINNEFELD: It's just -- the number of
digits keeps them separate. It just -- they -the numbers are just assigned as they were selected, or as they were pulled up in -- that -- those numbers don't really mean anything and they don't correlate between the same.

DR. ZIEMER: It's clearly not the same case.
I'm sort of --
MR. HINNEFELD: No.
DR. ZIEMER: -- asking do you -- so you
selected these full ones randomly, but from a list of full internal/external. Is that correct?

MR. HINNEFELD: The -- the one that's in -that's labeled full internal and external is all of the ones available for review that are in full internal and external review, so that's all of them.

DR. ZIEMER: That's all of them. Okay.
MR. HINNEFELD: That's all of them.
DR. ZIEMER: And --
MR. HINNEFELD: The ones that are random
selections are randomly selected from --
DR. ZIEMER: Well --
MR. HINNEFELD: -- the available cases.
DR. ZIEMER: -- the other way to ask it then
is, some of these may appear on the random selection list, but we -- we don't necessarily know that.

MR. HINNEFELD: Yes. Anything on the random -DR. ZIEMER: (Unintelligible)

MR. HINNEFELD: Yes, anything on the random selection list that is identified under dose estimation type as a full internal and external should be on the other list.

DR. ZIEMER: Okay. But it will have a different ID number.

MR. HINNEFELD: It'll have a different ID number here, yes.

DR. ZIEMER: Yeah. So the only way to really figure out if it were the same one would be to look at the cancer type and the facility.

MR. HINNEFELD: You could probably sort it out, I think. It may be just easier not to -- to try not to select --

DR. ZIEMER: Right.
MR. HINNEFELD: -- a full internal and external
--
DR. ZIEMER: Right.
MR. HINNEFELD: -- from the random list.
DR. ZIEMER: Right. Board members, we've been
trying to concentrate on the full
internal/external and perhaps that would be a place to start.

Good morning, Wanda. I didn't see you when we started, but --

MS. MUNN: Good morning.
DR. ZIEMER: -- welcome, you get the --
MS. MUNN: That's because I wasn't here --
DR. ZIEMER: -- first comment here.
MS. MUNN: -- when you started. My apologies.
DR. WADE: So noted.
MS. MUNN: I unfortunately did not print out the interesting set of graphs that Kathy Behling sent out to us just yesterday or the day before. That was very informative to me in terms of where we were standing, as opposed to where we might -- where our goals are. If --

DR. ZIEMER: I haven't seen this myself.
DR. WADE: I can get copies for you.
DR. ZIEMER: Is Kathy here this morning?
MR. GRIFFON: They're on their way, I think.
DR. ZIEMER: They're on their way?
MR. GRIFFON: Yeah.
DR. ZIEMER: Yeah.
DR. WADE: You want me to get those copied?

MS. MUNN: Do we have copies of that around, John? Do you -- might --

DR. ZIEMER: John Mauro.
MS. MUNN: -- we have one?
DR. MAURO: No, that -- they went out on the 11th hour, as you know, electronically. We were aware that unfortunately some of you folks may be in transit when it went out. Kathy and Hans will be here probably within a half hour and they will be bringing hard copies of that material. And she also has a set of slides. So I don't have them with me, either.

MS. MUNN: Okay, fine. The only reason I brought it up is because $I$ found it very instructive in terms of where we've been already --

DR. WADE: So I --
MS. MUNN: -- and --
DR. WADE: They're bringing copies so I don't need to get this copied?

DR. MAURO: Yes. They're bringing electronic and hard copy. Whether they're bringing a large number -- a stack for hand out to everyone, $I$-- I just don't know, so that -we'll see when they come. That was -- that was
something that was decided at the -- at the -sort of like the 11 th hour might be useful, and it apparently was.

DR. ZIEMER: If -- if it would be helpful, maybe what we could do until they get here is go ahead and do the teams on the 5 th round, Lew. I think we need to do that anyway, and then we could come back to this once we have the document. Would that be agreeable? Just change the order here a little bit.

DR. WADE: Before we get to that, I think that's a wonderful suggestion, I'll also say to the subcommittee and will to the Board again -I always want you to keep in mind the overall task at hand. And you know, your goal of two and a half percent of the cases has a target population of 240 , and that number escalates each time. We're doing 60 a year. At the end of the day on Friday I'll ask you to give me permission to get a cost estimate from SC\&A for next year's work, and $I$ gue-- at that point I'd ask you to think about do we want to keep the number at 60 , do we want a slightly bigger number than 60. I know I keep talking about that with you. I think it's important that we
keep that in front of our deliberations and I just pose it now and ask you to think about it. On Friday we'll revisit that issue.

MS. MUNN: Dr. Lockey has a copy of what was sent out, if the Chair might perhaps find that more useful than $I$ at this time.

DR. WADE: Yeah, I have.
DR. ZIEMER: Well, we have another copy here, but I think it'd be helpful for everyone to have a copy as we go into the selection process. So if we could defer that for the moment and go ahead and do -- we'll take out the 5th round summary from the Denver meeting and let me ask -- let's do some self-identity of teams.

Dr. DeHart, who else was on your team?
DR. DEHART: Gen was working with us.
DR. ZIEMER: Roessler, okay. And Brad, you weren't assigned to a team, I don't believe, initially.

MR. CLAWSON: Not at that time, no.
DR. ZIEMER: Not at that time. Gibson and
Ziemer were a team, and --
MR. PRESLEY: Presley and Anderson.
DR. ZIEMER: -- Presley, and so we need to
replace Anderson, and -- And when -- so okay, Griffon -- we need to replace someone there for Leon. Okay. Who was with Melius? Wanda, were you --

MS. MUNN: I was.
DR. ZIEMER: Uh-huh, and -- okay, we have
Roessler already. Okay, perhaps -- perhaps, Brad, you could work with Mark.

MR. CLAWSON: That'd be great.
DR. ZIEMER: And then maybe Poston, you could work with Presley.

DR. POSTON: Sure.
MR. PRESLEY: I'd be delighted.
DR. ZIEMER: And you'd have the same conflicts of interest so it would work out.

MR. PRESLEY: That's great.
MS. MUNN: That'd be great.
DR. POSTON: That'd be great.
DR. ZIEMER: And -- who's missing?
DR. WADE: Dr. Lockey.
DR. ZIEMER: Lockey. That's right, we have an odd number now.

DR. WADE: Not an odd.
DR. ZIEMER: Oh, no -- no, Gibson's with me.
DR. WADE: You could make a three or you could
make a one.
DR. ZIEMER: Probably a -- probably a three is better so that we have a mix of folks reviewing. Let's see, Jim, why don't I put you on my team. I need all the help $I$ can get.

DR. LOCKEY: Very good.
DR. ZIEMER: Okay.
DR. WADE: If I might speak briefly to
conflicts of interest, as you know, if a Board member is conflicted with regard to a particular site, then we exclude them from being assigned as a principal reviewer on the site. In Dr. Poston's case, Dr. Poston has a son and a daughter who have done dose reconstructions within the program, and his waiver would have him excluded from reviewing dose reconstructions that either his son or his daughter had done. It'll take us a while to find that out once you pick the cases, so that's a check we'll be going through and we might have to make some adjustments.

DR. ZIEMER: We need a new column on here that indicates --

DR. WADE: No, we don't.
DR. ZIEMER: -- that J. Poston did the --

DR. WADE: We don't need a new column, but we'll just -- we'll work that out.

DR. ZIEMER: Okay. Thank you. Okay, so we'll move down through the list here. Basically what we've done in the past is just gone through them in order and if there's a conflict of interest, we'll skip that case and move on to the next one.

Let's see, we have -- basically have five teams, so we need four cases per team. DeHart/Roessler, are there any conflicts on these first four cases for you folks?

DR. DEHART: None here.
DR. ZIEMER: Now Board members, if you -- this is somewhat arbitrary. I suppose if there's a case that one of you sees that you really have a longing to review and are not conflicted on, we can -- we can do a swap. But otherwise I'll just take them in order.

The next four cases are Portsmouth, Elk River, Feed Materials and Hanford.

MS. MUNN: I can't do that one.
DR. ZIEMER: No, this would be Lockey, Gibson and Ziemer.

DR. LOCKEY: I can't do Portsmouth.

DR. ZIEMER: Okay.
MR. PRESLEY: We can do them.
DR. ZIEMER: Presley/Poston can do those?
MR. PRESLEY: Right.
DR. ZIEMER: Okay, we'll give you those next
four. That would be --
MR. PRESLEY: Portsmouth, Elk River, Feed
Materials and Hanford.
DR. ZIEMER: Right, it'd be 09, 10, 20 and 43.
Correct?
DR. DEHART: We -- 09, no. That's in the first four.

DR. WADE: The first four you --
DR. ROESSLER: No, we have 09.
MR. PRESLEY: 10, 20 --
DR. ZIEMER: I'm in the wrong -- yeah, I missed -- I --

DR. WADE: $10,20,43,44$.
DR. ZIEMER: It'd be 10, 20,43 and 44 , I'm sorry.

DR. WADE: Well, let me add a complication. If you -- if you notice in the far right, there's an asterisk next to 06. That's one that you had decided not to do from the original list of 25, so you need to draw a line through 06 .

DR. ZIEMER: Oh, yeah, yeah, yeah. I see. DR. WADE: And a line through 73.

DR. DEHART: That moves us down one.
DR. WADE: And a line through 120. So now you're --

DR. ZIEMER: Okay, so let's back up.
DeHart/Roessler, can you also do --
DR. DEHART: Portsmouth?
DR. ZIEMER: -- the Portsmouth case?
DR. POSTON: How about giving them Oak Ridge?
MR. PRESLEY: Yeah, we could give them Oak
Ridge 'cause John and $I$ can't do that.
DR. DEHART: What?
MR. PRESLEY: Oak Ridge National Lab.
DR. ZIEMER: 049 .
DR. DEHART: I can't do Oak Ridge.
DR. ZIEMER: Roy can't do Oak Ridge, either.
DR. WADE: No one can do that.
DR. ROESSLER: How about Lawrence Livermore?
DR. DEHART: That's fine.
DR. ROESSLER: But that doesn't help --
DR. ZIEMER: Hang on here. I'm going back to
DeHart/Roessler -- 02, 08, okay on 09 so far --
UNIDENTIFIED: Okay, that's four.
DR. ZIEMER: $02,08,09$ - -

MS. MUNN: That's three.
DR. ZIEMER: And are you okay on 10?
DR. DEHART: Yeah.
DR. ROESSLER: Yeah.
DR. ZIEMER: Okay. Now Presley/Poston -- Elk River, 20; Feed Materials, 43; Hanford, 44 -and you can't do Oak Ridge, but you could do Lawrence Livermore. Correct?

DR. POSTON: Yeah, I think so.
MR. PRESLEY: Uh-huh.
DR. ZIEMER: Okay. I can't do Oak Ridge, either, so -- Mark, can --

MR. GRIFFON: Yeah.
DR. ZIEMER: You can do Oak Ridge?
MR. GRIFFON: Uh-huh.
DR. ZIEMER: Okay, so we'll pick up Oak Ridge, which is 49, with Griffon/Clawson. Then 7-- am I at 78? I think so.

MR. CLAWSON: Yes.
DR. ZIEMER: 78 is MIT, you're okay on that, I think. And 85 and 101.

DR. WADE: That's Griffon/Clawson?
DR. ZIEMER: Okay. Now we've covered
everything on the first page so far, $I$ believe. Now let's -- top of the second page, I'm going
to try Lockey/Gibson/Ziemer again. Bridgeport Brass is 110. I think we're okay there. Savannah River, we should be okay, 115; Pantex, 117; and Superior Steel, 119.

Now we look at Melius/Munn -- 120 is off the list, right?

DR. WADE: Uh-huh.
MS. MUNN: Correct.
DR. ZIEMER: Feed Materials is 154; Linde, 157; Savannah River, 181; and Pinellas, 188.

