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

convenes the

TWENTY-SIXTH MEETING

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

VOL. II

The verbatim transcript of the Meeting of the Advisory Board on Radiation and Worker Health held at the Shilo Inn Suites, 780 Lindsay Boulevard, Idaho Falls, Idaho, on August 25, 2004.

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C O N T E N T S

Legend of the transcript:

[sic]	Exactly as said
[phonetic]	Exact spelling unknown
--	Break in speech continuity

P A R T I C I P A N T S

(By Group, in Alphabetical Order)

BOARD MEMBERS

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Professor Emeritus
School of Health Sciences
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MEMBERSHIP

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Miamisburg, Ohio

GRIFFON, Mark A.
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Creative Pollution Solutions, Inc.
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MELIUS, James Malcom, M.D., Ph.D.
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PRESLEY, Robert W.
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ROESSLER, Genevieve S., Ph.D.
Professor Emeritus
University of Florida
Elysian, Minnesota

AGENDA SPEAKERS

(in order of appearance)

Dr. Jim Neton, NIOSH
Mr. Russ Henshaw, NIOSH
Dr. Paul Ziemer, Chair

STAFF/VENDORS

Cori Homer, Committee Management Specialist, NIOSH
Steven Ray Green, Certified Merit Court Reporter

AUDIENCE PARTICIPANTS

ANDERSON, BETTY A.
BEATTY, EVERETT RAY
BODNAR, LOUIS Z.
BRAILSFORD, BEATRICE
BRANDAL, LYNDA
BRASWELL, TODD
CASE, DIANE L.
CHANG, C.C.
CODDING, SHIRLEY
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ELLISON, CHRIS
FRY, DAVID
HEISTER, MELANIE B.
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HOSS, LARRY A.
JENSEN, CLINTON
JONES, BERTHA
KATZ, TED
MCCURDY, PEGGY
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OSTROW, STEPHEN L.
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PETERSON, HENRY K.
POWELL, STEVE
PRESLEY, LOUISE S.
QUINN, JOHN D.
RICH, BRYCE L.
RINGEN, KNUT
ROCKWALD, LYNN
ROHRIG, NORMAN
SCHAEFFER, D. MICHAEL
SCHAUER, DAVID
TENFORDE, THOMAS S.
TOOHEY, R.E.

P R O C E E D I N G S

(8:30 a.m.)

REGISTRATION AND WELCOME

DR. ZIEMER: Good morning, everyone. We'll reconvene for the second day of this Board meeting.

ADMINISTRATIVE HOUSEKEEPING

We have a number of administrative matters to take care of. I think if Cori is here -- Cori, let's start out with the information on our next meeting and make sure everybody has the time and date and location. You may recall originally we thought we were going to be headed to Washington, D.C., but actually could not find a hotel there, so we went to Plan B. So Cori will tell us about Plan B.

MS. HOMER: Okay.

DR. ZIEMER: Which, for some, was Plan A, actually.

MS. HOMER: Okay. I think some of you are already aware, we'll be meeting in San Francisco in October. There were -- there was no room at the inn, so to speak, in Washington, due to the elections. And we will be staying at the Westin St. Francis. I've reserved three days,

one for the subcommittee meeting and two for the full Board meeting, for the 19th, 20th and 21st. It'll be up to you to decide which of those days will be for the full Board and the subcommittee, as I haven't made final arrangements for that. The contract was just signed last week.

DR. ZIEMER: I think the subcommittee will have to go on the day before the Board meeting --

MS. HOMER: I believe so.

DR. ZIEMER: -- so we'll put that on the 19th and then the Board on the 20th and 21st.

MS. HOMER: Okay.

DR. ZIEMER: Huh? Right?

DR. ANDERSON: Yeah. I mean just so you know, the Board of Scientific Counselors for NIOSH meets on the 21st, so I won't be able to be there. I had us down for the -- Monday, Tuesday, Wednesday.

DR. ZIEMER: What -- the 19th is a Tuesday?

MS. HOMER: It's a Tuesday. I was trying to avoid folks flying on weekends.

DR. MELIUS: The 21st is bad for me then, too, if I'm still on. I don't know if my

term's up or what's going on.

DR. ZIEMER: Are people willing to fly on the 18th if --

DR. ANDERSON: Well, the 18th would be the subcommittee.

DR. ZIEMER: I mean on the 17th. But we don't know about availability at the hotel at this point. Right?

MS. HOMER: I can check and see if we can rearrange those dates, if I can renegotiate the contract.

DR. ZIEMER: Do we lose two of you on the 21st? Is that -- but everybody's okay if we went 18, 19, 20? Could you check on that then?

MS. HOMER: I'll check into it and get back with you.

DR. ZIEMER: Let's see if -- we'll see if we can get that modified.

MS. HOMER: Okay.

DR. ZIEMER: Thank you very much. Okay, go ahead.

MS. HOMER: All right. Now the following meeting -- I'll put Washington, D.C. on the top of the list and see if we can arrange that, but I'll need some dates for the meeting

following the October meeting.

DR. ZIEMER: We're at mid-October.

MS. HOMER: Uh-huh. Do we want to try for late November?

DR. ZIEMER: We're probably going to get into December, at the earliest, it's -- I would suspect.

MS. HOMER: Okay. Well, there's the 1st, 2nd and 3rd of December. December 1st, 2nd and 3rd?

DR. ZIEMER: Well, let's -- let's check the December dates. I'm out of the loop 1st, 2nd and 3rd.

MS. HOMER: Okay.

DR. ZIEMER: How about the week of the 6th? Out all week?

MS. HOMER: Gen is out?

DR. ROESSLER: (Off microphone) Well, until the 9th.

DR. ZIEMER: Again, we're now looking for -- well, we can still go two days, depending on who's on the subcommittee.

MS. HOMER: Uh-huh.

DR. ZIEMER: Right.

DR. DEHART: The week of the 13th?

DR. ZIEMER: 9th and 10th are out? 9th and 10th are okay?

DR. DEHART: The 10th isn't for me.

DR. ZIEMER: The 10th is not. Okay. Let's kind of keep track of -- the 10th we would lose one person?

DR. MELIUS: Lose two.

DR. ZIEMER: Lose two, okay. Let's look at third week, 13th -- week of the 13th. Let me just go through the --

MR. ESPINOSA: (Off microphone) I'm out on the 17th.

DR. ZIEMER: Okay, Rich is out on the 17th.

MR. ESPINOSA: (Off microphone) Actually 16th and 17th.

DR. ZIEMER: Sixteen and 17 out -- 13, 14, 15?

MS. HOMER: Looks good?

DR. ZIEMER: Thirteen, 14, 15?

MS. HOMER: Okay. How about an alternate? Is that --

DR. ZIEMER: Tentative, December 13, 14, 15 in D.C. Let's look at a fall-back...

MS. HOMER: Yeah, alternate location.

DR. ZIEMER: I'm going to assume the week of the 20th is probably not very good.

MS. HOMER: Huh-uh.

MS. MUNN: That's a good assumption.

DR. MELIUS: But nobody has meetings on the 24th and 25th, so they're free.

DR. ZIEMER: The week of the 27th? A sufficient number of groans that -- okay, now we're into January. Week of --

MS. HOMER: The 3rd?

DR. ZIEMER: Week of January what?

MS. HOMER: January 3rd?

DR. ZIEMER: Week of January 3rd.

DR. ANDERSON: I have a conflict on the 5th.

DR. ZIEMER: I do, too -- 6th or 7th?

DR. ANDERSON: 6th I do.

DR. ZIEMER: Conflict?

DR. ANDERSON: Yeah, 5th and 6th.

MR. ESPINOSA: We're talking about D.C. on this. Right?

DR. ANDERSON: Yeah.

DR. ZIEMER: Let me check again. January 3rd and 4th? 5th? 3rd, 4th and 5th?

DR. ANDERSON: I've had -- the 5th is a

problem.

DR. ZIEMER: 5th is a --

DR. ANDERSON: 5th and 6th.

DR. ZIEMER: Actually I have a conflict on the 5th, also.

Week of the 10th.

MR. ELLIOTT: 10th, 11th and 12th is not good.

UNIDENTIFIED: (Inaudible)

DR. ZIEMER: In where?

MR. ELLIOTT: She's saying in January before the inauguration --

DR. ZIEMER: Oh, before the inauguration.

MS. HOMER: The week of the 17th? Is that okay -- 24th?

UNIDENTIFIED: 24th is fine.

MR. ESPINOSA: Are we stuck to D.C.?

DR. ZIEMER: 24?

MR. ESPINOSA: Can we --

DR. MELIUS: I've got a conflict the week of the 24th.

MR. ESPINOSA: Can we select an alternate location, too?

MR. PRESLEY: That's what I was going to

say, if we couldn't -- if we can't make D.C. the 13th, 14th and 15th, can we select an alternate location, go to Cincinnati that week or something?

MS. HOMER: Well, would you consider something a little more southern, because it's winter? It might make it a little easier for travel.

DR. ZIEMER: That probably will work better to have an alternate location rather than an alternate date, it appears. Otherwise you're going to get into February and it's too long.

MR. PRESLEY: That's too long.

DR. ZIEMER: Okay.

MS. HOMER: Amarillo has come up.

DR. ZIEMER: Amarillo, Pantex.

MR. PRESLEY: Amarillo --

MS. HOMER: And Savannah is a possibility.

MR. PRESLEY: Amarillo, the weather's as bad there as it is --

DR. ZIEMER: Yeah.

MS. MUNN: Savannah's nice.

DR. ZIEMER: Savannah is not really near the Savannah River Site. It's a nice place, but

if you want to go near the Savannah River Site, you almost have to go to Aiken.

MS. HOMER: Or Augusta.

DR. ZIEMER: Or Augusta.

DR. ANDERSON: We did that.

MS. HOMER: How close is Amarillo to the Pantex plant?

DR. ZIEMER: Well, that's the -- that's the town.

MS. HOMER: Is it? Okay. Would you like --

DR. ZIEMER: It's in the panhandle of Texas. It's not southern weather.

MS. HOMER: Well, we could consider New Mexico again. We could do --

MR. ESPINOSA: I second.

DR. DEHART: There is the bonus* reactor plant in Puerto Rico.

MS. HOMER: Oh, I'm all for Puerto Rico.

DR. MELIUS: There's also Amchitka.

DR. ZIEMER: I don't think you're going to have many claimants from Puerto Rico. If we go to Amarillo, I'm not sure you're going to get a tour of the Pantex plant. It's probably unlikely, but you might get some -- how many

claims do we have from Pantex? Do we -- there's a worker group there that we could interact with. That would be the main reason for going to Amarillo would be to interact with the worker groups there. But I think we could find a better time of year for Amarillo, frankly --

MS. HOMER: Think so?

DR. ZIEMER: -- if -- it can be pretty harsh.

MS. HOMER: Well, there was a list originally developed from some suggestions from Board members of locations to go. We've been to almost all of them. Nashville is still on the list, Albuquerque we haven't been -- we've been into the area, but not specifically.

DR. ZIEMER: Why was Nashville on the list?

MS. HOMER: I'm not sure.

MR. PRESLEY: There's two places close to Nashville. You've got Clarksville. I don't know how many claims we've got from up there, but that's close to Paducah and Clarksville.

DR. ZIEMER: What's the closest large city to Paducah?

MR. PRESLEY: St. Louis.

MR. ELLIOTT: Evansville.

DR. ZIEMER: You can't get to Evansville from anywhere. Dick?

DR. TOOHEY: (Off microphone) (Inaudible) considered Tampa for the (Inaudible) plant down there?

MS. HOMER: Do we have work down there?

DR. ZIEMER: Pinellas had almost no radioactivity in their site. They did timers and things. Did --

MR. ELLIOTT: Tritium is it.

DR. ZIEMER: Yes, they did have tritium. Do you have claimants from Pinellas?

MR. ELLIOTT: Yes, we do.

MR. PRESLEY: We do have claimants?

MS. HOMER: Oh, a Tampa area --

DR. ZIEMER: Well, then that would be a good --

MS. HOMER: Okay, I'll put Tampa as an alternate.

DR. ZIEMER: Yeah.

MS. HOMER: You'll be okay with Tampa? Okay. I'll bet I can get hotel space real cheap right now.

DR. ANDERSON: Do we want to pick a

February date?

DR. ZIEMER: Actually, for worker outreach, Tampa might be a better selection anyway than D.C. --

MS. HOMER: Would you like me to put that on top of the list?

DR. ZIEMER: -- wouldn't it?

MR. ELLIOTT: It's your choice. I just want to know -- I want to -- I'm lost here. Are we talking about December?

MR. PRESLEY: December.

DR. ZIEMER: December.

MS. HOMER: Okay. So you want Tampa on top of the list as opposed --

DR. ZIEMER: How many prefer Tampa for the December meeting? How many prefer D.C.? Five. I actually prefer D.C. Okay, I think we're going to stay with D.C. for --

MS. HOMER: Okay.

DR. ZIEMER: -- and Tampa's Plan B.

MS. HOMER: Okay. Do we want to schedule a February meeting?

DR. ZIEMER: Let's -- let's find some dates for February, we'll finish that up. First week of February, week of February 1st? Bad

days?

DR. ANDERSON: Tuesday. I could change it -- a dentist appointment.

DR. ZIEMER: Oh, that doesn't count. Any conflicts the first week of February?

MS. MUNN: Are you talking about 1, 2, 3, 4 or the 7th?

MS. HOMER: 1, 2, 3, 4.

DR. ZIEMER: That was 1, 2, 3, 4. How about the week of the 7th? Any conflicts week of the 7th?

DR. MELIUS: The latter part of that week is bad for me.

DR. ZIEMER: But 7, 8, 9 is okay?

DR. MELIUS: 7, 8, 9's okay.

DR. ZIEMER: Is 10 not good?

DR. MELIUS: 10 and 11 are bad.

DR. ZIEMER: Okay.

MS. MUNN: 1, 2, 3, 4 is okay?

DR. MELIUS: 1, 2, 3, 4 is okay, too.

MS. HOMER: Okay.

DR. ZIEMER: 1, 2, 3, 4 is -- February, first week of February?

DR. MELIUS: Tampa?

MS. HOMER: Yeah, I'll use the primary

and the alternate location selections you've made.

DR. ZIEMER: Incidentally --

MS. HOMER: One'll be --

DR. ZIEMER: Incidentally, that first week of February would include January 31st. I think that's one day of that week. Any conflicts on the 31st, so that's included as the... Okay, we'll see what's available --

MS. HOMER: Uh-huh.

DR. ZIEMER: -- that week. Maybe -- which -- depending on whether D.C. or Tampa works out, then we can use the other one for the --

MS. HOMER: That's correct.

DR. ZIEMER: Okay, very good. Thank you.

MS. HOMER: Okay.

DR. ANDERSON: So which -- which days? The start of the first of the week?

DR. ZIEMER: She's got to check on hotel availability. That will influence it.

DR. MELIUS: Cori, could I ask you -- that when we switch locations like we did for the next meeting or as soon as you pin down the dates, let us know --

MS. HOMER: I'll let you know.

DR. MELIUS: -- 'cause I heard by rumor and I -- it really disrupted --

MS. HOMER: It wasn't too much before you asked me, actually --

DR. MELIUS: No, I know, I know, but --

MS. HOMER: -- that I had booked it, so --

DR. MELIUS: I underst-- but I'm just saying in -- also if we keep a whole week open, then calendars fill up and --

MS. HOMER: Okay.

DR. MELIUS: -- as soon as we can pin down the actual dates, it's helpful.

MS. HOMER: Okay.

DR. ZIEMER: Okay, thank you. Cori has some additional --

MS. HOMER: I do.

DR. ZIEMER: -- things for us.

DR. MELIUS: And I will speak to the Chair of the Board of Scientific Counselors for NIOSH about his scheduling, also -- not letting us know about meetings.

MS. HOMER: To move on to other issues, for those of you that still have vouchers

outstanding, if you have not sent me voucher information this year or I'm waiting on signed vouchers, you need to forward those to me as soon as possible. We have fiscal year closeout, and it's a little earlier than usual this year. So if I haven't received any information from you by early September, I'm going to close out your voucher based on what information I have available.

In the future, travel orders and vouchers are going to be forwarded to you via e-mail. It's something that's been available for a while and I think some of you have sent that information when we're short of time. But it seems to be so much easier than Federal Expressing the materials to you. And I think all of you have the expense sheets by e-mail. If you don't, I'll be more than happy to send those to you.

I will keep a stock of return envelopes on hand, so just see me if you need them so that you can mail your vouchers back to me without having to pay for your postage.

Also, because we are --

MR. ELLIOTT: I need to reinforce that.

If you don't get your vouchers in, we're going to be pestering you.

MS. HOMER: Oh, yeah.

MR. ELLIOTT: Because I can't let Cori just finish them out without -- with whatever information she has. We will be pestering you. We do have to close out by the end of this fiscal year, and they've upped the time for closeout -- instead of first of September -- right? It's --

MS. HOMER: I think it's the first of September.

MR. ELLIOTT: First of September now is the cutoff, so we have to get this done by the first of September.

MS. HOMER: Uh-huh. Because, again, of the short time frame for fiscal year closeout, I need to get your time as soon as possible. So we're going to go back to the old system we used to use; just write down your time, broken out by preparation -- subcommittee, for those that served on the subcommittee, preparation; and work group for those that served on the work group, so Larry can sign off on that and give it to me today and I'll be able to submit it on Monday when I'm back in the office, make sure that y'all

get paid.

Now for tour attendees for the tour of the Idaho National Engineering and Environmental Lab tomorrow morning, we need to be ready, in the lobby, by about 7:00, 7:05 a.m. They'll be sending a van by to pick us up. We'll be going to the local facility for a movie -- well, most of you I think have seen the agendas. If you haven't, I have them on file in back. If you ask me for one I'll be more than happy to provide you with it.

They have suggested, as usual, casual dress. It will not be a windshield tour. We will be going inside some of the facilities, so dress as comfortably as possible. They have suggested that no one wear anything polyester. They set off the geiger counters.

MR. PRESLEY: Radon.

MS. HOMER: That's exactly what she told me. You can take your phones with you in the van, but you will not be able to take them in the facilities, so any electronics you have -- it might not be a bad idea just to leave them at the hotel. And they suggested bringing an umbrella because it looks like rain, so -- any questions?

(No responses)

USE OF UNCERTAINTY IN DOSE RECONSTRUCTION

DR. ZIEMER: Okay. Thank you very much. Okay, let's move on to the next agenda item then, which is a presentation by Jim Neton on use of uncertainty in dose reconstruction.

(Pause)

DR. NETON: Well, good morning. Thank you, Dr. Ziemer. The title of this session is use of uncertainty in dose reconstruction. This is something that the Board had some interest in at the last meeting and so I put together a number of slides to talk about an overview of how we actually assign uncertainty for different applications in the dose reconstructions. In the time I have allotted here I can't go into an extreme amount of depth, but maybe if I whet your appetites for any additional descriptions or whatever, we can address that maybe in future sessions.

So just some rudimentaries of what the uncertainty is all about in the dose reconstruction process. As you know, the IREP model itself and the way Congress enacted the statute was that we use the IREP model, which is

a Monte Carlo sampling program that applies uncertainty to the distributions for the risk coefficients. And in fact, the front end input to that model is the dose reconstructions, which we also use uncertainty distributions in that calculation. So some of this is probably a review for folks, but I just wanted to set the groundwork.

The value for the central tendency of an uncertainty distribution will represent our best estimate. So you know, we do go to some lengths to try to figure out what really is our best estimate of the worker's exposure at the facility, at that job during that time period. But then we can take advantage of the probability distribution functions within IREP to assign some uncertainty about that distribution to encompass the fact that we don't know exactly what happened. I mean I don't think anybody in this audience could say you know anything with any certainty, and the goal here is to address that uncertainty as quantitatively as possible, and when an exact quantitation's not possible, to incorporate claimant-favorable assumptions. That's always our overrid-- our over-arching

factor here is if we don't know, science can't inform us, we'll include some favorable assumptions in the uncertainty distributions.