DR. WADE: Who's doing these four?
DR. ZIEMER: Melius/Munn. Not assigned then would be the last two, which are 199 and 211, and we can carry those forward as the start list of the next 20 , if that's agreeable. Any objection? So these'll be the assignments. This doesn't require full Board action so we'll -- we'll report it out officially to the full Board, but those'll be the assignments. John Mauro, $I$ don't know if you got that list, but if you didn't, double-check with us afterwards and we'll make sure that your folks have it because you will have to coordinate with those team members as the review is carried out. Where are you on the --

DR. MAURO: I've been trying to keep notes but I did not keep track. But typically what happens is Larry Elliott follows this up with a formal letter where he lays out officially the allocations. We've -- we've had -- that -that's been in the --

DR. ZIEMER: Right, and we'll each get our case files on each of these --

DR. MAURO: At that -- that -- that same --
DR. ZIEMER: -- for review.
DR. MAURO: -- time, so -- and -- and in -- in addition -- and very often we certainly could proceed and -- so when that -- usually what happens is we're already working on the cases, and then that letter would come in with the assignments, so --

DR. ZIEMER: Right.
DR. MAURO: -- it's not urgent that we have that right away.

DR. WADE: I would ask Stu to -- to see that what needs to happen, happens so that the materials are transmitted to $S C \& A$ to begin and the letter -- you know, on the assignments as soon after that as possible.

DR. MAURO: We appreciate that. Thank you.

DR. ZIEMER: John, while you're at the mike, do you have a rough idea of when you would expect SC\&A to begin reviewing this set of cases and -- so that we have some idea of -- timetablewise, are we talking about, you know, July/August and --

DR. MAURO: We'll begin immediately, as soon as the -- the next set of $C D s$ comes in, we're -we're waiting -- we're in the gate, so to speak, waiting.

DR. ZIEMER: Okay.
DR. MAURO: We have people ready and we'll hit them as soon as they come in. Our experience is it does taken two, sometimes as much as three months to go through the process of a set of 20 to move out the product, so what $I$ think the reality of the situation is is we will certainly be able to clear the 5th set, and I -- and I had mentioned this to Lew -- we have the budget, by the way, we're well within budget. We have the resources to take care of all six sets. But $I$ think we may be requesting -- I'll be sending a letter out -- an extension. Instead of having delivered them by September 30th, which is the end of the period
of performance for this round, we may request a no-cost extension for maybe another two months so that we can do the 6th set. I think it's going to be difficult for us to do the two full sets of 20 in a three-month time period.

DR. ZIEMER: Yeah. Well, hopefully we'll at least have the initial comments on this set by the time of our next meeting.

DR. MAURO: Yes. Yes. In fact the --
typically what happens is, after we go through the reviews we get the draft reports, we get them out to the teams, we have our telephone conversation and then we move the product out.

DR. ZIEMER: Okay.
DR. MAURO: And I think we probably -- by -now the next meeting would be in --

DR. WADE: September?
DR. MAURO: Oh, absolutely, yeah. We -- by September I would say -- let's say the next set of -- the 5 th set comes through within a week, this -- for the --

DR. ZIEMER: Hopefully we'll have the matrix by then with your comments and --

DR. MAURO: Yeah.
DR. ZIEMER: -- maybe even some initial NIOSH
comments.
DR. MAURO: Yeah, I think we could be well down the road on -- on the 5th set. I'm more concerned about the 6th set. That's --

DR. ZIEMER: Right.
DR. MAURO: Yeah.
DR. ZIEMER: Thank you.
DR. WADE: John, while you're up, just -- since there are new -- new members involved in the process, could you just let the new members know what they could expect in terms of contact from you and how this would proceed?

DR. MAURO: Yeah, the -- the approach we use is we -- we first receive the set of 20 cases electronically. We basically have a team of three to four individuals who will then review -- basically reproduce all the doses, every line item in the IREP code. In the back of every one of these cases you'll see there is the actual input for -- that goes into IREP. We check every number and write a report. There's a standard format we use, and we identify areas of deficiencies. A draft for each one of the 20 will be prepared. What we'll do is for each team we will forward
to you -- as soon as we have those drafts ready, we will forward to you copies of that material so that -- and it'll only be the cases that you've been assigned so -- so you won't have a big pile, just the cases. Then Hans and Kathy Behling will give you a call and arrange for a time that's convenient to spend an hour or two going over each case and -fundamentally, conceptually, what are the issues that we've uncovered -- and discuss them with you. Certainly receive some feedback from you regarding your -- the findings and the rationale behind those findings.

Once we get through that process, then we go ahead and formally finish up the product, which then becomes this very thick 3-ring binder that contains all 20 cases, reflecting your comments from the dial-- from the dialogue. That really begins -- that's really the beginning of a process of closeout.

With that thick document comes a matrix that -whereby -- there's a scorecard for each case whereby the findings are delineated. And at that point in the process is when the working group meetings begin whereby we go through the
matrix, which is a summary of the findings of the 20 cases, with the designated working group and we sta-- we go through the process of closing them out. We work very closely with the working group and with stu. Stu has been taking the lead all along. I presume he will continue. And -- and we work through each finding, and then there's -- at the -- NIOSH basically -- in this matrix -- you can almost see, issue number one, brief summary of what the issue is for that particular case -NIOSH's response saying well, we agree -there's really a -- several categories of response that -- NIOSH may agree and -- and say we will take some action to fix that. Or we agree, but no action's going to be taken. And there's a series of proposed actions that NIOSH will take. And $I$ guess the final column in the matrix would be the Board's final resolution on these matters.

That takes quite some time. That'll probably move us well into next fiscal year and -- but in the end we get a -- get to a point where we have effectively resolved every one of the issues that's -- are in the matrix. And then
from there $I$ guess a report goes on to -- to HHS regarding the findings.

DR. ZIEMER: Right.
DR. MAURO: I'm not quite sure, are we -- the first set that we reviewed, I'm not quite -has that actually got to the point where the -the letter of completion has moved out, I guess up to HHS, on findings or --

DR. ZIEMER: The letter has not gone to HHS.
We do have an approved letter, however.
DR. MAURO: You have appro-- okay. So it's a pretty protracted process, but $I$-- but -- so I guess the next one moving through the system will be two, then three, then four. So as you can imagine, by the time we reach, you know, five and six it'll be down the road a bit.

DR. ZIEMER: Right. Thank you very much, John.
DR. LOCKEY: Paul, could I ask a question?
DR. ZIEMER: You bet.
DR. LOCKEY: We're mandated to do 20 -- 40 -60 a year. Is that correct, 60 reviews a year? Is that --

DR. ZIEMER: That's about the level we are at. DR. WADE: We're not mandated. That's -DR. ZIEMER: No.

DR. WADE: -- the Board's decision.
DR. LOCKEY: And have we been -- have you been doing that?

MS. MUNN: We did 40 last --
DR. ZIEMER: I think this will -- this -- this set will bring us to 60 for this year, I believe, won't it? I -- I don't recall.

DR. MAURO: We have -- 80 for -- the first year we did 60. We are in the 4 th group and the 5th group, okay, and the 6th group for this year, so 60 a year has been a pace that's been working well. The only problem -- and I wouldn't call it a problem -- is that we get the product out, the matrix, the findings, the 3-ring binders out, but it's always quite uncertain how long it's going to take to get closeout when we -- once we have the matrix in place. As you can see, we will -- you know, we will have the -- the matrix, the reports, the paper in place. The dialogue started. How long it takes to close out all the issues -- I think it took a little bit more time on the first one, and then it takes -- the second one we're -- we get a little better. I think we're getting to the point now where we've seen a lot
of issues again and again, and we're getting to the point where we're clearing those. I would say maybe 60 percent of them we can clear really quickly. And there's always some new ones that take a little bit more time. So as we do more and more, $I$ think we get a little more efficient in moving the -- what $I$ call the matrix closeout process quickly, so I'm hoping that this is going to continue in that vein.

DR. ZIEMER: Keep in mind also that this process is competing for Board time, for NIOSH time, for $S C \& A$ time with site profile reviews, with SEC petitions, so there are sort of limiting factors that come into play. In some cases, for example -- and it's sort of the case now where we have the pressure of -- of closing SEC petitions in a timely fashion. That tends to go on the front burner, and these for which there's no sort of deadline closeout -- except for what we impose on ourselves -- tend to then move back in the queue.

DR. LOCKEY: What -- what is the average -- the complete cycle is taking about what time, do you think?

DR. MAURO: Oh, the -- well, the closeout --
let's -- I would say the -- the process of receiving this -- the CDs, then -- and delivering --

DR. LOCKEY: The process.
DR. MAURO: -- delivering the report with the matrix typically has been on the order of about three months.

DR. LOCKEY: Uh-huh.
DR. ZIEMER: But that doesn't include the closeout of the matrix.

DR. MAURO: But not the closeout. The closeout, $I$-- I -- quite frankly, I would have to say -- you know, it -- it -- because of the -- if we went right to the closeout process -okay? -- and were not let's say sort of sidetracked a bit on other -- other matters, the closeout process I would say probably would add another two months, because we usually have several -- you think that's a -- a fair -- so if we actually were at -- just clicking along, three months to get the product out and then another month -- month to two -- we might actually be in a mode where we could do it within in a month right now, I think. I think earlier on it took a little longer.

DR. ZIEMER: Earlier on we were sort of inventing the process --

DR. MAURO: Yes.
DR. ZIEMER: -- as we went, so --
DR. MAURO: Yes, so in -- in reality $I$ think it's -- I mean theoretically, we're operating at full efficiency, we probably could move these out in four months -- three months to get the product out and the one month to move out the -- the -- the closeout process. I think that would be the optimum mode of -- mode of operation.

DR. LOCKEY: So eight months?
DR. WADE: Reality is a year I think.
DR. LOCKEY: Is reality --
DR. MAURO: Oh, I'm talking each set of 20 .
That's -- so --

DR. WADE: But $I$ think to be fair, and I think this is an important discussion, the closeout process is taking a long time. And I would say a reasonable person would say it would take a year from start to finish. We could do better with better discipline, but there are things competing for the Board's time.

DR. MAURO: I think that's the reason. I think
that it's the -- it's not that we're having problems closing out the issues. We actually put them on the back burner when other hot items come up.

DR. ZIEMER: Yeah, --
DR. MAURO: If we actually kept it on the front burner all the way, I think we could move them out --

DR. ZIEMER: Sure.
DR. MAURO: -- pretty quickly.
DR. ZIEMER: Yeah. That -- that was the point I was making.

DR. MAURO: Yes.
DR. ZIEMER: Thank you, John. Okay, let's -let's --

DR. WADE: Could I just continue with Dr. --
DR. ZIEMER: Oh, sure. Lew -- uh-huh.
DR. WADE: -- Lockey's -- I mean the Board has decided 60 a year is the target. The Board could change that. The Board has decided that two and a half percent of cases is a -- is a reasonable amount to audit, and that again is a Board decision. So all of those things are always up for discussion as the Board learns, as the process unfolds.

DR. ZIEMER: Let's proceed then to look at selections -- I guess -- I'm looking for Hans and Kathy. They're not here yet, but I don't think we should necessarily delay. I think we can get under way and if they do appear and we have those additional charts, that will help inform our selections. But you already have in mind and we have stu's summary that -- that tells us where we are on different types of cases, so you might have that before you. Even though it doesn't have the pie charts that the other report does, it does inform us as to what facilities we've sampled from, what types of cases we've looked at, what POCs have been reviewed and so on, so you have -- you have the information before you. So $I$ think we can proceed to make a selection. And if it's agreeable, we'll use the full internal and external list as a starting point.

DR. WADE: Just for our record, I do have Kathy's material in front of me, and it really is just a graphic presentation of materials that are on your tables. There's a bar chart that shows the breakdown of the first 80 cases by site, but you have that information --

DR. ZIEMER: Which is a bar chart of this -DR. WADE: Right.

MS. MUNN: Yes.
DR. ZIEMER: -- information.
DR. WADE: There's a bar chart of the first 80 cases by risk model.

MS. MUNN: Very visual, easy to see.
DR. ZIEMER: John.
DR. MAURO: That came in electronically, I
believe, and so theoretically you might be able to pop it up on the screen.

DR. ROESSLER: It's a PowerPoint, yeah.
DR. MAURO: Yeah, it's a PowerPoint, so if any
-- so I'm -- I don't have it.
DR. ROESSLER: I don't know how to make this work with that.