The distributions that we employ, and I'll get into this a little later, vary considerably depending upon the application, what we are doing with that dose reconstruction.

I think we've all talked about the efficiency process and how we will make some worst-case assumptions at the beginning of dose reconstructions to see if, even under those worst-case considerations, a claimant is non-compensable or likely to be non-compensable; then we'll terminate the dose reconstruction. That's all written in some detail in our regulation, 42 CFR part 82.

Under those conditions the distribution may be represented by a constant. I mean that is a distribution. The simplest distribution is a single value.

Conversely, if we don't have any information available for individual workers, as I discussed yesterday for -- when we use coworker data, we'll develop some model distribution based on the data available to us. If we have 5,000

samples, it may be that they best fit a lognormal distribution or normal or triangular or whatever.

One thing I do want to point out, though, the uncertainty in the organ dose is one of the many factors involved in the calculation of the excess risk -- excess relative risk. There are a huge number of variables in these calculations. And in fact, it's been our experience that for very uncertain cancer models where the models are not well known, the uncertainty in the dose distribution makes very little difference in the overall probability of causation. You can increase the uncertainty distribution by a factor of two or more, and as long as the central estimate stays the same, your probability of causation won't vary very much at all. That's because the over-arching contribution to the probability of causation, the uncertainty in that probability of causation, is the uncertain cancer model.

Early on we thought it would be best maybe to do a sensitivity analysis; to get our best bang for the buck, to go through and look at where we needed to focus on refining these uncertainty distributions where they made the

biggest difference. At the end of the day, though, there are so many factors involved that we could not predict with any certainty where -- you know, where we should focus our efforts.

These are just some of the factors I've outlined that are involved in the uncer-- other sources of uncertainty in probability of causation. Of course the cancer model itself, the risk model, is uncertain. It's based on a finite number of cancers, primarily -- as we know -- from the Hiroshima/Nagasaki atomic bomb survivors. There are not a lot of cancers in those cohorts, and also there are issues of adjusting those cancers to transfer to the U.S. population. Of course the dose rate -- dose and dose rate effectiveness factor has uncertainty about it, as do the radiation effectiveness factors.

In fact, I've gone through and looked at this and, for example, a lot of our exposures are due to alpha radiation. And as we discussed at previous meetings, the radiation effectiveness factor in our model varies, unlike the regulatory framework that's used in the workplace where, for instance, one would assign a radiation ef--

they'll -- it'll be called a quality factor or radiation weighting factor. Regulatory purposes assign a quality factor of 20, so all doses will be multiplied by 20.

In our scheme, the radiation effectiveness factor is allowed to vary somewhere between four and 100, with a best estimate around 18. That uncertainty in itself adds a huge amount of overall uncertainty to the model. And in fact -- I'll talk about this a little later -- for models like Bethlehem Steel, that is the largest single contributing factor to the overall uncertainty for some cancer estimates. It was over 58 percent of the uncertainty in the PC calculation was due to the radiation effectiveness factors in certain instances.

So it's a very complex issue. I guess I'm trying to lay the framework here that there's no simple -- simple discussion on this.

Okay. The uncertainty distribu-- there are a large number of uncertainty distributions available to statisticians and those who do model data. These are examples of the ones that we've used in dose reconstructions thus far. I've mentioned that constant. That falls out from the

-- you know, the worst-case assumptions that we use, we'll assign a constant and move forward. The log -- the normal distribution, which of course is a bell-shaped curve that we may all be familiar with that has a central tendency and be characterized by the average value and some estimate of standard deviation -- how tightly that data is grouped about this little bell-shaped curve.

And the lognormal, which is really sort of a special case of the normal. The data tend to be skewed towards the lower values, and then there'll be a few outlyers at the upper tails -- not a few, there will be outlyer -- I guess I shouldn't call them outlyers. There will be values at the upper tails. That typically is a distribution that's observed in many, many workplace environment exposure conditions, and in fact most environmental conditions where you'll have a lot of values that are grouped fairly close, but then you have some processes or parameters that are unknown that just add uncertainty and create these larger values.

The triangular distribution, which we've taken advantage of in some of the exposure models

-- and I'll talk about that later -- in my mind is really a sort of a claimant-favorable version of the lognormal in the sense that a lognormal distribution has a sort of a bell-shaped curve and then a log tail. With the triangular, you only know -- you only have to specify the minimum, the mode and the maximum value. So you have the smallest value, the most frequently-occurring value, and then the highest value, so you have sort of this triangle, and that triangle can be skewed one way or the other, depending on where you pick that middle value. That could be construed to look like a lognormal, except that you don't have the declining tail, so that you sort of extend the upper -- the distribution of the upper values is extended out further in -- in -- on the X axis. I've got a couple of pictures of this that will maybe help explain it a little better.

I just throw this up here because this is -- this is the efficiency process that's included in our implementation guide, and just to point out, you know, why -- how this would work for a constant. As we all know, with the efficiency process we pick the worst-case

assumption. For external, say we feel that's the most likely mode of exposure, you add up all the doses based on those worst-case assumptions. If it's a low probability, you do the same for internal, and if it's low, you're done. If by assigning a constant to all these values the person ends up at ten percent, there's no reason to move forward. That's a great idea, and one would argue why not just assign a constant to everybody. Well, the problem is, in some of these calculations a constant is used six or eight times. And as was learned early on in the EPA modeling, if you keep using a constant every step along the way, then you end up with some really improbable value at the end of the day. So that's when we would back off and then use the uncertainty propagation using Monte Carlo techniques.

This just sort of defines how we use the constant for a worst-case assumption. This is just a quotation out of the regulation. It essentially says the highest reasonably possible value based on reliable science, documented experience and relevant data. In essence, we're saying we wouldn't use some absurd value. We

wouldn't pick a million rem or something like that. We would evaluate the workplace environment and pick the highest value that would make sense, given that exposure scenario.

Okay. This gets into a little bit about the -- I'm glad it's early in the morning. I hope everybody's had a little coffee. These are -- the titles are hard to read, but the distributions I think are fairly visible. And I just wanted to point out some examples of some distributions. For example, this would be a normal distribution, a nice bell-shaped curve. This is an example of -- a fairly good example of a triangular distribution where you have a minimum value, the mode -- the most frequently-occurring probability value, then the highest value we could conceive of assigning. This is a nice example of a lognormal. You can see it looks sort of like a normal in this area, but the you have this tail out here where there are straggling values that add to the overall uncertainty, so you've got the three.

Now what I wanted to point out, too, I alluded to earlier is why not use a constant at every step along the way. You can do that. For

instance, this is -- this is right out of our implementation guide for external dosimetry. If one wants to do a fully-researched dose reconstruction, this is what we would do for an external dose. You would take the dosimeter reading, the value that's on the badge -- and that has some distribution about it; let's say that's plus or minus 20 percent. Now you take the work -- the conversion of the dose -- the measurement on the dosimeter to some value to the tissue -- to the -- the regulatory value, the rem, the radiation equivalent man value. That has an uncertainty distribution about it, and then you end up with the dosimeter dose. But then you have to propagate in -- let's say this person -- this was their actual readings on the dosimeter. Now you have readings that were recorded as zero. They were sensor(censored)* data. There's some missed dose that we have to add in. This in fact would be our estimate of the distribution of missed doses. The most frequently-occurring value here would be the limit of detection divided by two, and the 95th percentile tail out here would be the limit of detection times n, the number of dosimeters, so

we would generate this lognormal distribution. Then you have to convert the missed dose again to some value of badge reading to actual dose to the organ, come up with that dose. And then you've got the same situation with the environmental dose.

So my point here is you've got six different parameters that overall end up with a propagated uncertainty distribution. If we -- and we do this for certain cases. We can take -- on a worst-case assumption we will take the highest value of each of these distributions, run them through the probability of causation calculation, demonstrate that the person's PC is less than ten percent, 20 percent. We don't have to go through these iterations, which are very time-consuming. To do each of these runs a couple of thousand times, propagate this run through and then you end up with this distribution, which you have to characterize -- I would say that this pretty much looks like a lognormal distribution, which it probably is; we would analyze it, of course, with some formulas to determine that -- and then that would be the input term for this person's bone marrow dose.

So that's how uncertainty distribution is handled within the actual external dose calculation.

Now if you get to internal dose, that's a whole different world. I mean those of you who have done anything with internal dose recognize that coming up with an internal dose value has a lot more -- more assumptions involved in the calculation than in the external arena. So what we've done to simplify the calculation is that we've considered all internal doses to be lognormally distributed with a geometric standard deviation of three. I'll explain, in practical terms, what that means in the next slide. This gets us out of the arena of trying to account for the tens of different values that have uncertain distributions in an internal dose calculation. You have uncertainty in the metabolic models, you have uncertainty in the values that were measured, obtained -- you know, internal doses are, by nature, indirect measurements. You can't measure the internal dose to an organ with a probe. You have to take a urine sample or a fecal sample or something like that, so you have the uncertainty in that measurement. You have the uncertainty in once it gets in a lung, how

fast does it leave the lung. All these parameters have uncertainty.

We didn't pick this number out of a hat, though. I mean there are some scientific publications out there that do point to the fact that a geometric standard deviation of about three is pretty reasonable. In fact, it's probably a very fair, if not moderately claimant-favorable, assumption. Using this assumption results in a range of values spanning several orders of magnitude at the -- there's a piece missing here -- the 99 percent confidence interval.

This is what I mean by that. This is a lognormal distribution. This would be -- this is not IREP. This is a program called Crystal Ball, for those of you who may have Excel spreadsheets. It's a nice little add-on package that you can take and propagate uncertainty with any -- any distribution that you can -- that you'd want to use, using an Excel spreadsheet.

And so here's an example of -- let's say that we did an internal dose calculation for an organ and we thought that the best estimate, the geometric mean of that distribution was 1,000

millirem, and we're going to assign it in the IREP input file with a geometric standard deviation of three. In practical terms, what that means is we know this value within a range of times three/divided by three. So we know this value at one standard deviation, which is 65 percent of the values within a factor of three. So by definition, at three standard deviations, we know this within a factor of nine in either direction. So in practice, what this means is the 99th percentile upper tail would be sampled at 9,000 millirem and the lower tail would be 1,000 divided by nine. I haven't done the math, but it's somewhere above 100 millirem. So somewhere slightly above 100 millirem to 9,000 millirem is the range of doses that we would assign, given that our best estimate was 1,000 millirem.

That's a pretty wide range. I mean we're basically saying we don't know this value very well, which is the case for internal dosimetry. There are a lot of uncertainties about these calculations. Every single -- and Dick can correct me if I'm wrong on this. I think every single internal dose that we put in

has at least a GSD of three associated with it.

Now let me just turn to the uncertainty in exposure models. Remember I said the distribution used depends a lot on the application. What I pointed out to you was the uncertainty that we would use when we were doing a somewhat fully-researched dose reconstruction, something that we had external badge measurements, we had urine samples. In many cases for atomic weapons employers and others, we have no real monitoring data for the individuals. We have maybe a distribution of air samples. In that case we would develop an exposure model. That exposure model would be applied to the work force.

Now there are a lot of different flavors of exposure models one can develop. You can do, in the case of Blockson Chemical -- or Bethlehem Steel, an exposure model that covers all workers, because we do not know at Bethlehem Steel where the workers were in space and time in relation to their work environment. We don't necessarily know. That information was not collected with any certainty.

So in that case, we will develop a

distribution from the air samples that will cover the range of workers. And as I said, remember, the best estimate -- our best estimate is -- the best estimate for a triangular distribution would be the mode. And so in the case of Bethlehem Steel -- you can't see it very well on this slide, but in the case of Bethlehem Steel, we feel the best estimate for exposure was two times the maximum allowable air concentration at that facility. That was based on the air samples that we had available at the plant.

And we've gone over this in previous Board meetings. I'm just going to refresh your memory. We also believe that our best estimate for the maximum credible air concentration in that facility is 1,000. This 1,000 was not even taken at Bethlehem Steel. It was actually taken at Simonds Saw & Steel at one of the processes, but we felt that there was enough uncertainty in our knowledge of the Bethlehem Steel air sample distribution to incorporate this, just to make sure that we covered the bases, that we weren't biasing these results on the low side -- even though, given -- remember, our best estimate of a work exposure is two.

Some have led -- this has led some to the conclusion that if your best estimate is two -- this is the highest value on the curve -- then that's what's being used to do the calculation of probability of causation. That's what's used to calc-- that's not even close to the reality of the situation. It's a fairly complicated scenario, but the best I can present it is that what happens is in most cases what ends up being used is -- the mean value of this distribution, by the way, is 335 times the maximum allowable concentration. The median value is really what ends up being used, the value at which 50 percent are below and 50 percent are above. So if you have, for example, a cancer model that you're running the calculation, it's almost equivalent as if you put in 300 times the maximum allowable air concentration in the probability -- in the IREP calculation, is the way it's sampled.

That depends a lot, though, on the uncertainty of the cancer model. The more uncertain the cancer model, the more this 300 becomes the best estimate, because this uncertainty is dwarfed by the uncertainty in the cancer models and all the other coefficients.

Remember, I said that if your cancer model's very uncertain, your best estimate -- the middle value of the distribution ends up being the driving value in the uncertainty distribution.

It varies, though, if the cancer models are better known, then this starts to contribute. But nonetheless, somewhere in this range is what ends up being assigned to the workers.

We've developed several of these exposure models for Bethlehem -- for some of the AWEs, Bethlehem Steel and Huntington Pilot Plant I think is one of them, Blockson has one of these type exposure models. We believe we cover the range. Again, if the probability of causation is calculated to the 99th percentile, it's being driven by some fairly high values that we believe are claimant-favorable. And in fact these val-- this value is assigned to every single worker at the plant, regardless of whether -- of where they worked in the operation, if they were a rad worker or not, 'cause we don't know, so we would just assign that.

It's a fairly complicated issue, but I think I hit the highlights there.

Let me back up. I think I missed one

point I wanted to make on internal. No, I guess I didn't.

Okay, that's all I had prepared to talk about formally. I thought this might spur some conversation and discussion, so I'll stop there and answer any questions.

DR. ZIEMER: Thank you, Jim. Very stimulating presentation. Let's see what questions we have this morning. Any -- yes, Jim Melius.

DR. MELIUS: Yeah, this assumption of internal dosimetry, the lognormally geometric standard deviation of three, it would seem to me that that would depend on the type of internal dosimetry test. I mean I don't know much about -- I've -- there aren't -- their distributions, but it would seem to me that some are more accurate than others.

DR. NETON: Yes.

DR. MELIUS: You know, like the difference between a spot urine sample and a 24, some -- I mean I'm sure there are others -- other examples --

DR. NETON: Yeah.

DR. MELIUS: -- and so I guess my

question is -- is there really sort of a range of -- should this be adjusted for different types of tests or what's the...

DR. NETON: If we did adjust it, I'd say we'd adjust it downward, we'd tighten it. This would represent, in my mind, the upper range for some of the worst type of analyses, like plutonium -- the actinides, those -- so if we're talking about taking a urine sample where one millionth of the intake is being excreted in the urine at any given time, that kind of situation.

I will say I mis-spoke slightly, though, that the tritium model is much simpler, and we do apply or are in the process of applying a different uncertainty distribution for tritium because that distributes itself uniformly through the whole body. It mimics hydrogen or water by that point, and so the water distribution of the body in your excretion is known to a somewhat better degree than a GSD of three, and we've actually developed a Technical Information Bulletin to address that.

I think the answer to your original question is, I would say that there are better estimates for some of the nuclides -- like cesium

is easier to measure, those type nuclides. This GSD of three I think covers a myriad of possibilities and does address, I think, the worst case -- worst cases out there. In fact, the analysis -- one of the analyses that we're quoting was a GSD of three that was quoted based on -- was it the atomic veterans analysis that was done -- Health Physics published some articles about -- this has nothing to do with the DTRA program. This is a peer-reviewed analysis of how well you could reconstruct doses from the atomic veterans using things like lung counting and urine sampling, and that's where a value -- a GSD of three was provided.

DR. MELIUS: And how about -- that was -- I'm thinking of changes over time and techniques and...

DR. NETON: I think the overall uncertainty in the measurement -- as you get lower and lower and closer to background, of course, uncertainty goes up. And as you go back in time, the uncertainty goes up because the detection limits weren't as good, maybe. But really, those are small, compared to the differences in metabolic models, breathing rates

-- you know, all those other factors. That's why we're saying within a factor of ten, 20, 100, you know. You incorporate all those uncertainties in there and you end up with -- you know, I really believe that you had 1,000 millirem but I can't tell you if -- it's somewhere between 100 millirem and 9,000 millirem. We're pretty certain we've got that bracketed. And under the way the IREP program works, you punch that in there, it's sampling those high values a certain percentage of the time. And of course the ultimate decision is basically the 99th percentile. I can't say that that's going to drive the PC calculation home, because again, it may be -- even with that uncertainty, the over-arching uncertainty in the calculation is the risk model. These uncertain risk models -- I can't over-emphasize their contribution. We have had cases where the best estimate, the 50th percentile, is in the low percentages -- one, two, three percent; 99th percentile is over 50. And that's not because of the dose reconstruction. It's because the risk model, the uncertainty and all the other -- the transfer fac-- all that -- the radiation effectiveness

factors -- so in reality, this is one component of the risk. I don't say it's a small component, but it is in many cases. And where it is a major component, I think we've got it covered with these distributions.

DR. ZIEMER: Thank you. Mark.

MR. GRIFFON: Do -- yeah, I'd be interested in the references, too, at some point, for -- to support that GSD of three.

The other question I have was did -- I know at one point IMBA -- the authors of IMBA were going to construct some uncertainty analysis functions into IMBA so that you could propagate it. I'm not saying I disagree with the use of this, but did they -- was that ever achieved or have they --

DR. NETON: Well --

MR. GRIFFON: -- or does your current version of IMBA --

DR. NETON: The current version --

MR. GRIFFON: -- allow you to...

DR. NETON: -- of IMBA has a function that is a maximum likelihood estimator, but that really addresses only one component and that is the extrapolation of all the bioassay samples to

the intake. So if you have six bioassay samples that you've taken on a person, they fit some curve, and you're fitting these functions to it, it will propagate or estimate the uncertainty in that intake estimate. But that's -- again, that's just one factor of all of these myriad of factors that include metabolic models and all that kind of stuff. So reality is, we don't -- we don't use that function. We've been sticking with this.

We have looked at it. We've looked at all kinds of possibilities, and we believe to be the most straightforward is just to assign this distribution to the internal dose.

DR. ZIEMER: Larry.

MR. ELLIOTT: Jim, would you comment on the sensitivity analysis function of IREP and what that really points to when you run that?

DR. NETON: Oh, okay. Yeah. Owen Hoffman's sitting here. He's probably better qualified to speak on that than I am, but there is, under the advanced features of IREP, after you do an IREP run, you can click on this button and it will give you the relative contribution to the overall uncertainty for a number of factors.

One is the cancer model, the risk model, and then all those modifiers of the excess relative risk function are in there. It also has the contribution to the relati-- radiation effectiveness factor and the contribution to the radiation dose. So anyone can do this. YOU can do an IREP run for any case that's been -- been run, click on the advanced function -- advanced features function and look at where -- you know, what's driving the uncertainty in this calculation. And that's what I've done. We've done these sensitivity analyses and there's no clear pattern. That's the problem. Because there's so many -- the latency is built in there, age at exposure, the incidence adjustments, all those other factors.

I guess I'd like to ask Owen if he's got anything else to add about the sensitivi-- the advanced features. I mean did I portray that properly, Owen, or...

DR. ZIEMER: Grab a mike there, please, Owen.