DR. MAURO: My guess is if -- you know, we -we could get it --

DR. ROESSLER: Oh, it's on here.
DR. MAURO: So it's on -- on -- on -- on that staff --

DR. ZIEMER: She has it on a flash --
DR. MAURO: So we could actually put it up on there and we'll do the best we can. I could sort of fill in and -- they're pretty self-
evident. It's --
DR. WADE: And they're just visual
presentations of information you already have --

DR. MAURO: Right.
DR. WADE: -- so as we're discussing the category it could be --

DR. ZIEMER: Sure.
DR. WADE: -- presented visually.
DR. ZIEMER: Okay. Mark.
MR. GRIFFON: Could I just --
DR. ZIEMER: Comment?
MR. GRIFFON: Just an observation on the cases we have to select from. I mean the 5 th set that we just put into place, I think it does have, if I counted right, four Savannah River cases. And when I'm looking at these best estimate cases available, there's a lot of Savannah River and Hanford cases, so I -- I think we should keep that in mind as we're going through. We already have done quite a few of those.

DR. MAURO: Already done a few --
MR. GRIFFON: Yeah.
DR. MAURO: -- and -- represent a large
percentage, too, so --
MR. GRIFFON: Right, they do represent a large percentage, right. That's right. That's correct.

DR. ZIEMER: Right, and -- and you notice, for example, Savannah River Site -- we've done less than half of what's --

MR. GRIFFON: Yeah.
DR. ZIEMER: -- what our -- what our goal would be and so -- and so there's room to add, so don't feel bad about selecting additional ones if they look interesting. I think the method we used before works pretty well where we simply go down the list and -and individuals can identify if they think the case is interesting, and we'll begin to make a tentative list of -- of --

DR. DEHART: Paul --
DR. ZIEMER: Yes.
DR. DEHART: -- for the benefit of our -- our new Board members, $I$ think it's important they understand that the first sets of cases are considerably different in character from the later cases, because the efficiency methods that were used made those cases very simple to
go through, basically, because there wasn't a great deal of effort in terms of doing dose reconstruction.

DR. ZIEMER: Thank you, good point. And I think there was certainly a feeling that those cases were fairly straightforward, that there would be very little benefit to keep reviewing cases of that type over and over again since the methodologies were very straightforward and the outcomes were -- were straightforward. Where we wanted to focus more is on cases that required -- if $I$ could describe it as a greater level of effort on the part of the dose reconstructor in terms of models used, assumptions made and those kinds of things, and also cases that were closer to the 50 percent probability of causation, above or below, particularly those that were perhaps slightly below. So that certainly influenced how we began this selection. And Stu, just -- Stuart Hinnefeld, just for clarification, the full internal and external from the pool -- this is everything in the pool, is that -- was that my understanding?

MR. HINNEFELD: Yes, the full internal and
external list is everything in the pool.
DR. ZIEMER: And the order that they -- were they randomly selected from that pool? I'm wondering if the -- the order that we have on our sheet is in any way biased.

MR. HINNEFELD: It'll be biased -- it'll -it'll probably be roughly case tracking numbers, so it'll be roughly in the -- probably it'll -- $I$ think it will be in roughly the order in which we received the case from the Department of Labor.

DR. ZIEMER: So there's a high likelihood that the list begins with earlier claims and -MR. HINNEFELD: Earlier -- earlier referrals to us. You know, it'll be -- actual date of completion of the claim is on the list --

DR. ZIEMER: Right.
MR. HINNEFELD: -- so you can kind of get an idea when we completed the claim.

DR. ZIEMER: Right, right.
MR. HINNEFELD: But the -- the earlier ones on the list are -- $I$ think are probably earlier referrals to us. I'm not 100 percent confident of that, but $I$ think that's probably how --

DR. ZIEMER: I'm trying to get a feel as to
what kind of bias would be here if we simply start at the beginning of this list and start selecting. I mean for example, suppose we decided that the first 20 on here were really interesting, and those were the 20 we took. What -- what kind of bias have we introduced by doing that?

MR. HINNEFELD: It would be --
DR. ZIEMER: There's a kind of randomness in them already, built into the fact that...

MR. HINNEFELD: It -- it would be -- I -- I -well, I'm speculating -- speculating that it would be biased towards the sites where the program was better -- best advertised first. DR. ZIEMER: Which may be why you get a lot of Savannah Rivers in here and so on. Okay. Thank you.

So Board members, again, I seek the wisdom of the group. Do you want to proceed down through the list in order or do you want to skip around? We can go by page and say okay, do you see some on page 1 that are interesting and -let's do it that way then.

Okay, so -- oh, okay. May-- maybe we'll pause here a minute and Board members, you can take a
look at this -- the slides here. Here -- this basically is what you have numerically, Stu, in your -- in your breakdown --

MR. HINNEFELD: I believe that's -DR. ZIEMER: -- and it's shown as a bar graph. MR. HINNEFELD: I believe that's the case. Kathy Behling prepared this, so I don't really -- I can't say for sure, but I believe that's the case.

DR. ZIEMER: Well, for -- for example, let's look at Savannah River, I'm looking for --

MR. HINNEFELD: It's got 14.
DR. ZIEMER: It shows 14 cases, which is exactly what you show on yours.

MR. HINNEFELD: Okay.
DR. ZIEMER: Hanford shows 12 cases. Her's seems to show 11, so there's a little difference there for some reason. That may be one of those double count things, however. ORNL shows 11 -- this says $\mathrm{X}-10$ only has three. MR. HINNEFELD: Her line is combined. She's got all the Oak Ridge plants --

DR. ZIEMER: Oh, okay, okay -- yeah, yeah, uhhuh. She's added $Y-12$ with eight and $X-10$ with three, uh-huh, to get the 11.

MS. MUNN: K-25 in there, too.
DR. ZIEMER: Yeah, I don't think K-25's going
to show up on this list, is it?
DR. WADE: Well --
DR. ZIEMER: We don't have $\mathrm{K}-25$ cases, no.
Okay. Anything else you want to see -- and there's the risk models.

MS. MUNN: Decades of employment seems to be one of the --

DR. ZIEMER: Ray, are you hearing this okay?
THE COURT REPORTER: Not Wanda.
DR. ZIEMER: Couldn't hear Wanda. Wanda, repeat. You're right next to Ray, but he's listening through the mike.

MS. MUNN: Okay, the decades of employment were --

UNIDENTIFIED: (Off microphone) Two more -- he has two more coming up. Next one -- there it is.

MS. MUNN: We seem to be away from our goals on that one.

DR. ZIEMER: Well, you know, you're not -there's not much going on in the '30s anyway. I'm not sure why the --

MR. PRESLEY: It got --

DR. ZIEMER: -- what is going on in the '30s?
MR. PRESLEY: It got --
MS. MUNN: That was me, I --
MR. PRESLEY: -- page three.
DR. ZIEMER: Yeah, well, I think -- I think those were cases where the person worked for the company before there was nuclear work, and their work period carried over. There certainly was not --

MR. HINNEFELD: Correct.
DR. ZIEMER: -- any weapons work going on in the '30s.

MR. HINNEFELD: That's correct. That's the employee's --

DR. ZIEMER: That would count here.
MR. HINNEFELD: -- employee's start date at
that covered facility --
DR. ZIEMER: Yeah.
MR. HINNEFELD: -- even though the covered
employment --
DR. ZIEMER: So I don't think we --
MR. HINNEFELD: -- may have --
DR. ZIEMER: -- expect much --
MR. HINNEFELD: -- occurred later.
DR. ZIEMER: -- in the '30s.

MS. MUNN: (Off microphone) No, but (unintelligible).

DR. ZIEMER: We have a pretty good distribution of the rest, it looks like and --

MS. MUNN: Well, $I$ was only comparing them to our goals --

DR. ZIEMER: Uh-huh.
MS. MUNN: -- Dr. Ziemer. Our -- our --
DR. ZIEMER: Go back to, Lew.
UNIDENTIFIED: (Off microphone) Go back to it.
I think the '50s and ' 60 s are important.
MS. MUNN: Yeah, and they -- we seem to have been light on them.

MR. GRIFFON: I thought we were pretty close. UNIDENTIFIED: Light on '60 and heavy on '50, but --

MS . MUNN: Uh-huh.
DR. ROESSLER: Heavy on '80s. Almost twice as much on the'80s.

MR. GRIFFON: Yeah. That's really the only striking difference to me, yeah.

DR. ZIEMER: Okay.
MS. MUNN: It just appears the '60s and '70s --
DR. ZIEMER: Okay, again, to keep in mind during our selection process. Okay. Good
point. Any others? Okay, let's -- let's turn our attention then to the -- to the table and I'll take it by page and let's get -- we'll get some candidates. We can -- we can go back and see where we are, but let's identify, at least preliminarily, interesting cases on the first page.

MR. CLAWSON: Paul, I'd like to take a look at

DR. ZIEMER: Brad Clawson -- use the mike, Brad, please.

MR. CLAWSON: I'd like to take a look at 08.
DR. ZIEMER: 08 , a lung case from Argonne West.
MR. CLAWSON: That's correct.
MS. MUNN: Even I could hardly hear you, Brad. You're still not close enough to the mike, but I got it.

MR. CLAWSON: Okay, thank you. I apologize.
DR. ZIEMER: Okay. Others on page one?
DR. DEHART: Number 18, Gaseous Diffusion
Plant, combined with $Y$-12.
MR. GRIFFON: I agree with that.
DR. ZIEMER: Uh-huh, okay, case number 18.
MS. MUNN: Number 19, that's a 1960s case.
DR. ZIEMER: Number 19 is a case at Mound, male
genitalia.
MS. MUNN: Uh-huh, two cancers.
DR. ZIEMER: And two -- oh, yes, lymphoma. Any
-- any others on page one?
DR. DEHART: 22, Nevada Test Site, lung cancer.
DR. ZIEMER: And I'll just note these are all
earlier work decades, '50s and '60s, with
respect to Wanda's earlier concern.
Okay. Any others on page one?
(No responses)
Okay, let's take a look at page two.
MS. MUNN: Number 26 has two cancers, 1960s.
DR. ZIEMER: Number --
MS. MUNN: 26 .
DR. ZIEMER: -- 26 ?
MS. MUNN: Uh-huh.
DR. ZIEMER: Savannah River Site.
MS. MUNN: '60s decade.
DR. ZIEMER: Okay.
DR. ROESSLER: Number 31 at Hanford, just
barely over the POC.
DR. ZIEMER: Okay, number 31, Hanford site, acute myeloid leukemia. Any others?

MR. CLAWSON: 48, stomach at Hanford.
DR. ZIEMER: 48, stomach cancer, Hanford.

DR. DEHART: 49, Y-12.
MS. MUNN: That's another '80s one.
DR. ZIEMER: Okay. Very low POC here.
DR. DEHART: Yes.
DR. ZIEMER: Interestingly enough.
DR. Dehart: Prostate, I guess.
DR. ROESSLER: It's also 1980s.
MS. MUNN: Which we are overloaded with.
DR. ZIEMER: You still want that one, though.
It's likely to be a prostate, I suppose.
DR. DEHART: Yeah. Yeah, I'd like --
DR. ZIEMER: Huh?
DR. DEHART: Yes.
DR. ZIEMER: Okay. Any others?
DR. LOCKEY: I'd like 33. I mean I'm not sure...

DR. ZIEMER: 33 is a Savannah River, two cancers -- well, multiple cancers, respiratory and non-melanoma skin, squamous cell. Yeah, we've got a number that are just barely over 50.

Sometime, NIOSH folks, I'd like to have a discussion as to why we're carrying these POCs to five significant figures -- 52.599.

DR. ROESSLER: Exact degree of accuracy.

DR. ZIEMER: We won't have the discussion now, but you know --

DR. WADE: Are you implying there should be more significant figures?

DR. ZIEMER: You know, like that's 53 plus or minus ten, is what it is, but --

MS. MUNN: I don't think that's the implication.

DR. ZIEMER: I know. I know. I'm always scolding my students when they do that. We -we don't have that level of certainty in these numbers.

Well, okay, let's go ahead. I get off on a soap box here.

Let's go ahead to page three -- how many do we have here?