DR. HOFFMAN: Actually it's a thrill for me to sit in the back of the audience and hear this presentation because it's been one of the --

my -- my areas of my career where I've been a strong advocate is explicit incorporation of uncertainty as probability distributions, including the uncertainty on the dose.

Yes, in IREP there is an advanced feature that does a sensitivity analysis. And what that does is it -- it apportions the uncertainties of the various components of IREP and the uncertainty on the dose input to see which contributes most to the overall spread of values. Now that's not the same as to say which one contributes most to the 99th percentile of PC. So if you're interested in what contributes most to the 99th percentile of PC, go back into the model and fix a value as a constant and see what difference it makes to the 99th percentile of PC. It's a little bit more complicated calculation.

I'd just like to mention, Jim, that in some of our analysis of internal dosimetry for some of the transuranics, you might get GSDs somewhat greater than three. But for things like iodine 131, strontium 90, cesium 137 and tritium, the GSDs will be much lower than that, when you're taking into account just the internal

dosimetric model. But that's exclusive of the uncertainty in the intake. So oftentimes the uncertainty in the intake will dominate over the uncertainty in the internal dosimetric model. But that won't necessarily be the case for things like plutonium.

DR. NETON: Right. There's -- unfortunately there's not a ton of literature out there on this. This is not an area that's been explored in a lot of detail, and I believe that we're somewhat blazing the trail here in this area. And as we learn, we're certainly going to modify.

DR. ZIEMER: Thank you, Owen, for that added comment.

Other questions?

(No responses)

DR. ZIEMER: There appear to be none. Thank you again, Jim. We appreciate that.

SCIENTIFIC RESEARCH ISSUES UPDATE

Next we're going to have an update on scientific research issues, and this'll be presented by Russ Henshaw.

MR. HENSHAW: Can you hear me? I don't know if this is up...

Well, good morning to the Board. I'm the epidemiologist with NIOSH Office of Compensation Analysis and Support. I've been more or less the one-man shop there for the three years of the program's existence. We are hiring another person, and I'll get into that a little later.

I wanted to give you a brief update on our research projects, where we are. I thought I'd start with the lung cancer model. As you know, we talked about that in prior meetings. And just to recap, there is another version of IREP known as NIH-IREP, which is maintained by the National Cancer Institute, NCI. As you know, late last year NCI revised their lung model according to a published analysis of the Japanese survivor data. It was a study published in Radiation Research in 2003. Based in part on that, but also on an additional specially-commissioned analysis, and also they based it on professional judgment by the scientists at NCI.

We have not followed suit on that. Instead we've chosen to let the dust settle and evaluate that model for possible application to our EEOICPA-covered work force.

The difference between the -- then -- the change made in late 2003 -- the difference in probability of causation between their version and our version of IREP was mainly a difference between smokers and non-smokers. In NIH-IREP the PC results are generally more claimant-friendly to male smokers and to females exposed at younger ages. NIOSH-IREP remains generally more claimant-friendly to male non-smokers and to females exposed at older ages.

Well, we learned, since the last Board meeting, that NCI has opted to make a further change to their lung model. Specifically, they decided to adjust for internal exposures -- that is chronic exposures to alpha radiation. The reported effect of that change is to smooth out the differences in probability of causation results at the 99th percentile credibility limit for smokers and non-smokers. In fact, my understanding is that the difference is practically negligible -- or at least minimal.

I do have an update. I just learned from talking with Owen at this meeting that that change went into effect last week -- the change in exposure to alpha radiation. So what we've

done when we learned about this, basically we put it on hold and decided to wait until they made their additional change, and then resume our evaluation -- which we are in the process of doing. We have a preliminary report from SENES exploring the differences in the two models and with certain recommendations, and that's in internal review right now within OCAS.

Secondly, you might recall we have a project going on re-evaluating DDREF, the dose and dose rate effectiveness factor. Just for those of you not familiar with that, I know the Board is familiar with it, but DDREF is in effect an adjustment factor that's built into IREP to account for the differences in exposures of the Japanese survivors compared to U.S. nuclear weapons workers. Specifically, the Japanese cohort was exposed primarily to acute doses of radiation at relatively high dose rate -- basically intermediate rate to high. Whereas the work force covered by our program -- exposed mostly to a chronic lower dose rate radiation. What DDREF adjustment does is basically account for the presumption that the risk per unit dose of radiation is less at low dose/low dose rate

than at acute high dose rate.

Now although the ICRP recommends a DDREF of two, what we opted for in creating NIOSH-IREP was to use a more claimant-friendly uncertainty distribution -- there's actually two uncertainty distributions in IREP. They apply to solid tumors only, not to the leukemias. And our distributions are weighted mostly between values of one and two.

At any rate, that was a controversial issue at the time the probability of causation rule was published and at the time of creation of NIOSH-IREP, as you all know.

I know this is of interest to the Board, but it's also of great interest to us. We thought it was time to take a fresh look at DDREF, re-evaluate our assumptions and, based on that re-evaluation, possibly propose an adjustment to the DDREF.

Where we are right now is that we received a preliminary report from SENES in May, just two and a half or three months ago -- a very complex and lengthy report, 88 pages long. It's still within an internal review in OCAS. We hope to complete our review and submit our comments to

SENES shortly -- hopefully, actually, within the next week or two. I've got this month on that slide. That may turn out to be true.

And ultimately we do intend to submit any findings or recommendations to outside experts, either via a panel or possibly commission subject matter experts to independently review our findings. We're not sure yet. It's going to depend more or less on the ultimate report after a back-and-forth between OCAS and SENES.

I talked at a previous meeting about our intention to upgrade NIOSH-IREP with the new version of Analytica. Analytica is the software package that functions as the computational engine behind IREP. At the time I prepared this slide, we had a projected implementation date of August 20th. I'm happy to report that we did go through with that on the 20th and transition went smoothly, no reported problems. And our own tests have shown that this new version actually processes cases at two or three times as fast as the old version. But more importantly, we can now process cases with 500-plus rows of exposure information. Previously that was very difficult

to do and took -- if it could be done at all, it frequently took 30 or more minutes. And in instances where we increased the simulation sample size to 10,000, a claim simply could not be processed at all. We reached a capacity limit and a time-out problem.

We've also -- in conjunction with that, we've changed the NIOSH-IREP version number to 5.3. The previous number was 5.2.1.

Also, as I mentioned in the e-mail to the Board, the IREP summary reports now include the Analytica version number printed on the top of each summary report. Just -- avoid confusion, there's -- there's an IREP version number and an Analytica version number. Again, NIOSH-IREP is at 5.3. Analytica is -- version number is 3.0.

We did begin interviewing for a research health scientist position. We began mid-August. Those interviews are actually still proceeding, but we should have -- should have the whole process wrapped up within a couple of weeks, I believe. And barring unforeseen circumstances, I would expect the new person to be on board prior to the next Board meeting, and I assume will probably be at the next Board meeting.

This person's primary duty will be applied research, as opposed to unending pure research. And I mention on the next slide, the first project will be to conduct a feasibility study of current occupational dose-response data.

Incorporation of occupational studies into our risk models has been a primary interest of the Board. It is of major interest to OCAS, as well. We will begin that project this year. I do want to just remind everyone, though, that the probability of causation rule went into effect just two years ago. At the time the rule was promulgated, the decision had been made by NIOSH that the current state of knowledge of U.S. occupational studies was insufficient to incorporate it into our risk models.

I might add also as recently as late last year when NCI is-- the NCI/CDC working group issued its report to revise the 1985 radioepi tables, they commented that at that time, less than a year ago, that estimates based on low dose studies are far too imprecise to be used in risk modeling. Well, that may be the case, but nonetheless, we do think it's time to take another look at it, and we'll begin with a

feasibility study. And if the -- that study indicates that there is a sufficient quality and quantity of dose-response data among occupational cohorts, we will launch into the next phase to -- which would be to incorporate that data as a supplement to our risk models wherever that may be possible.

Grouping of rare and miscellaneous cancers, that was another priority item that the Board identified. As you recall, the cancers were originally allocated to risk groups based on epidemiological data mostly, but also biological plausibility and uncertainties. And I do want to clarify, by the way, an issue that came up in the subcommittee meeting two days ago when Larry asked a question about the risk group for rare and miscellaneous cancers. There are two things going on here. There are 32 IREP risk models, but each of those models falls into one of three major risk groups. Or if it doesn't, into a separate -- a separate risk group. And I just want to summarize those risk groups now.

The three main ones we call -- group one is a group that includes breast cancer, digestive cancers, and it depends -- that risk model

depends on age at exposure and age at diagnosis.

The group two cancers depend on age at exposure and age at diagnosis, but also incorporates an age-independent excess relative risk per sievert, as multiplied by an age-dependent modifying factor. And that group includes cancers such as bladder, connective tissue, esophagus, eye, many other sites.

Group three cancers characteristic -- the major characteristic is that the excess relative risk per sievert is constant for all ages at exposure and attained age. There's no age dependency. And that group includes female genitalia, less ovary, and lung cancer.

There are nine additional risk models that we loosely call group four, but each has a unique -- a unique risk model.

I might add that I think this exploration of -- or re-evaluation of how these cancers are grouped I believe dovetails into the feasibility study of occupational cohorts. I don't see why we can't look at both of these issues, if not simultaneously, at least in conjunction with each other. And I think there's a good deal of interplay there that needs to be

studied. In fact, the more I think about this, I don't think we can really look at the two issues independently.

I have on the slide that that project is in the planning stage, but really it's really in the beginning stages. I expect a preliminary report from SENES very shortly.

Projects I did not mention on the slides -- three, to be specific. This is late-breaking news. We intend to conduct a review of the choice of organ sites for dose reconstruction. Again, this is not for IREP risk modeling, but the choice of the appropriate organ for conducting the dose reconstruction. There may be instances, for example, where the choice of organ for dose reconstruction possibly conflicts with the way the respective IREP cancer model is allocated to a risk group. There may be instances where one could choose between two or three organ sites for conducting dose reconstruction, and maybe it's a judgment call. We want to re-evaluate those situations and make sure that if we're using an organ that's perhaps less claimant-friendly than another that there's a sufficient scientific rationale for that. Or

if not, change it.