DR. WADE: You have nine so far.
DR. DEHART: We have nine now.
DR. ZIEMER: Page three.
DR. DEHART: 59.

MR. PRESLEY: Yeah.
DR. DEHART: 59, a Huntington.
DR. ROESSLER: Ooh, that's a good one.
MR. PRESLEY: Uh-huh.

DR. ZIEMER: Multiple, barely over, on skin.

MR. PRESLEY: Do we want to look at that other one from (unintelligible) that's 1930s? It's a low POC, but it's the only thing we've got from that time frame. 65, do we want to look at that just for the heck of it?

MR. GRIFFON: I think that's a better one than the one we just said.

MR. PRESLEY: We only got one in the '30s and that --

DR. ZIEMER: Well, I -- Yeah. Of course that person's work period -- that's really going to be -- the work is really done in the ' 40 s and ' 50 s, but yeah.

MR. PRESLEY: '40s,'50s and'60s.
DR. ZIEMER: Yeah.
MR. GRIFFON: He's got 35 years.
MR. PRESLEY: Yeah.
DR. ZIEMER: Probably -- well, the other one's a skin. I -- this lung might be more -- if you were going to choose between the Huntington -MR. PRESLEY: I would rather have -- I would rather have the 65 .

DR. ZIEMER: Who --
DR. DEHART: I had suggested -- that's -that's fine. It's going to be -- multiple
basal cell is what 59 would be.
DR. ZIEMER: We'll drop 59 for the moment. Any others on page three?

MS. MUNN: We're not going to do 59? Did I understand correctly we're not doing 59?

DR. ZIEMER: We're going to -- going to
substitute 65 for 59. It's a Huntington also, but it looks a little more interesting. Well --

DR. LOCKEY: Which ones?
DR. ZIEMER: -- matter of opinion, I suppose. DR. WADE: Only 65, so far.

MS. MUNN: 65, so far.
DR. ZIEMER: Any others on -- on page three?
DR. LOCKEY: May I ask a question? What's Birdsboro Steel \& Foundry? I just don't know what that is.

DR. ZIEMER: Birdsboro Steel \& Foundry.
MR. HINNEFELD: That was an Atomic Weapons
Employer, $I$ believe it was a uranium-forming plant. They did some sort of either machining or shaping of uranium.

DR. ZIEMER: Where is Birdsboro?
MR. HINNEFELD: I can look it up, but $I$ don't know off the top of my head.

DR. ZIEMER: We probably have one in Indiana, but --

MR. HINNEFELD: I don't think it's in Indiana.
MS . MUNN: How about --
DR. ZIEMER: Were you suggesting that one or were you just curious?

DR. LOCKEY: Well, I -- I -- it'd be -- is it interesting to look at dose reconstruction at a small employer like that? Is that something of interest? I'm not knowledgeable enough to know. I might ask the Board that, is that something that we should look at on an (unintelligible) basis?

MR. GRIFFON: Probably -- it probably falls under a generic uranium model, wouldn't it? It falls under a generic uranium model under --

MR. HINNEFELD: It was -- it was probably with -- yeah, the complex-wide generic uranium.

MR. GRIFFON: I'm not saying -- I'm not saying no, but we've looked at several of those, so -MS. MUNN: It is the '60s.

DR. ZIEMER: What's your pleasure? You want to add that or not?

MR. GRIFFON: No.
MS. MUNN: Yeah, why not.

DR. WADE: So 72 -DR. ZIEMER: For now we'll put it in and see what we end up with here.

DR. DEHART: What number was that?
DR. LOCKEY: 72.
DR. WADE: 72.
MR. ELLIOTT: Birdsboro Steel is in
Pennsylvania.
DR. ZIEMER: Pennsylvania. Thank you. Any others on page three?
(No responses)
Okay, page four.
MR. PRESLEY: 96, Y-12.
DR. ZIEMER: Number 96 from $Y$-12.
MR. PRESLEY: Early years.
MR. GRIFFON: It's in the '50s, too, so I don't know --

MR. PRESLEY: Yeah.
MR. GRIFFON: What we're doing tomorrow might impact on that.

DR. DEHART: It takes a while for cancer to develop.

DR. ZIEMER: Any others?
MR. PRESLEY: How many -- how many bone cancers have we really gone through?

DR. DEHART: Not too many. The way the definition is, they could be a -- a metastatic disease.

DR. ZIEMER: I'm -- I'm looking -- oh, John Mauro?

DR. MAURO: I'm sorry, I had a thought that I wanted to pass on that $I$ thought might be an interesting perspective. As you know, we are in the process of reviewing the SECs for three sites -- Ames, Rocky and Y-12 -- and there are many issues that are before us, especially for Rocky and $Y-12$, dealing with adequacy of data, coworker models, all of which are in a very -what $I$ would say state of -- of review. I would find it -- the cases that have been done -- okay? -- now -- and are basically behind us because they've been completed, it'd be very interesting to see what the sta-- state of knowl-- right now we're at a certain state of understanding of the models, the applications and dealing with the issues that have emerged during the SEC process, and then looking at actual cases that were already liti-completed, adjudicated, and to see if in fact the issues that we are sort of struggling with
now, how they were dealt with in those cases already. It's a perspective that $I$ guess we never really talked about, but it'll be very revealing to find out how real are the issues that we are sort of discussing right now regarding $S E C$ really come to ground when they adjudicated cases in the past before we engaged in these issues. It's just a -- a thought that you may want to take into consideration. DR. ZIEMER: Actually, I -- I haven't noticed any Rocky --

DR. DEHART: No, I haven't either.
DR. ZIEMER: -- cases on the list. I'm not sure there's any Ames cases on this list, are there? There are some $Y-12 s$, of course, but thank you, John, for the -- the comment. I think -- may indicate that some of those cases are still awaiting -- pending. 96 of course was a Y-12 here.

Any others on page four? How many have we got?
DR. WADE: We're up to 12.
DR. ZIEMER: Okay, page five.
DR. WADE: We have the two carryovers.
MR. PRESLEY: What about 98?
DR. ZIEMER: Oh, we're back on page four? 98,

Allied Chemical?
MR. GRIFFON: He's only got two years of work, that's the only...

MR. PRESLEY: Low POC with two years of work. DR. DEHART: Yeah.

MR. GRIFFON: I was surprised it was a full external and internal since it's a short time period.

DR. DEHART: Two years, that's --
MR. HINNEFELD: I think we have a site profile -- essentially a dose model site profile for Allied Chemical, but I'm not -- I'm not sure of that. We've written a site profile for Allied Chemical. I'm not exactly sure why a full one was done as to an -- over an estimate. Maybe the overestimating techniques didn't work. I mean were too high. We actually -- in addition to having a site profile, I believe we get exposure records from Allied Chemical. I believe we do.

MS. MUNN: That's a 1960 file, too. For that reason, it might be a good one to look at.

MR. GRIFFON: Yeah.
DR. ZIEMER: You want to look at it?
MR. GRIFFON: I don't think we've seen that
site, either.
MS . MUNN: No.

DR. ZIEMER: Okay, I'll add it.
MS. MUNN: Good idea.
DR. ZIEMER: 98.

DR. ROESSLER: On page four, how about 93?
That one -- $I$ want to ask Roy, though. Does
that category include prostate? Is that right,
the all male genitalia, is that prostate?
DR. DEHART: The -- the coding could be
prostate, yes.
DR. ROESSLER: Yeah. Well, that one -- that one looks interesting. That's the '40s, he worked for four years -- I'm assuming -- yeah, it has to be a male -- yeah, that one looks interesting.

MR. HINNEFELD: Prostate is included in that model. I don't know about --

DR. ROESSLER: And we -- we need --
MR. HINNEFELD: -- this exact case, but
prostate is --
DR. ROESSLER: We need more --
MR. HINNEFELD: -- included in that model.
DR. ROESSLER: -- in that category.
DR. ZIEMER: Thank you. 93?

DR. ROESSLER: 93.
MS. MUNN: Yeah, that one --
DR. DEHART: 93?
MS. MUNN: -- one step over the line.
DR. LOCKEY: Testicular and prostate are under
the same?
MR. HINNEFELD: I'll have to look on
testicular. I --
MS. MUNN: I think it is.
MR. HINNEFELD: I don't recall if --
testicular's ICD so $I$ don't know if it's in
that 85 to 87 group or not. I'd -- I could
look it up, but $I$ don't know off the top of my head.

MS. MUNN: I think it is.
MR. HINNEFELD: The ICD-9 codes that are listed here are the ones that track into that model, so -- 185 to 187.

DR. ZIEMER: Okay, we'll put it in for now.
So we actually have, with the two carryovers,
we have 16 cases at the moment.
Page five.
MR. PRESLEY: 106, Idaho National Lab, 32
years, POC of 45.98.
MR. GRIFFON: Yeah, I (unintelligible) --

DR. ZIEMER: Which one is it, 106 ? Uh-huh. DR. DEHART: Yes.

DR. ZIEMER: Colon cancer.
DR. DEHART: Yeah.
DR. ZIEMER: Uh-huh. Okay, good.
MS. MUNN: 109 is another lung out of the Ordnance Plant in the '60s.

MR. GRIFFON: Isn't that -- Iowa, though, isn't that --

DR. DEHART: Five years.
MR. GRIFFON: $--\quad a \quad S E C ?$
DR. ZIEMER: Is this -- yeah, would this now be under the SEC?

MR. HINNEFELD: You talking about 109 ?
DR. ZIEMER: Yeah.
MR. HINNEFELD: Based on the information on
this page, this looks like this would be an SEC
case. Now we don't make the determination of
which cases are compensated. You know,
Department of Labor makes that.
DR. ZIEMER: Right. Right.
MR. HINNEFELD: It looks to me like it would
be, and this case was done before --
DR. ZIEMER: It was done before the SEC.
MR. HINNEFELD: -- before the SEC class was
added for Iowa.
MS. MUNN: Yes.
DR. ZIEMER: So --
MS. MUNN: Mark it off.
DR. ZIEMER: So -- I mean --
MS. MUNN: It comes off.
DR. ZIEMER: -- looking at it would be just a matter of, again, looking at the procedure, not -- doesn't -- it's an academic question. That doesn't mean we shouldn't be looking at it, since it might point out something, but...

MR. PRESLEY: How about 113, Bridgeport Brass. It's a low POC but he's got 34 and a half years, starts out in 1940 .

MS. MUNN: 113.
MR. PRESLEY: Colon and all male.
DR. ZIEMER: All right, 113.
DR. LOCKEY: How about 108? I assume this is -

- I assume that's kidney. Roy?

DR. DEHART: I don't -- well, I'm not sure on that. It would almost have to be, since bladder's excluded.

MS. MUNN: Yeah.
DR. ZIEMER: Bethlehem Steel?
MR. PRESLEY: How about 125?

DR. WADE: So 108 is in for now?
MR. PRESLEY: 108's in?
MS. MUNN: Uh-huh.
DR. WADE: Is that clear?
DR. ZIEMER: Yeah.
DR. WADE: Okay.
MR. PRESLEY: 125, it's a gall bladder --
MS. MUNN: Yeah, that.
MR. PRESLEY: -- Superior Steel.
MS. MUNN: That looks very interesting.
MR. PRESLEY: The '30s, 25.8 .
MS . MUNN: Yeah.
MR. PRESLEY: It's a -- it's a compensated, but it's still low.

MS. MUNN: Just barely.
MR. PRESLEY: Just barely.
DR. ZIEMER: Okay.
MS. MUNN: Interesting.
MR. GRIFFON: And the -- the -- again, one
thing to clarify, Stu, a lot of these I think that say fall into an external -- a full based on a model. Right?

MR. HINNEFELD: Yes.
MR. GRIFFON: One model, it's not individual dosimetry like for Superior Steel --

MR. HINNEFELD: In many cases, like Bethlehem Steel would be done that way.

MR. GRIFFON: Bethlehem Steel, yeah, so it's just one model, so once we've reviewed the model --

MR. HINNEFELD: Yes.
MR. GRIFFON: -- it doesn't make a lot of sense to review a lot of different cases.

MR. HINNEFELD: Well, whatever you say, but for -- for things like Bethlehem Steel it says -there we'll say full internal and external because they were done in accordance with the model and all components --

MR. GRIFFON: Right, right, no --
MR. HINNEFELD: -- of the model were included.
MR. GRIFFON: -- I'm just clarifying for our -yeah.

DR. ZIEMER: And we've done four Bethlehems already.

MR. GRIFFON: We've done four Bethlehems and it would be the same model we're looking at, so... And Superior Steel I think is much the same approach.

DR. MAURO: Another one of these thoughts. We've noticed that Beth-- Bethlehem Steel --
we've looked at a number, as you pointed out, and it was -- and the approach was the original site profile approach, which of course was the subject of a great deal of discussion and I believe NIOSH is in the process of revising the Bethlehem Steel site profile. All of the Bethlehem Steel cases were based strictly on the site profile, so -- now what would be interesting is if there are any new Bethlehem Steel cases that have already been adjudicated using the new methodologies and to see how those new methodologies that we've discussed during the site profile review process have in fact been implemented. I haven't had a chance to talk with -- whether that exists or not -MR. GRIFFON: Or these -- these older ones might be interesting if they're below 50 percent.

DR. ZIEMER: Yeah, 'cause they'd be -- they would be reviewed over again.

MR. GRIFFON: 'Cause the model, if anything, has gone up since we've reviewed.

DR. MAURO: Well, it's hard to say.
MR. GRIFFON: Yeah.
DR. ZIEMER: Okay. Thanks.

MR. GRIFFON: That may not -DR. ZIEMER: Jim -- Jim Neton, comment? DR. NETON: We would review all the cases under 50 percent as part of our normal program evaluation report.

DR. ZIEMER: Yeah, this one would not be, since it's over anyway.

DR. NETON: If it's over, it's not going to be reviewed, that's correct.

DR. ZIEMER: Thank you. So do you want to leave this in, in any event, or... What's your pleasure on this Bethlehem Steel?

MS. MUNN: Yeah, leave it there --
DR. ZIEMER: Leave it?
MS. MUNN: -- for the time being.
DR. ROESSLER: What number is this?
DR. DEHART: 108 .
DR. ZIEMER: We have mixed emotions on that one, it sounds like. Some want to drop, some want to leave it. Let's see what else we've got. We actually have our 20 cases. Let's get a couple extras here.

MS. MUNN: How about 136 on the next page?
MR. GRIFFON: Superior?
DR. ZIEMER: Superior is in at the moment, 125.

Are there any others on page 5?
(No responses)
If not page six. Wanda, you were suggesting which one?

MS. MUNN: 136 .
DR. ZIEMER: 136, Santa Susana Field Lab, lung cancer. Okay.

MS. MUNN: 22 years.
DR. ZIEMER: Others?
MR. PRESLEY: That 155 is a small company, 28 years experience, 1950. It's a multiple cancer, POC is 27.52, but it's a lot of years starting in '50. I don't know -- I don't know what they did at -- I don't know what they did at American Bearing.

MS. MUNN: Probably made bearings. I'm sorry.
DR. ZIEMER: Okay, you're suggesting 155?
MR. PRESLEY: Yes, sir.
MR. GRIFFON: I would -- I would suggest the next page, 163 or 166 .

DR. ZIEMER: On page seven?
MR. GRIFFON: Yeah, since we're getting down to extras.

DR. WADE: 163, is that what you said?
MR. GRIFFON: Yeah, 163 and/or 166.

DR. ZIEMER: Put them both on the list.
MR. PRESLEY: I've got -- I had 171 marked for
-- for Mound, 24 years, 48.176, multiple
cancer. It's real, real close.
DR. ZIEMER: Which one?
MR. PRESLEY: 171.
MS. MUNN: And it's the '60s.
MR. PRESLEY: The '60s, 24 years.
DR. ZIEMER: Okay.
MS. MUNN: That's the best of all possible worlds.

DR. ZIEMER: Which one is that?
MS . MUNN: 171 .
MR. PRESLEY: 171.
DR. ZIEMER: 171, also take a look at -- what do we have -- how many Hanford -- we -- we're not --

DR. DEHART: We've got quite a few. We've got 12 already done.

DR. ZIEMER: Twelve.
MS. MUNN: We have and we need 25.
DR. ZIEMER: There's one -- 151 at -- a lung cancer at 50.1 percent. That's kind of interesting.

MR. GRIFFON: There's 144 that's just a little
below, Hanford also.
DR. ZIEMER: That might be even more interesting. It's a little longer. Let's put that one on, 144 .

DR. DEHART: 144?
DR. ZIEMER: Yeah.
MS. MUNN: 144?
DR. ZIEMER: That actually gives us what, Lew, $25 ?$

DR. WADE: 26 by my count, if we include 163, 166, 171.

DR. ZIEMER: Let's use that as the list. What -- our experience has been is that once we check these out with Labor and so on, there -there -- we may lose a few anyway. And then if we have some extras, we'll carry them forward. So 26 is a -- is a -- probably a good group to -- to use.

Let -- let me ask now, do any of you have any others that you wish to add to this or any that you have second thoughts about and want to have deleted? We've actually covered most of the -MR. CLAWSON: I'd like to take a look at one. I know it's a Savannah River, but we haven't done very many (unintelligible), so 181.

MS. MUNN: Mike, Brad.
MR. CLAWSON: What?
MS. MUNN: Your mike.
MR. CLAWSON: Oh, I'm sorry. I'd like to look at 181 .

DR. ZIEMER: 181, Savannah River, which is a bone, male genitalia.

Okay. There was one that we were -- we were somewhat dubious on -- I'm trying to see which it was -- that we can just drop in favor of this one. What was that?
(Pause)
Did we carry the Bethlehem Steel one forward?
MR. GRIFFON: Yeah, I $--\quad$ think --
MS. MUNN: That was one we had and questioned, I think. It was 108 , wasn't it?

DR. WADE: 108 is still on the list.
DR. ZIEMER: Why don't we drop -- is that a -anyone object to just dropping that one in favor of this --

MS. MUNN: No, that's fine.
DR. ZIEMER: Okay, let's do that, drop 108.
DR. WADE: Okay.
DR. ZIEMER: If it's agreeable then, Lew, if you would read through the numbers for us and

I'll ask that this be a motion that we make to the full Board, that the following cases be recommended for the next round of $20--$ with the understanding that out of these 25 , a few could disappear because of issues as to reopening cases and so on. And if there are extras, we'll carry them forward.

DR. WADE: So here we go, starting at the top -
$-08,18,19,22,26,31,33,48,49,65--$
MS. MUNN: Whoa, just a minute. I missed 49 .
DR. ROESSLER: 49, are you sure?
DR. WADE: Uh-huh.
DR. ZIEMER: Uh-huh.
DR. DEHART: Yes.
DR. ZIEMER: Yep.
MR. PRESLEY: Yep.
DR. WADE: Repeating, 65, 72, 93, 96, 98, 106, 113, 125, 136, 144, 155, 163, 166, 171 and 181.

And we have the two carryovers from the 5th set.

DR. ZIEMER: Okay. A motion to recommend this to the full Board?

MR. PRESLEY: So moved.
DR. ZIEMER: Second?
MR. CLAWSON: Second.

DR. ZIEMER: Did you get the motioner and the seconder? Ready to vote? All in favor, aye? (Affirmative responses)

Opposed?
(No responses)
The motion carries. Thank you.
DR. WADE: Very well done.
DR. LOCKEY: Paul, a question. It might be helpful to have what's included in the ICD codes if -- could that be provided as a -- as a reference list?

DR. ZIEMER: Sure.
DR. WADE: Oh, yes.
DR. ZIEMER: Yeah, maybe just a separate reference list that people can -- you -- you mean on the charts in the future or -- or a footnote or something, or an attachment with the listing?

DR. LOCKEY: Just a separate page --
DR. ZIEMER: Yeah.
DR. LOCKEY: -- that if you look at urinary organs excluding bladder, I -- just so I know what that includes. I think I know, but I'd like to be sure.

DR. ZIEMER: Yeah. Okay, I think we're
actually -- when -- when's our break due?
DR. WADE: When you decide.
DR. ZIEMER: When I decide. I think we'll take a comfort break at this point.
(Whereupon, a recess was taken from 10:40 a.m. to 11:05 a.m.)

DR. ZIEMER: I'd like to call the meeting back to order. If you'd all find your seats, we'll proceed.
(Pause)
COMPLETE REVIEW OF $2^{\text {ND }}$ AND $3^{\text {RD }}$ ROUNDS OF INDIVIDUAL DOSE RECONSTRUCTION CASES
MR. MARK GRIFFON, WORKING GROUP CHAIR
MR. STUART HINNEFELD, NIOSH
Okay. We're going to take a look at the resolution matrix for rounds two and three of the dose reconstruction reviews, so round two, as you may recall, is actually 18 cases rather than 20 because there were two cases -- I forget exactly -- I guess they were cases that were reopened or something. And than actually round three $I$ believe ended up being 22 cases to make up for the two missing ones. And the workgroup has been working through the resolution process on the various comments and -- again, you recall this is done through the findings matrix where we have the finding from

SC\&A, we have a NIOSH response. And then there's a series of sometimes phone calls or exchanges or face-to-face meetings involving NIOSH, SC\&A and the workgroup, and possible resolutions with a final Board action in cases where resolution is not straightforward. So Mark has been working with the matrices. Mark, let's begin with the second group, which would be the 18 cases, and you have -- I don't think we have hard copies of this yet, and this is kind of a status report, $I$ believe, of where the working group is on the second 18 cases. So Mark, I'll turn it over to you, and I know you have -- have the matrix there projected. MR. GRIFFON: Yeah, I -- I really -- where we're at -- this is a -- a -- definitely an example of the shifted priorities. We've kind of put these matrices on the back burner 'cause most of us have been involved in the $S E C$ petition review stuff, and the matrix $I$ have -well, I've updated the matrix for the $2 n d$ set, the 3rd set and the procedures review. At the same time, $I$ just found out this morning actually that NIOSH has added another column onto the matrix, which is basically a NIOSH
action, a list of their action items out of this -- this -- this review process, which is -- is certainly going to be very beneficial in tracking where things are going with this, but -- but where we're going to end up is I have to merge my edited matrix with NIOSH's edited matrix and produce a final matrix out of this and we're probably a workgroup meeting away from -- from finalizing this. But $I$ just wanted to give you a sense of it. The one -- the main thing that's changed in these matrices from the last meeting is that $I$ have -- I've gone through and SC\&A and NIOSH have gone through for some of those inconsistencies that we noted in the last meeting, or -- or question marks. I've received some comments back from both SC\&A and NIOSH on clarifying some of those items. I made some -- some small edits to the -- the resolution column, and then $I$ tried to put a Board ranking on the right-hand side, a Board action. And actually at the bottom of this matrix $I$ do have the -- the code for what this 1 through 7 mean on the action items. In the Board action column and -- and we didn't
print these off because we have two versions out there right now. NIOSH has edited one, but he didn't -- Stu Hinnefeld didn't edit from my last version, so we -- we thought it might be more useful and save a little paper if we finished the process and then distribute it. It's very much the same as the last one that was handed out in Denver.

DR. ZIEMER: So Mark, for clarity --
MR. GRIFFON: Uh-huh.
DR. ZIEMER: -- what you're saying is, in addition to this NIOSH resolution process -- or column -- NIOSH resolution column on the right, there is an additional NIOSH action, as it were --

MR. GRIFFON: That's correct.
DR. ZIEMER: -- column that would be added --
MR. GRIFFON: Yeah --
DR. ZIEMER: -- or somehow incorporated into that resolution --

MR. GRIFFON: Well, actually Stu -- I'm not sure how he fit it on the page, but somehow he has it on the far right, after the Board action -- the Board action number.

DR. ZIEMER: Well, could you clarify those,

Stu? How does it differ from the NIOSH resolution column?

MR. HINNEFELD: Well --
DR. ZIEMER: It's like a next step or --
MR. HINNEFELD: Right. I mean --
MR. GRIFFON: Yeah.
MR. HINNEFELD: -- some of these resolutions -NIOSH resolution columns will say things like NIOSH agrees that --

MR. GRIFFON: Right.
MR. HINNEFELD: -- that should be changed or amended or -- or some document should be changed. And so, you know, the -- the added column is what we in -- you know, our essentially commitment to do that. It's a list of things to put on an action item list to track those actions to completion.