We also need to look at the -- our latency adjustment for bone cancer. That's a -- there's a current difference in the latency adjustments in NIOSH-IREP as opposed to NIH-IREP. NCI decided that the bone cancer model -- the latency adjustment for the bone cancer model more properly falls into a latency adjustment used for thyroid cancer. We have not made that change, but we need to evaluate that and make a decision.

And finally, as you all know, the Health Energy-related Research Branch in NIOSH received some funds to conduct studies of CLL. They had a public meeting last month. Three representatives from OCAS attended that meeting and I guess -- not much more we can say about that at this point except that presumably there'll be a report issued from that meeting and we will proceed from there.

That's really all I have at this time. I'd be happy to entertain any questions.

DR. ZIEMER: Russ, would you mind just repeating the variables on your second group?

MR. HENSHAW: Sure. I didn't name all of them. It's quite a bit, but --

DR. ZIEMER: The main ones that you had identified.

MR. HENSHAW: Bladder cancer --

DR. ZIEMER: No, not the organs, but the variables.

MR. HENSHAW: Oh, I'm sorry. The excess relative risk per sievert depends on age at exposure and age at diagnosis, but an age-independent excess relative risk per sievert is multiplied by an age-dependent modifying factor.

DR. ZIEMER: Thank you.

MR. HENSHAW: Group three is the only one of the three main groups with no --

DR. ZIEMER: Constant with age.

MR. HENSHAW: -- dependency on age.

DR. ZIEMER: Thank you. Other questions or comments? Yes, Jim.

DR. MELIUS: Just more of a comment. Would it be possible on the -- since we're -- I think we're meeting in Washington next time -- to get a presentation from NCI or whoever needs to be involved on the smoking adjustment lung cancer issue? I don't know if the timing's right in terms of your reports that you're receiving, but there might be an opportunity to have them come

and explain it.

DR. ZIEMER: Have they basically finished their work on that issue or --

MR. HENSHAW: My understanding is that final adjustment just went into effect last week. They call their report an interim report, pending release of BEIR VII and so forth, but -- yeah. The last I heard, by the way, is that BEIR VII is expected out late this year or early next year. Does anyone have an update on that?

UNIDENTIFIED: We've heard that before.

DR. MELIUS: As Cori says, check's in the mail.

MR. HENSHAW: I don't know. I mean I guess it's possible. I guess we certainly...

DR. ZIEMER: I can almost assure you BEIR VII will not be out this year.

MR. ELLIOTT: Yes, we'll -- we'll look at that and -- I think it depends -- it would be nice if we had something to present as a companion so that you can make the comparison and make a contrast and see the full gamut.

DR. MELIUS: Yeah, that's why I was asking were you going to be ready.

MR. ELLIOTT: Yeah, well --

DR. MELIUS: And same thing -- I mean at some point a briefing on the SENES work on (Inaudible) that would be good.

MR. ELLIOTT: Of course. All of this -- let me just speak to process. You know, we develop our work and we put it in front of subject matter experts for peer review and comment, as we've done with our probability of causation and the IREP development that we did when we were in rulemaking. You saw those subject matter expert comments. You had them available to you to weigh in your deliberations. That's the same process we would use for any substantive or substantial modification we would make to any risk model or any dose reconstruction methodology. We'd get subject matter expert and peer review comments for your benefit when we bring a proposal before you to evaluate.

DR. MELIUS: It's just that there -- no, I agree with the procedure. I just think -- may be a way of sort of briefing us as you go along so -- rather than all at once.

MR. ELLIOTT: Sure.

DR. MELIUS: For example, the DDREF, if -- if there's a certain finding or part of report

that's -- has some significant implications --

MR. ELLIOTT: I agree. As you can tell, we're putting more resources behind this. We're putting more momentum into these various research questions you have raised as primary questions for us. I think it's appropriate to keep a standing agenda item here on research issues and have Russ or his other colleagues come before you and present status now. Okay?

DR. ZIEMER: Okay. Any additional questions for Russ?

(No responses)

DR. ZIEMER: Apparently not. Thank you, Russ, appreciate the input.

The next item on the agenda is called subcommittee status, and -- a comfort break has been requested.

MR. PRESLEY: Good idea.

DR. ZIEMER: Okay, we'll take a comfort break.

(Whereupon, a recess was taken.)

SUBCOMMITTEE STATUS

DR. ZIEMER: Okay, let's reassemble. The next item on the agenda is called subcommittee status. What we'll do is simply

start with an update on the charter, and then move into the report of the subcommittee.

You should have received in your packet or -- I think in your packet, or as a handout, the final clean version of the subcommittee charter. The subcommittee charter was approved by this Board at the last meeting. You recall that it had to be submitted to the --

MR. ELLIOTT: Committee management.

DR. ZIEMER: -- committee management office -- I was trying to get the right name -- for their approval, and that now has been approved and the sub-- or the charter of the subcommittee is in effect. So it requires no action. I just wanted to make sure everybody has a copy of it, and then to remind you that under the -- well first, anyone need a copy of the subcommittee charter?

MR. ELLIOTT: It's under your -- it's under your tab which says roster, charter and subcommittee establishment. It should be there. You're going to first see the roster of the Board, then the charter of the Board and then the memo that establishes the subcommittee.

DR. ZIEMER: Memo dated June 21st.

Okay? Now notice that the membership of the subcommittee is identified as being the attachment, and the attachment is the Board. So all members of the Board are members of the subcommittee. So the way that this works is that for a particular meeting, we can select any subset of the Board to serve as the subcommittee for a particular meeting, but it will not be the whole Board at any given time. We still will have a number -- which is somewhere spelled out here -- the Chair plus three members and the Designated Federal Official. So there's four members of the Board at any given meeting, plus the Designated Federal Official.

Any questions on the charter itself?

(No responses)

DR. ZIEMER: Okay, so the charter is in effect. The subcommittee did meet on Monday of this week. The individuals who met for the first time as the subcommittee had also comprised a working group that met a month ago in Cincinnati to develop some materials for the subcommittee to review and develop further, and then ultimately for that -- for a recommendation to come to the Board on procedures for selection of cases to be

reviewed as part of our audit process.

So what this Board needs to do now is to receive from the subcommittee its recommendation on how to select the cases and a process for reviewing those cases. In that connection, there is a handout which consists of two pages, and the handout doesn't really have a title on it -- well, it says procedures for selecting and tracking dose reconstruction pages -- or cases, I guess that's the title -- dated 8/24 and it has as a second page a kind of flow chart. And actually the flow chart is the main thing that we'll be focusing on and the -- what looks like the first page is really an explanation of how the flow chart works. Now --

DR. MELIUS: Excuse me, I'm missing that.

DR. ZIEMER: You're missing that. Okay, let's make sure we got a copy for Dr. Melius.

DR. MELIUS: No, never mind. Wanda helped me. I put it in the discard pile.

DR. ZIEMER: Well, we weren't sure it was a very attractive-looking document, but that confirms -- we've got to dress these up in the future.

Now if you'll keep that document at hand, what we want to do is walk through that, show you what the thinking of the subcommittee is, and this will become a recommendation and basically a motion from the subcommittee for the Board to adopt this as a procedure.

Now the person who really helped us sort of get this in usable shape was Mark, and Mark, if I can call on you to walk us through the document and explain the concept here. And as Mark does this, I think it would be helpful if the Board would recall that we talked about a matrix of kinds of dose reconstructions, the matrix being an array that represents various facilities, various kinds of cancers, various types of workers, various levels of probability of causation, all of the parameters of interest. And the thinking being that we would like to have a sampling from all of this -- different parts of this array in various amounts, depending on weighting.

For example, a facility that has a lots of claims might therefore have more samples tested or reviewed than a facility with very few claims. But in any event, have the matrix in

your mind as Mark walks us through the process. Mark.

MR. GRIFFON: My third attempt at this. We did this on the subcommittee level, too.

Yeah, I guess the -- that is important to keep in mind is that I think, you know, at the end of the day -- in this flow sheet there's some parameters of interest defined here, and what I -- what I envision happening is at the end of the day we want to make sure we can fill this matrix with a sampling of -- you know, with cases in those relative amounts by the time we're finished sampling the whole set of available claims, of available cases.

So having said that, we thought we needed -- this is sort of to establish a procedure of how we're going to first select cases, and then sort of drop them in that matrix and fill our matrix up. So the first step at the top of that flow sheet -- it's easiest to follow this flow sheet, I think -- is to select the cases, really just using a simple random number-generator type selection process, and these will be of the available completed cases, finalized cases. Am I using the right terminology, Larry?

The --

MR. ELLIOTT: I think they -- to be correct, it's the cases that have been adjudicated to the point where there's a final decision proffered.

MR. GRIFFON: Right, which I think currently is somewhere around --

MR. ELLIOTT: Fourteen hundred, I believe, that have achieved that state at DOL.

MR. GRIFFON: So you know, we're thinking -- and actually we did a few trials of this -- just have a random sampling of those, no criteria, no stratification at all. And then take those random samples and run them through our parameters here and fill our matrix and -- and this is where we build in the flexibility so it's not a strictly statistical sampling method, but we as the Board or if we decide to delegate this to a subcommittee, but right now I think we as the Board would then look at these cases and have the information on these listed parameters below, and go down the list in order that they came up in a random selection process and decide -- you know, we'll take the cases and fill our matrix, but then if we get to a point where we've

got too many, in our view, of one certain type, then we can go to the next case. You know, we can exclude that, put that back in the pool, so to speak. Okay? So that's generally how it's working.

We looked at these parameters, as you go down this flow sheet -- these are the primary parameters where we're interested in looking at in sort -- sort of a -- I look at them as descriptive statistics of the cases. And the reason these -- one, two, three, four -- the reason these five are highlighted is because these were criteria that we were interested in that were also searchable on the NOCTS system on NIOSH's database.