MR. GRIFFON: A specific action instead of just saying NIOSH agrees with a finding and --

MR. HINNEFELD: And we'll do (unintelligible). MR. GRIFFON: It may -- it may be that there's no action, but --

MR. HINNEFELD: Right, some of them there's no action. Some of them -- for instance, a number of times in the dose reconstruction reviews
there were a number of comments that related to the clarity of a couple of our procedures and the missed dose component in a couple of our procedures, TIB-8 and TIB-10. And so our action -- you know, the action column is we -we said we will revise $T I B-8$ for clarity, or we will revise $T I B-10$ for clarity. It's captured as an action item coming out of this process that way. So it's something like that.

DR. ZIEMER: Okay. So this may be a new column that's -- says something or perhaps headed as NIOSH follow-up actions or something. We'll -MR. HINNEFELD: Yeah, it's -DR. ZIEMER: -- need to work that out.

MR. HINNEFELD: It's -- right, it's something that we feel like we should do because of this finding and the closure process and the discussion we've had on the finding. We feel like there's this action we should do. DR. WADE: I do have a copy for everyone of a list of all those actions. Possibly we could give that out and it would give some clarity. MR. GRIFFON: Yeah, I suppose I -- yeah. I guess it doesn't hurt. These -- these are still in draft 'cause the workgroup hasn't even
considered this action list, so --
DR. ZIEMER: Lew, the list you're handing out now is a summary of the actions that come out of the table that stu's discussing?

MR. GRIFFON: Yeah, so those'll come up in that last column in the matrix and -- and Stu's put it in a Word format, just for easier -- to save paper, too, I guess.

MR. HINNEFELD: Well, the idea --
MR. GRIFFON: Yeah.
MR. HINNEFELD: One of these matrices is 53 pages long, and so the idea between taking this action item and putting it onto a different piece of paper was to track progress on the sing-- on the action item list versus the 53page matrix, you know, with all the discussion. DR. ZIEMER: So some of these actions will appear multiple times, I guess. Is that -MR. HINNEFELD: I tried to only have it appear once. Once I specified a particular action -for instance, there's -- one of the actions from the first set is -- Ihink it's DR16.something, which is revise either TIB-8 or TIB-10 for clarity. Okay --

DR. ZIEMER: Revise TIB-10 to clarify method
for reconstructing missed dose.
MR. HINNEFELD: Okay.
DR. ZIEMER: But that might appear a number of times --

MR. HINNEFELD: That will appear in very many of the matrix --

DR. ZIEMER: Right.
MR. HINNEFELD: -- components.
DR. ZIEMER: Right.
MR. HINNEFELD: It'll appear once on the action item list.

DR. ZIEMER: Yeah, I see what you're saying.
MR. HINNEFELD: Yeah.
MR. GRIFFON: And then going back to -- to my edit of the matrix here, $I$ can just -- just skim over some of the things, but $I$ was going through and trying to also clarify -- 'cause there's a number of instances where it doesn't affect the case, and if it gets this -- this action of number 6 , that's basically that it's been -- the ac-- there's an action, but it's deferred to a site profile review or another -like a rewrite of a TIB or whatever, so it's -it's not -- and -- and there's some of these that were unclear. Like that yellow, I think

I've added since the last matrix so stu hasn't been able to consider that, but it -- it's -it was a matter of -- a situation where it didn't really affect the case that we were reviewing, but generically for that site, it was unclear to me whether it needed to be considered for the overall site profile or -or a TIB related to that site had to be addressed 'cause it could potentially affect other cases that are, you know, closer to the POC or whatever. So some of those -- that's why we have some -- that's why I have some yellow highlighting in here. But in -- in most cases -- and like I -- as I indicated earlier, I think the -- for the most part, the 2 nd set and 3rd set and the procedures review are -are a workgroup away probably of being finalized as far as a resolution process and -I mean we -- you know, we would just bring a full -- a final set back to the Board for consideration.

DR. ZIEMER: Let me ask the Board members, are you agreeable to wait until we get some kind of a merged form of stu's matrix with the NIOSH action items, or do you also want a copy of
this version that is being projected here right now? In fact, I -- I guess I need to ask the Designated Federal Official, for the public record, do we need a copy of Stu's matrix in the -- in the public record at this point? It's still a working document, but it's not -it's -- certainly can be made available.

DR. WADE: I see no reason why not to make it available. I think I -- Stu, you have a copy.

MR. HINNEFELD: Yes.
DR. WADE: That we could make copies from?
MR. HINNEFELD: Right.
MR. GRIFFON: And we could certainly make copies of this. I just didn't want to create confusion, but as long as people understand they go together kind of.

DR. ZIEMER: I want to make sure --
MR. GRIFFON: And they're very lengthy.
DR. ZIEMER: Let's go ahead and at least have available for the public, as well as for the Board members -- let's make sure that it's dated with today's date and -- so that -- and marked as a draft. The -- the Board action items are -- at this point are suggestions from the Chairman of this -- of the working group.

These do not represent acted-upon actions or approved actions --

MR. GRIFFON: Right.
DR. ZIEMER: -- so it's simply -- would be a recommendation that --

MR. GRIFFON: Yeah.
DR. ZIEMER: Well, it's not even a
recommendation at --
MR. GRIFFON: Not a recommen--
DR. ZIEMER: -- this point, it's -- it's Mark's first --

MR. GRIFFON: It's my interpretation of the resolution, really.

DR. ZIEMER: Right.
MR. GRIFFON: Yeah.
DR. ZIEMER: And so all he's doing today is reporting where he is on this, what has been done so far. So if -- if that's agreeable, we'll make sure a copy of this document is available, and you'll have -- have that at least in your files and then we will get the merged copy, which perhaps would be available by the time we meet again or by the time we have our -- we have a Board conference call meeting in August, $I$ believe, that's already
scheduled. And it may be that we'll be ready to take action by then if we get the documents merged and if the working group agrees on the recommended actions.

What $I$ would like to avoid doing would be to go through item by item on a phone call --

MR. GRIFFON: Yeah.
DR. ZIEMER: -- and try to resolve issues, so if we can get those documents out in advance, and then what we would do would be if Board members have an issue with any particular recommended action, we could discuss that rather than go through them one by one. Would that be agreeable with everyone?
(Affirmative responses)
Okay, any -- any further questions then on round two?

MR. GRIFFON: And the only -- the only other thing $I$ was going to point out is that just in some instances -- and this is part of our workgroup process. I tried to look across the matrix so if -- if people identify this kind of stuff it'd be helpful to -- especially work-other workgroup members. For instance, this said inappropriate procedures cited. In this
instance they went back to the workbooks and SC\&A realized oh, the calculation was done in the Excel spreadsheet workbook methodology and it -- it -- like the numbers work out fine. But that didn't -- didn't ring right with me when inappropriate procedure cited might still be true. They might still have cited the wrong procedure, so $I$ was unclear -- I was trying to make the matrix work all the way across, so -DR. ZIEMER: I understand. So --

MR. GRIFFON: Now there's some detail left, but --

DR. ZIEMER: -- need to resolve what the actual finding and --

MR. GRIFFON: Yeah.
DR. ZIEMER: Now one other thing, Board members, Mark has this matrix, as well as the matrix for the 3rd set, on a flash drive. And so if you would rather have it in electronic form now instead of paper form, I think we can -- you can pick it right off his flash drive today, which I've just done.

MR. GRIFFON: Save some paper, yeah.
DR. ZIEMER: Those of you who have your laptops with you, later in the week or in the breaks
you can get the document itself, just as you -as it was projected. Okay.

MR. GRIFFON: All three, for that matter, 2nd, 3rd and the procedures review are all -- all the same way.

DR. WADE: Just to be clear about documents, let's take the $2 n d$ set. We have Mark's matrix, and then Stu also has a matrix to offer which has the new column added to it. So I'll make both of those documents available to the Board members and the public.

DR. ZIEMER: And let's make sure they have a date on them and that they are somehow identified as drafts, and that -- make sure it's clear what they represent.

DR. WADE: And just from my point of view as Designated Federal Official, I think it's very important that we leave this meeting with an understanding of the exact steps we're going to follow trying to bring this to closure. I realize that we've been distracted by things that have demanded our time, but $I$ do think that some discipline is needed here to -- to bring the 2 nd set, the $3 r d$ set and the procedures review to closure as quickly as we
can. I think most of the heavy lifting is done. I think we need just the discipline to finish. And $I$ would like to -- to see workgroup meetings leading up to possibly a report out on our call in August, at worst at our face-to-face meeting in September.

MR. GRIFFON: Yeah, no, I -- I hope fully that we can close it out by August 8th, yeah. I -I think we can.

DR. ZIEMER: Okay. Any questions, Board members, on -- on the $2 n d$ set review?
(No responses)
Okay, what about the 3rd set? We also have a matrix on that, and is there a similar NIOSH matrix on the 3rd set? So everything we've said about the 2 nd set holds for --

MR. GRIFFON: We've got duplicates on everything, yeah.

DR. ZIEMER: And what do you want to tell us about the 3 rd set?

MR. GRIFFON: Well, you know, sim-- a very similar status. I don't know that there's much more to add, very similar status, Paul. We've got -- I've got some things that are highlighted yellow that $I$ still have questions
on. I've added the Board action ranking, but there's some items, like UR, indicates unresolved and -- you know, so there's some clarifications we need between SC\&A. And it may be just that $I$ didn't include -- or incorporate the latest update from SC\&A or NIOSH, so might -- you know, but we're very close on that one as well.

DR. ZIEMER: So we'll have a similar followthrough then where we will get copies of both the working group matrix, the NIOSH action matrix, with the anticipation that those two would be appropriately merged, with a recommended Board action as we talked about for the 2nd case.

MR. GRIFFON: Right. Right.
DR. ZIEMER: Is that agreeable, Board members?
Again --
MS. MUNN: Yeah.
DR. ZIEMER: Comments or questions?
MS. MUNN: Is it going to be possible for us to reformat this so that we get the whole single item on one page?

MR. GRIFFON: Were you able to fit it all the way across in the --

DR. WADE: Yes.
MR. HINNEFELD: Oh, yeah, we can -- the last column does fit on a page --

MS . MUNN: Good.
MR. HINNEFELD: -- and the font is at least as big as that one, so --

DR. ZIEMER: (Unintelligible) the four, but (unintelligible).

MR. HINNEFELD: -- but is your -- is your comment about the -- there's some of these fields that go pretty long down the page --

MS. MUNN: Yeah, and that's -- that's --
MR. HINNEFELD: -- so that's a --
MS. MUNN: -- that's no problem to me, but it occurred to me that if --

MR. HINNEFELD: To the right? Yeah.
MS. MUNN: -- a couple of those columns were -were made horizontal instead of vertical, then your new column would probably fit on all right.

MR. HINNEFELD: I think -- if -- I've -- I've got a note -- I've got copies with it on there and it's on -- with that extra column, and I've -- I've squashed some of these columns together a little bit. I think it -- I think it's
readable.
MR. GRIFFON: We can work with -- we can work with the formatting, too. I know what you're saying, yeah.

MS. MUNN: Good, 'cause it gets really difficult if you have to go to another page to see something.

MR. HINNEFELD: Right.
MR. GRIFFON: I think for instance we can write
"procedural" and "external" up in a --
MS . MUNN: Correct.
MR. GRIFFON: -- vertical fashion.
MS. MUNN: Yeah, that's what I was --
MR. GRIFFON: Yeah, yeah, I gotcha, yeah, we can do that. We have the technology, I think. DR. ZIEMER: Further comments, Mark, on the 3rd set then?

MR. GRIFFON: No, I think that's it. We're -we're -- you know, we've -- we've got a little more work to do but we're close to closing it out, so -- not much further, unless there's questions or comments from the workgroup -DR. ZIEMER: So we'll try to have hard copies of both of these available before you leave. MR. GRIFFON: Yeah.

DR. ZIEMER: May-- maybe even perhaps later today. If you want electronic copies, Mark has them on the flash drive. Very good. Thank you.