POC categ-- and then we had some deliberations in our subcommittee about the appropriate ranges and the percentages of samples, and you can see to the right of each box on this flow sheet there's a description where we sort of came down and this -- this, we should say, is preliminary and we may want to adjust this in a later date, or even today if you don't agree with it. But this is where we came down on sort of the appropriate number of samples by

grouping. So for POC, zero to 44.9 percent, we went -- at the end of the day, when we fill our matrix, we want 40 percent of all of our cases to be within that group. From 45 to 49.9, we see that as a very sensitive, important area. We want a sampling of 40 percent, at the end of the day, to be out of that group. And the rationale there is -- you know, a couple of things. I think there -- there's some assumptions when a POC gets over 45 percent, the efficiency rules are, I believe, turned off with NIOSH and they go back and do a more refined dose reconstruction, so there's some different things that come into play. Also they're closer to the 50 percent award area, so that's why we weighted that a little higher. And then greater than 50 percent, we certainly want to sample some of those cases, as well, but we weighted it a little lower, 20 percent.

And then the next major criteria, facility, and the note says sample based proportionately on the total number of claims from all DOE facilities. And we've got this listing, and I've -- on an Excel spreadsheet I sort of went through this and they way I've --

the way I've looked at it now, I tried to modify it slightly last night to be consistent with Jim Neton's presentation where he -- he's saying roughly -- when they have more than 40 cases for a site, around that area, that's when they're tending to do a full site profile, and -- and it made sense to me to -- we needed a cutoff. Obviously you can't sample 2.45 percent for a site that only has, you know, one or two claims, so we needed some cutoff. At 40, you're looking at one case. So you know, the way I laid it out right now, I lined -- did a list of all of our facilities which -- where currently they have more than 40 claims. And now that's going to change, obviously, but just -- just for a cutoff at this point, I chose that, and we'd sample --

DR. ZIEMER: And just for clarity, for example then, if -- if Idaho had ten percent of the total claims in the system, then we would expect in our matrix to -- out of our total sample, ten percent of that to be Idaho.

MR. GRIFFON: Right, right. And that's the propor-- yeah, the proportional sampling there is that it's proportional to the number of claims for those -- for the sites, so the sites

with higher numbers of claims, we'd sample in accordance with the claim percentage of the total claims in the system.

And then at the -- the last grouping there is -- is a group of all the sites with less -- you know, less than a certain point, maybe less than 40 overall claims in the system. And we grouped them all together and from that pool we'd do a 2.5 percent sample, which is where we wanted to end up, if you remember, in our overall sampling is 2.5 percent. But the other ones, the -- the larger sites, we'd -- we'd sample proportionately, you're right, Paul. Thanks.

The next criteria, decade first employed -- again, these -- we weighted by decade and, you know, this was -- you know, based -- I guess we had discussions in the subcommittee, you know, based on our experience at the sites. And where we thought that there'd be more complex, more difficult cases, but -- and also more, you know, likely higher exposures, we tended to weight those decades a little higher. But we didn't want to exclude -- you know, we certainly don't want to exclude the 1980's, or even the nineties -- nineties and beyond, I guess that would be,

so...

And duration of employment the same way, you can see the breakout there. We -- we weighted zero to one year fairly heavily because of the concern of some workers that may -- you know, may have a short term at some sites, but they may have -- they may fall into that category of the unmonitored question, so there may be some unique circumstances that we want to look at. That's why -- that was our sort of rationale for that.

And the final is the risk model, which is basically the IREP risk model, the type of cancer. And -- and here we left this pretty open. The reason we didn't want to necessarily say a proportional sampling is because I think if we look at the current statistics -- I'm not sure if I have the latest ones, but there are some fairly common cancers -- skin cancer, prostate cancer -- that we may not want to do a proportional sampling of those types of cases because they're -- at least for prostate it's a very -- fairly non-radiosensitive, too, so how much do we want to look at -- you know, we may not want to do a proportional sampling -- we do

say in here, though, that our intent is to examine cases representing each type of model, at least some cases exam-- you know, related to each type of model. So that's kind of still open.

DR. ZIEMER: And I might insert here, and I think this Board could at some point decide on what that distribution should be. Our thought was at the front end, with say 20 or so sample cases, we may not try to -- we're not going to fill all these boxes anyway. But the other thing is, we -- it occurs to me that the three overall categories that Russ described to us earlier may be a starting point to subdivide these because they look at the variables in different ways and we may want to look at that and break those three categories into some distribution. But we can --

MR. GRIFFON: Uh-huh, there may be other ways to -- yeah. And finally, and not to be overlooked -- it probably shouldn't be in a little box in the lower right-hand corner, but I apologize on the format -- there's other criteria that we certainly have discussed on this Board and in our subcommittee that we think are pretty important parameters in, you know, looking at those cases where coworker data was used. The

thing about these criteria listed in the corner is that they're -- currently none of these are searchable criteria on the NIOSH database, so we can't -- total ca-- you know, we can't get the descriptive statistic when -- when we get a printout of random cases, the descriptors -- we'll get POC, we'll get facility, decade, duration and risk model, but we can't get these other parameters, so we'd have to open the case. So what we -- we feel that we want to -- at the outset we want to track this information, or have our -- our subcontractor track this information so that we get a sense of where -- and the other -- obviously the other parameters, just to look down them, monitored versus unmonitored is a important one. Job category is certainly something that we --

DR. ZIEMER: And once we start tracking it, we can assure ourselves that we are sampling across these parameters, as well.

MR. GRIFFON: Right.

DR. ZIEMER: A priori we can't get at the data.

MR. GRIFFON: Right. And I guess that -- that's -- I think that's it. That's --

describes what we thought of as the process, Paul, unless you --

DR. ZIEMER: Right, and if you --

MR. GRIFFON: -- have further explanation.

DR. ZIEMER: -- look at the first page now in terms of how it's done, we actually would ask NIOSH to simply use the random number generator to generate a group of cases. This Board or the subcommittee would then look at that list of cases and -- and see how they fit into the matrix, and then we could either accept or reject a case. But we would have a list of cases and you would just move on down through the list.

The other thing is that once the cases are selected -- and I'm not sure that -- says so here, but what the subcommittee talked about was having -- for each case having two members of this Board being primarily responsible for that case, coupled with a contractor person who would work up the case, because we're not all dosimetry experts. We talked about that --

MR. GRIFFON: Yeah, that -- I didn't put some of that -- I know we had discussions about the panels and the interface with the

subcontractor. That -- I think -- if we want to modify that, it should be in our other procedure, which I don't even remember the name of it, but we had a case processing procedure, I believe, and this -- I just looked at --

DR. ZIEMER: This is the tracking --

MR. GRIFFON: -- (Inaudible) I didn't want to overlap it with the other one, yeah, so...

DR. ZIEMER: Okay.

MR. ELLIOTT: I don't think that it's any different than what you've proposed in your process procedure, other than what we've agreed to -- and certainly the Board has to weigh in on this -- was to -- once you select the case, we would create a compact disk that had your set of cases for you, as a member, to look at with all information in it. It's not redacted, so it'll be a Privacy Act-controlled disk, if you will, that would be delivered to you and the contractor. I think that's the only difference --

MR. GRIFFON: Yeah, I think we -- we clarif-- I mean I think some of the discussion we had in the subcommittee was sort of -- now that

we -- 'cause we -- SCA was represented in the audience and we had a little further discussion of almost logistics, how's this going to work, you know, so we envisioned sort of a -- you know, and we still might want to --

DR. ZIEMER: But we --

MR. GRIFFON: -- write this down within our procedure, but the panel members could al-- you know, conference call in with SCA during the development. And then at some point when the cases are brought back to the Board, we talked about having a first day closed session where specific cases could be discussed and ca-- you know, case reports, but also where aggregate data -- an aggregate data report might be brought by SCA to that meeting, and then, you know, in closed session we could discuss the individual cases and the aggregate report, and then in open session present the aggregate findings where we don't -- where we can't -- can't discuss privacy information. So that's sort of -- we talked about that kind of process stuff.

DR. ZIEMER: Well, let's focus on the selection procedure then. So this recommendation comes as a -- or this comes as a recommendation

from the subcommittee and therefore is considered a motion before the Board to accept or to modify. So this now is open for discussion. Jim Melius --

DR. MELIUS: Okay --

DR. ZIEMER: -- then Wanda, then Rich.

DR. MELIUS: I would have -- I like the proposal. I -- the only one I would question is the over-weighting on the duration of employment towards few years. You have 40 percent of the cases would have less than five years of work at a facility, and that seems to me to be high. And I agree that we want to pick up some people with short dura-- short duration, but seems to me we would learn more -- there'd be more work involved I guess, but we would learn more from looking at people with longer duration of exposure.

DR. ZIEMER: And this is a good point, and one -- one thing that we should be cognizant of is that, to some extent, these are gut feeling, arbitrary numbers. And also we don't at this point know how this distribution compares with the claim distribution on longevity of the job and so on, whether -- whether we are really greatly over-sampling, even beyond what it looks

like here, compared to the number of claims. So it's a point well taken and if someone wishes to revise the numbers, it's quite appropriate.

DR. MELIUS: Yeah, and I mean I was just trying to look at -- as I looked at this, think through -- well, where are people going to fit, and it dep-- somewhat depends on sort of the -- you know, the order -- I mean that these are going to interact and not going to be -- same, so will people with short duration of work more likely be people who have a lower probability of causation, 'cause they'd have lower exposures, so -- yeah, but I'm afraid if we try to overfill on that particular thing, I think we're going to end up with a -- I'm not sure a very representative population, nor do I think we get a good look at what the dose reconstructors do.

MR. ELLIOTT: Certainly with AWEs you have a contained employment period that is -- that is reconstructed against. And it's not -- those are not, you know, decades. Those are usually in short number of years, so --

DR. MELIUS: Yeah, that was what I was going to mention is that another issue is going to be for different facilities, and somewhat

depends on sort of the order you go through in terms of selection as we fill this in. But maybe that's something we can adjust later on, but I just -- it's the one I thought -- I was a little concerned about.

DR. ZIEMER: You're not proposing a change at the moment, or are you proposing a change?