MR. GRIFFON: Or Paul has them on his laptop, too, so you could --

DR. ZIEMER: Yeah.
MR. GRIFFON: -- plug into your laptop, yeah, either way.

## COMPLETE PROCEDURES UPDATE

MR. MARK GRIFFON, WORKING GROUP CHAIR
MR. STUART HINNEFELD, NIOSH
DR. ZIEMER: Then the other item we have is procedures update. Mark, the workgroup is also handling that and can you give us the status of that?

MR. GRIFFON: Yeah, and that's -- you know, again, we have two sets of matrices I -- I'm finding out, so Stu's added an additional Board action column on that, as well. And -- let's see, these -- just one comment on these, I guess. On my matrix $I$ think $I$ have a lot less yellow on my matrix, which leads me to believe that there's a lot less as far as clarification. The only thing that should be noted is that a lot of time, and this'll show up in Stu's actions I'm sure, a lot of times
the procedures we reviewed -- since this is taking a fair amount of time and these were the earliest procedures -- a lot of times they've already been replaced and so they're -- they're -- some of these proce-- some of the action here says review the new procedure that took place of this old one or -- and the procedures are being recons-- you know, consolidated into a new procedure so $S C \& A$ is now undertaking reviewing those procedures. And hopefully we can keep that on a -- you know, a fairly -fairly good track so we don't run into the same situation where we're always two procedures behind, but -- I don't think that'll be the case, but -- so some of this stuff is like -sort of old news, in a way, but -- not that it wasn't important to go through, but...

The one thing $I$ do want to mention is that the on-- I think the only place I have any yellow on here is related to the CATI procedures, the telephone interview procedures. And I think a couple of those -- I had -- I jumped the gun a little bit saying that SC\&A and NIOSH agreed on the resolution, and in fact in the last two months or whatever it's been, I've received
comments back from SC\&A that -- that there were several of those that they still had some issues that needed to be discussed, so we have further resolution on -- on a few of the CATI procedure items, and you'll see them in this matrix when you guys get the update, but you know, there -- there's four or five of them. Closely related, but they're -- they're all about the -- the CATI or the closeout interview related to the CATI, those sort of things, so...

And that's about it on procedures review.
DR. ZIEMER: Okay. Questions on that? So we have a similar situation then --

MR. GRIFFON: Similar situation --
DR. ZIEMER: -- where we again need to merge -is this -- the matrix that you're showing here for procedures review one -- is this different than the last version that the Board had? MR. GRIFFON: The only -- let's see. There might be a few slight differences, yes, in the Board action column, so some minor edits in the Board action column -- including what $I$ just said about SC\&A basically did not agree on some of those that $I$ thought there was agreement --

DR. ZIEMER: Okay, so --
MR. GRIFFON: -- so some minor changes, yes.
DR. ZIEMER: -- so we do need copies of this then, as well, $I$ would say.

MR. GRIFFON: Yeah.
DR. ZIEMER: And then, again, do $I$ understand, Stu, there is a NIOSH version which has, again, an action column?

MR. GRIFFON: Yes. Yes.
DR. WADE: Yes.
DR. ZIEMER: So again, we'll look for that and then the procedure would be, again, to appropriately merge these, as we did for the individual cases.

Okay. Board members, any questions? Wanda.
MS. MUNN: I'm a little surprised to find that we still have enough outstanding issues on the procedures that we need to still maintain the matrix. I had -- I was under the impression that we'd just about cleaned this up. So I'm assuming that we only have one or two outstanding issues. Is that a valid assumption?

MR. GRIFFON: That's a va-- maybe four, Wanda, I'm - -

MS . MUNN: Okay.
MR. GRIFFON: -- I'm showing them. They're -they're in -- they're in yellow highlights -MS. MUNN: Okay.

MR. GRIFFON: -- so they'll be easy to pick up on your electronic form, but -- and they're all related to those last procedures that I mentioned, the CATI review.

MS. MUNN: Yeah, okay. We can do that.
MR. GRIFFON: Yeah. And many -- I -- I think they might even be related to one or two procedures. It's four findings, you know, but they're all related to the CATI process, the interview or the closeout process.

DR. ZIEMER: Okay. Further questions?
DR. WADE: I think it might be wise to -- I mean Hans and Kathy are with us now if they would like to make any comments. I mean they've been terribly influential in this process. Do you understand, Hans and Kathy, what the Board -- the subcommittee is talking about and where it's going with this? And do you have anything -- any wisdom to share with us that could make the journey less arduous? MR. GRIFFON: I'm -- I'm not sure that you --
you've -- have they received your version, Stu, of the expanded matrix with the new column on it?

MR. HINNEFELD: No, that was --
MR. GRIFFON: Yeah.
MR. HINNEFELD: I put that together -- just so everybody understands, we were asked a couple of Board meetings ago --

MR. GRIFFON: Right.
MR. HINNEFELD: -- about well, what is NIOSH -you know, NIOSH has all these recommendations and how are we going to keep these resolutions in front of us. You know, how -- how are we going to know what's been done as a result of all this stuff. And so $I$ said well, I'm -- you know, how are we going to -- I said -- and I think $I$ promised that $I$ will come up with a method for identifying what's going to happen and then -- so we can close out resolution. So that's why I stuck that extra column on there --

MR. GRIFFON: Right, right.
MR. HINNEFELD: -- was to be able to track completion and resolution of -- that's come out of this process. So it was -- you know, I
think -- $I$ could -- you know, here are the actions. I -- you know, we've got a list of the actions. You can tie them back to the various findings that -- that they relate to. So that's why I put mine together, and it wasn't clear to me that we were going to enter that part of the process today or -- or later or what, and -- and $I$ don't think, Mark, I've seen necessarily all the yellow highlighted -the latest version with the yellow highlights. Isn't that true?

MR. GRIFFON: No, no, you've got --

MR. HINNEFELD: So --
MR. GRIFFON: So we're both, yeah --
MR. HINNEFELD: So we're --
MR. GRIFFON: We both did this kind of --
DR. ZIEMER: Now actually --
MR. HINNEFELD: -- (unintelligible) --
MR. GRIFFON: -- in the last three or four days, yeah.

DR. ZIEMER: -- actually Stu's comment triggers, in my mind, a question. And that is -- what Stu has described is really sort of a follow-up on our whole process. And it seems to me we could think in terms of having our
matrix and closing it. And then Stu's -- what Stu's talking about is simply tracking for us what's happened since the matrix. So now I have a question in my mind as to whether or not we really want to merge the matrices, as opposed to saying here's our matrix, we finish it up. Stu can update his as -- if there's any changes in ours. But that's sort of their matrix reporting how they're reacting to our action. That's -- that's -- I'm seeing it a little differently now. Wanda.

MS. MUNN: Thank you, Dr. Ziemer, that's the way $I$ was seeing it at the time we had discussed it earlier. The engineering mind was seeing a, quote, deficiencies list. You know, what's still outstanding, yet to be done, rather than a continuation of the matrix. These two matrices are extremely difficult -for me, as a working group member -- to manipulate. There's just too much stuff in there and, in my mind, we've cleaned out virtually all of it. So Stu's short list that we have here, the one-pager, is much more in line with what $I$ personally had in mind in terms of a tracking mechanism, rather than
maintaining this long matrices -- or matrix.
MR. GRIFFON: I appreciate that, but I think Stu's middle matrix is the -- we can't skip that middle step. I think we have to come to grips to make sure that -- that what we envisioned as actions, the workgroup members and SC\&A -- everybody's in agreement that the right actions are coming out of that matrix. And then once you have the final actions, I agree, you track them separately and --

MS. MUNN: Right.
MR. GRIFFON: -- the matrix is put to sleep, you know.

DR. ZIEMER: Well, what -- what I -- what I'm saying is $I$ think that Stu's actions in a sense rightly are to the -- at the end of the matrix, after the Board action list --

MR. GRIFFON: Yeah.
DR. ZIEMER: -- as opposed to part of the NIOSH response.

MR. GRIFFON: Right. Right, I agree with that.
MR. HINNEFELD: Right.
MR. GRIFFON: Yeah.
MR. HINNEFELD: Right.
MR. GRIFFON: Yeah, that makes sense.

DR. ZIEMER: So I'm actually envisioning -- as -- as opposed to a merger of our documents, I'm -- I'm -- I'm envisioning now -- this is for the 2 nd 20 and the $3 r d 20$ cases plus this -our regular matrix with our action. Then stu turns around and -- and says here's what we've done with your matrix, and that's their action. That's how I'm -- but let's get feedback from others if -- if you want to merge it in some way other than that.

MR. GRIFFON: I -- I -- I'm just wondering, it -- you know, not having seen these actions, I'm just wondering if, when they come back with a new mat-- this -- this new report, which -which -- you know, I've gotten hard copy today, but I haven't looked at it, then -- then am I going to have to -- like if $I$ go down this and say wait a second, I thought they were going to do this out of this ma-- am I back to the workgroup and working through these things again or --

DR. ZIEMER: I think that can occur.
MR. GRIFFON: Yeah.
DR. ZIEMER: But in a sense, we -- we have the response. We have to take a -- we take a Board
action.
MR. GRIFFON: Yeah.
DR. ZIEMER: Once he tracks and says here's how we responded, we can certainly say well, that's a dumb response, why don't -- you know, why --

MR. HINNEFELD: That's likely to happen.
DR. ZIEMER: We wouldn't say that.
MR. GRIFFON: Right.
DR. ZIEMER: We might think that. But in -but in fact, it's sort of -- we -- we ask for accountability. How do we know that in those cases where it looked like something remains to be done and we -- everybody agrees yes, that's going to be done. You're basically reporting back, here -- here's the follow-up.

MR. HINNEFELD: Right.
DR. ZIEMER: Well, okay, we may --
MR. GRIFFON: I guess that's -- yeah.
DR. ZIEMER: -- need to --
MR. GRIFFON: I guess that's okay. We'll -we'll -- we'll definitely consider it in the workgroup process. I mean the -- the only hesitation $I$ have is that if -- you know, if you're in the middle of the -- the resolution and we're all -- we're all thinking well, this
is -- this is resolved and I'm -- I'm in agreement with it because NIOSH is going to do this, so we're all in agreement with it, and then it turns out their -- their action doesn't propose to do that, so -- but I think -- I think --

DR. ZIEMER: Well, either way, we --
MR. GRIFFON: Yeah.
DR. ZIEMER: -- it's still a follow-on thing, but --

MR. GRIFFON: It's still a follow-on, yeah. DR. ZIEMER: -- in a certain sense we need to close the matrix.

MR. GRIFFON: Right, $I$ know what you're saying.
DR. ZIEMER: Then we start looking at responses. Okay. Well, the workgroup can take that into consideration, I --

MR. GRIFFON: Yeah.
DR. ZIEMER: -- on all three of these as we proceed.

DR. WADE: A couple of comments. I think also once you get the NIOSH actions, tracking them in this kind of a form is useful 'cause, as Wanda said, the matrix -- matrices become very unwieldy. So a summary report that will let us
look at what NIOSH has committed to do, as verified by the working group, and then keep track of that $I$ think is important. If you remember, the GAO report talked to us about putting in place tracking mechanisms, and $I$ think this is an attempt to build such a tracking mechanism.

MR. HINNEFELD: Right.
DR. ZIEMER: Board members, any further comments or questions regarding the procedures update?
(No responses)

Thank you, Mark.
MR. GRIFFON: And I guess we'll be in touch to schedule workgroup meetings soon to -- 'cause I agree with Lew, $I$ do want to close this out. We've been at this for a while and let's get it done while it's fresh in our minds.

DR. LOCKEY: Well, I have one question.
DR. ZIEMER: Yes.

DR. LOCKEY: With NIOSH's -- in this matrix here, NIOSH has a response. That doesn't prevent NIOSH from taking preliminary action before the Board sees that. Is that correct?

MR. GRIFFON: That's -- I mean --

DR. ZIEMER: I believe that's correct.
MR. GRIFFON: I think --
DR. ZIEMER: Of course --
MR. GRIFFON: -- they've been doing that, yeah.
DR. ZIEMER: -- in cases where it's fairly straightforward, there'd be no reason to -- for example, if a -- if it was clear a procedure was out of date or wasn't -- was no longer being used and -- and the response is we're using a new procedure or something, I don't think we would expect them to sit around waiting for us to say okay, use your new procedure.

Now it -- it's quite possible, I guess, in -in some case, that they may proceed to make some change that we later think was not the right change, but $I$ think in most -- most of these cases it's things that they say yeah, you noticed that, but we're not doing that anymore anyway. It's sort of like that.

MR. GRIFFON: Well, $I$ don't think that's always the case, but --

DR. ZIEMER: No, no.
MR. GRIFFON: -- yeah, there are -- there is some of that, certainly.

DR. ZIEMER: And there -- there's -- there's really nothing that prevents NIOSH from --

MR. GRIFFON: No.
DR. ZIEMER: -- doing a course correction if something's brought to their attention and they agree that it should be corrected --

MR. GRIFFON: No, certainly not.
DR. ZIEMER: -- before we even, you know, bless it, as it were.

MR. GRIFFON: I think TIB-8 and 10 are a good example. Right? You've proceeded with those, so -- yeah.

MR. HINNEFELD: Right, those -- the clarifying revisions to $T I B-8$ and 10 have been done.

MR. GRIFFON: Have been done, yeah, so that's -- yeah.

DR. ZIEMER: Go ahead, Lew, I -

## DISCUSSION OF SUBCOMMITTEES AND WORKING GROUPS

DR. WADE: Well, we have some time, and I -- I would suggest that maybe we have a preliminary discussion of the interaction between working groups and subcommittee and full Board. It's on the agenda for our meeting, but $I$ think as we sort of evolve down this path, we have a number of things that are ongoing. And I think
the relationships of those things and the staging and sequencing of those things really need to be talked about.

I'll remind you you have the full Board, and then you have a subcommittee that looks at dose reconstructions, procedures reviews and site profile reviews. That subcommittee generally is made up of the entire Board, less a member or two, depending upon travel schedules. And then you -- you now have a -- a -- an array of workgroups.

You have a workgroup that Mark chairs that looks at dose reconstructions, site profiles and procedures reviews. You also have a workgroup that Dr. Melius chairs that looks at generic SEC issues. And then you've formed a number of workgroups that look at specific site issues as it relates to site profiles. So I just think it's important at this meeting that we think about those things and the relationships between those things, and that we talk a little bit about optimizing our procedure.

The other issue that sort of cuts across that is an issue that everything comes at the
eleventh hour, and that makes the process difficult to administer, and we need to talk about that, as well. Now I don't think we're going to finish that discussion today, but since we have some time $I$ think it's worth starting to frame it anyway, leading up to our discussions on Friday.

DR. ZIEMER: Good point. I would point out, it's about -- it's about quarter of, I'm not sure exactly what the eating arrangements are. We need to be back here at 1:00 and we want to make sure people have time to eat and reassemble. There -- there at least is something here in the hotel, and there are other places around. Do we have information on eating facilities or -- are we going to -- I'm -- I'm sort of asking is an hour going to be sufficient here for getting food or are we -are we calling it close?

DR. WADE: In -- $I$ think short of a major sitdown meal at $a$-- at a restaurant, $I$ think you can do it in an hour. If you want to take the extra 15 minutes, we could do that and try it out today and see what the time does.

MS. MUNN: Might be a good idea for those of us
who are not familiar with what's around here. DR. ZIEMER: Okay. Just -- let me follow up a minute on -- on Lew's comments. As far as working groups and subcommittees and -- I'll point out -- or remind you that a subcommittee has to be chartered. Its meetings have to be announced in the Federal Register. It is an open meeting. It follows precisely the same kinds of rules as the full Board.

Working groups are ad hoc. That is, they address a specific topic. It is not required that they be publicly announced, nor are they required to be open to the public, although our practice has been both to announce them and to make them open to the public, as well. But as a practical matter, as -- as I see us going forward, $I$ think the idea of having a subcommittee which -- whose membership consists of the full Board, which is this subcommittee, is going to become more and more impractical. Now we might be better served to, for example, use the half-day for workgroups to meet -smaller subsets meet on specific topics, whether it be dose reconstruction, whether it be an SEC -- some of us now have SEC leads and
so we have -- we have teams that are having specific assignments, all of which tend to be ad hoc. If you're talking about an SEC petition with a team having the lead, that's an ad hoc thing that addresses that particular issue.

So what I'd like you to think about is how we structure, if we are going to have a large number of these teams going forward, and then how to utilize our time at full Board meetings. Can we set aside times for the subgroups and teams to meet. Do we really need to have a subcommittee that consists of virtually everybody on the Board. So those are the kind of issues that we need to discuss and we can talk a few minutes, but we --

MR. GRIFFON: The only thing -- I mean $I$-- I have had a little bit of time to think about this since I've been in the middle of these workgroups a lot, but $I$ mean $I$ never envisioned, when we first constructed the subcommittee, that it was going to be a subcommittee of the whole. Somehow it became that. $I$-- I mean $I$ think it might be useful to have workgroups for ad hoc SEC petitions, as
you said, and -- and probably site profile reviews. But maybe to think of a subcommittee for the standing function of dose reconstruction review, the cases and the procedures -- just a thought. I mean --

DR. ZIEMER: Right.
MR. GRIFFON: -- it might be better, 'cause that's a ongoing function and -- and have it be a real subcommittee --

DR. ZIEMER: Right.
MR. GRIFFON: -- instead of a subcommittee of the whole.

DR. ZIEMER: And actually initially that was the concept, and what was done to sort of facilitate that was we said well, we're never sure who is available at a given time to do that function, so we would name everybody so that -- and you could use any of them. Well, then when the subcommittee meets -- as we are now -- then everybody is -- shows up, rather than having a designated group with alternates. So another possibility would be to have the subcommittee have designated, regular persons. You know, it'd be Mark and Bob and -- whoever's on that. And then everybody else is an
alternate, and they don't -- they could show up, but they don't need to unless somebody else is going to be absent.

MR. GRIFFON: And I think actually we did have designees --

MS. MUNN: I thought we did.
MR. GRIFFON: -- in the first version, didn't we?

MS. MUNN: Yeah, I thought we did.
DR. ZIEMER: We did --
MR. GRIFFON: And then we said everybody was sort of alternates --

DR. ZIEMER: We did, but -- but then the alternates all wanted to show up, so --

MR. GRIFFON: Which is fine, yeah.
DR. ZIEMER: -- we have defaulted and -- ending up with almost the full Board attending the subcommittee meetings, so that's -- that's sort of how it's evolved. And -- and it would certainly be possible to -- and maybe desirable, and we will talk about this in full Board meeting later this week, to have one or two, maybe three, specific subcommittees whose ongoing focus is something like dose reconstruction reviews or procedures reviews,
whatever it may be, identify the individuals -those have to be chartered, by the way. They have to go up through the system, they have to be approved by HHS and so on. So there's a bit of -- more formality in doing a subcommittee versus a workgroup, which we can do on an ad hoc basis. The Chair can appoint people on short notice and we can proceed like that. Roy DeHart.

DR. DEHART: The only comment that I would have personally with the subcommittee that -- as it's become, is tied to transportation and travel. By that I mean frequently I have to travel the preceding night. I'm already here and it's really convenient to come in and be a part of the subcommittee, and sometimes I need to hear it twice, to be perfectly honest. But if -- if we change the way the meeting was organized and perhaps put the subcommittee at the end -- but unfortunately, much of the work is -- is programmed into the actual Board meeting, so that's very difficult to do.

DR. ZIEMER: Mark.
MR. GRIFFON: I know we're probably going to want to break for lunch soon, but I guess one
thing that $I$-- in terms of efficient use of our time, I find sometimes I am preparing just to present something -- an update on this matrix, for instance -- when actually $I$ would have loved to have three hours this morning with a smaller group going through item by item. And $I$ know it doesn't lend itself well to a --

DR. ZIEMER: To a large group.
MR. GRIFFON: -- to a larger group. So if we had a smaller subcommittee and those that are really interested can still -- you know, it's open to the public, certainly, but we could go through line by line and start doing that -that hard work of -- and tedious work of editing each and every line item. You know, that -- that's what $I$ was thinking of.

DR. ZIEMER: Thank you. Wanda Munn.
MS. MUNN: This is probably one of the most sticky wickets that we have to deal with in terms of internal activity. And there are a couple of issues that make it very difficult. One is the overlap of personnel in various subcommittees and working groups.

And the other is the issue that's already been
addressed with respect to the last-minute activities. We -- I don't know how we're ever going to be able to get around that last-minute issue because there's the continual opposing pressure of needing to move these activities forward in a timely manner and at the same time trying to give them the thorough overview that they need. We're always going to end up in this last-minute process, unless we all agree that we're going to push the length of our activities out considerably further than we see them now.

With respect to the possibility of subcommittees as opposed to working groups, I guess having seen both in action -- although our subcommittee really has expanded considerably from what $I$ first thought it was. For example, $I$ don't consider myself a part of the subcommittee. I'm here as -- because I'm an alternate and have to travel all day to be here anyway. But working groups are ideal in terms of resolving the issue, far more so than subcommittees, simply because first of all one needs to -- very quickly sometimes -- involve more personnel, especially our contractor
personnel and OCAS or ORAU. When we need to have them involved to resolve the issue, then working groups have the flexibility to be able to pull them in quickly. Getting them all to a subcommittee meeting or something that had to be announced so far in advance is really problematical sometime, I believe.

MR. GRIFFON: I don't know that there's that much a difference anymore. I mean we -- we've -- we have the working groups all open to the public. I don't know, is there a Federal Register notice that's -- that's going to make this a (unintelligible) --

DR. ZIEMER: It's not required.
MS. MUNN: No, it's not required.
DR. WADE: The way we do working groups is we don't Federal Register notice them. We send out a mailing to interested parties. We post a notice of the meeting on the web site. We take -- we have them fully transcribed and minutes developed, so the only difference is that we don't issue a Federal Register notice, and that's because a Federal Register notice can take three weeks --

MS. MUNN: Yes.

DR. WADE: -- and we often don't have three weeks.

MR. GRIFFON: Three weeks?
MS. MUNN: Yes.
MR. GRIFFON: I thought that could be done in a week or so.

DR. WADE: It can be done in a week, but you can't do it often in a week.

MS . MUNN: No.
DR. WADE: The system will push back. That's the only change that we've made between the two. I think the open process has served us well, frankly.

MR. GRIFFON: The only reason $I$ think for the -

- the dose reconstruction review, you know, it's this idea of -- of it's -- it's not an ad hoc, it's an ongoing process --

DR. ZIEMER: Right.
MR. GRIFFON: -- so I think we have to -- you know, to abide by -- you know, our own rules.

I think we have to consider the subcommittee for that.

DR. ZIEMER: If it's an ongoing process, it has to be a subcommittee.

MR. GRIFFON: Yeah, right. And it doesn't --
the subcommittee can certainly meet in Cincinnati, $I$ think. It doesn't have to be tied to these Board meetings every time. We can --

DR. ZIEMER: That's correct. That's correct.
MR. GRIFFON: -- you know, have a meeting in Cincinnati where we had access to staff and -MS. MUNN: Uh-huh.

MR. GRIFFON: Yeah.
DR. ZIEMER: Well, that's food for thought. We'll -- we'll return to this on our -- in our discussion. We do need to recess. Lew?

DR. WADE: One more issue to put on the table to think about and that is our friendly court reporter. Our process has evolved to the point that there's tremendous demands on that individual and his staff, and that creates some time impacts in terms of availability of materials, so it's -- you know, we're dealing with a relatively fixed-sum resource and a high quality resource, and you need to realize that there are those impacts, as well.

DR. ZIEMER: Thank you. Let's now recess for lunch. We'll reconvene as a full Board at 1:00 o'clock. Thank you.
(Whereupon, business was concluded, and the Subcommittee was adjourned at 11:55 a.m.)

## CERTIFICATE OF COURT REPORTER

## STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of June 14, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that $I$ am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 8th day of July, 2006.

```
STEVEN RAY GREEN, CCR
CERTIFIED MERIT COURT REPORTER
CERTIFICATE NUMBER: A-2102
```