DR. MELIUS: Well, I'd like to get some more discussion.

DR. ZIEMER: Let's see, I guess Wanda next.

MS. MUNN: I'm glad to have heard the explanation because I was -- I was concerned over whether the random number generator was going to be used for specific sites when we first started out, or later on whether we were going to do one -- the sites, as for example, site profiles were complete. And so I'm -- I think -- my question is probably answered -- the first question was answered by relating table one more directly to the first statement in the procedure that was given.

But I do have a little concern with the note down at the bottom. It was my understanding

from all the information that we've heard here that job category is something that's almost impossible to tie down for most of the claimants.

DR. ZIEMER: The issue has to do with what words are used to describe the job.

MS. MUNN: What types --

DR. ZIEMER: However, once you get a case and open it, you can figure out, for example, whether it's a welder or a lab technician or whatever it may be. But a given kind of job sometimes has multiple names and maybe different names at different sites. But I think our thinking was that we could at least separate out kinds of workers, like engineers or construction workers or maybe some broad categories, even though -- we can't certainly sort against them. Once we have a case open, you can figure out what the person did.

MS. MUNN: Yeah, and my -- my point is, if we're going to do that, probably we should establish as a goal -- one of the things that the committee is going to have to do is to make some judgment with respect to the broad job category.

MR. GRIFFON: Yeah, and how to decide -- I guess how to decide primary job or something

like that, I mean --

MS. MUNN: Yeah.

MR. GRIFFON: Yeah, 'cause that could become an issue. I mean there's different approaches to that.

MS. MUNN: I think we probably need to make it clear in our procedure that that will have to be a judgment made by -- by the committee 'cause I don't see any other way you're going to get that done.

MR. GRIFFON: Right.

MS. MUNN: My only concern then left with the procedure itself is in the very last item in item six when you say this information will include only the statistics of the case reviewed. Only the statistics probably mean different things to different people, and for some, that would include the facility, that would include diagnoses, that would include month of employment, all of which are a part of the flow chart over here, but is that indeed -- are the items listed on the flow chart indeed the items that we want to present in our case presentation, or --

DR. ZIEMER: Let me try to answer that

in part. The idea was that once the individual cases are reviewed and the whole thing is rolled up, what would come to the full Board in open meeting would be a report that might take the form of -- that 25 cases have been reviewed and in 20 of these cases there were no issues, in three cases there was questions raised about something -- no cases would be specifically identified in open session, simply a kind of a statistical rollup of the overall picture.

MR. GRIFFON: I think may--

DR. ZIEMER: In several cases this issue arose.

MR. GRIFFON: I think maybe a better way to phrase it is like summary findings or something like that --

MS. MUNN: Summary findings.

MR. GRIFFON: -- instead of statistics of cases.

MS. MUNN: Yeah.

MR. GRIFFON: If I can propose to include -- instead of --

DR. ZIEMER: Yeah, summary findings --

MR. GRIFFON: -- those statistics, yeah.

DR. ZIEMER: -- would that be more

acceptable?

MS. MUNN: It would be to me.

DR. ZIEMER: I take it by consent that the words "summary findings" would be substituted here for "statistics". Thank you.

MS. MUNN: And now being a -- being a detail junkie, I guess, I have a tendency to think in process, so it concerns me a little bit on how our random number generator is going to work from NIOSH's point of view. That is to say is there going to be a possibility that the same case may be reviewed more than once --

DR. ZIEMER: No.

MS. MUNN: -- or is that number -- is NIOSH going to have to drop that number out of their generator once it's been chosen?

DR. ZIEMER: Once that case is out, it's our understanding that the -- I mean if it -- if it showed up again, it would simply be omitted -- or deleted.

MS. MUNN: Because our procedure doesn't say so.

DR. ZIEMER: Okay. Okay, we can certainly add that. The intent is that the cases that have been reviewed are out of the pool.

MS. MUNN: Once done, it's done. Yeah.

DR. ZIEMER: So we can add a phrase to include that, yes. Thank you.

Rich, you were next?

MR. ESPINOSA: Yeah, mine was a -- kind of on the same lines as Wanda for job categories. I was just kind of wondering how defined it was going to get, and so...

DR. ZIEMER: Yeah. I think the answer is we don't know. We will have to get some cases and start to see what -- what those look like and try to sort them. In other words, we're saying the intent is to sort or to track, but it's not a -- it currently is -- the -- searchable variable at the moment, yeah. I guess Jim was next, and then Roy.

DR. MELIUS: Back to my issue on duration of employment, I'm assuming -- you didn't have any really data to base this on --

DR. ZIEMER: No.

DR. MELIUS: -- in terms of that?

DR. ZIEMER: No.

DR. MELIUS: So rather than trying to propose that -- to make some changes in particular things now, I think -- you know, we're

number in selecting out of that? We assign a number to all 1,400 and then how do we generate what's coming out -- of cases that we're going to see?

DR. ZIEMER: This proposal would use a random number and select from those.

DR. DEHART: Okay. Based on the number only, just as the random number is generated initially.

DR. ZIEMER: Right.

MR. GRIFFON: That's it, yeah.

DR. DEHART: And that's going to have a bias because the 1,400 cases are biased in where they're coming from. We all know that.

DR. ZIEMER: That's understood, and that sample base will change as time goes on.

DR. DEHART: I understand.

DR. ZIEMER: But the point is, though, if we sample from that, it's still -- we're still looking at a small total of what the eventual matrix would be. And the idea here is we can still fit these into our matrix.

And let me tell you that if the Board approves this procedure today, we are prepared to give you the list. I've not seen the list. It's

hidden in a mayonnaise jar, buried -- no.

UNIDENTIFIED: It's in the olive jar.

DR. ZIEMER: We asked Todd, who's the -- what's Todd's title? He's the information management guy from NIOSH -- to generate the random list for us in case the Board approved this. We are prepared to give you a list of I think 25, and we can look at that and say let's take the first 20, and we're prepared to then generate the disks and assign the Board members and give that list to the --

MR. GRIFFON: (Inaudible)

DR. ZIEMER: -- to the contractor.

MR. GRIFFON: And just -- just --

DR. ZIEMER: Don't -- don't distribute any copies, and -- no one has seen this list except Todd.

MR. GRIFFON: Just so everyone understands -- I mean that's the -- I mean we just -- we ended up with a purely random up front, generated a list with those descriptive statistics, and then the --

DR. ZIEMER: The list will --

MR. GRIFFON: Our challenge will be to --

DR. ZIEMER: The list will tell you the POC category, the facility --

MR. GRIFFON: Yeah.

DR. ZIEMER: It'll tell you all of these.

MR. GRIFFON: And our challenge then is to go down one by one through those 25 as a group and just say in or out, and that's the hand selection part of it. I think we -- we just felt it -- especially at this first stage, we were uncomfortable in -- you know, I think we're more likely -- I was -- at least in the subcommittee level, I was focused on let's -- let's fill the matri-- let's worry about filling the matrix more than having a purely random, stratified sampling approach. We -- we can randomly select it initially, but then we can hand-select them, we -- they're not identified cases so there's not -- we just have some descriptive statistics to help us pick. And if -- you know, we know that Bethlehem Steel, Savannah River, Hanford -- there's quite a few cases up front of those -- those three sites. If we end up with 20 Bethlehem Steels, we may say well, we don't want to do 20 Bethlehem Steel lung cancers, you know.

So we can just X down some of those as we get them, put them back in the pool, so to speak.

DR. DEHART: My question was one of procedure, and I think I now understand what is intended. I do have one other question and that is the selection of the ten percent for the forties employee group. It would seem to me that you would want to be higher, because the assumption on dose is going to be much higher in that -- in that particular group. And I would feel that there's perhaps a greater chance of error and perhaps we'd want to see more of those cases up front.

DR. ZIEMER: One of the things, though, we're not sure of -- and we may have to get the statistic -- is how many actual cases come out of -- that still may be a smaller group 'cause that's in the very early stages of things where the system was building up in terms of numbers of workers. I think our intuitive feeling was that there were many more workers in the fifties.

DR. DEHART: (Off microphone) Oh, yes, I would agree.

DR. ZIEMER: So that this kind of reflects that, as well. But all of these can be

adjusted.

MR. ELLIOTT: Wanda.

DR. ZIEMER: Yes, Wanda.

MS. MUNN: Just a comment. To go back to the potential of doing a purely informational run just to see what's there right now, I guess I would caution that the information that we've had earlier today, and actually information that we had comments in our minutes from last time, point out that a very large percentage -- as a matter of fact, what we have in the minutes is 49 percent of the claims that had been submitted were non-covered claims. So if we were going to do the kind of general information run that we were talking about with respect to existing claims...

MR. ELLIOTT: I think you're referring to the Department of Labor's statistics --

MS. MUNN: Yes, I am.

MR. ELLIOTT: That's not in this dataset.

MS. MUNN: Yes, I am.

MR. ELLIOTT: That's not in this dataset.

MS. MUNN: Okay.

MR. ELLIOTT: The dataset --

DR. ZIEMER: These are only the NIOSH --

MR. ELLIOTT: The dataset that -- that you would be talking about selecting from would be the 15,000 -- or the 17,500 claims we have right now that have not been -- that weren't pulled back by DOL because they weren't a covered cancer --

MS. MUNN: Yeah, okay.

MR. ELLIOTT: -- i.e., like lymphocytic leukemia. So -- and of that, there's a subset that we have sampled the 25 from, the list that Dr. Ziemer's talking about that we have prepared for you upon your -- the subcommittee's request, that 25 sample was -- was randomly selected from the 1,450-some, I don't know the exact number, but...

MS. MUNN: No, I don't have any problem with -- with the process that's going on for what I consider this pilot run now.

DR. ZIEMER: Other questions? Yes, Henry.

DR. ANDERSON: Yeah, I just wanted to say what we -- when we talked about the statistics, what we really meant is univariant

statistics, so that when we get through the 20 and we would come back to the Board, we'd tell the public we reviewed four cases from Hanford, but it would not be four cases from the 1940's, from the what -- you know, that -- which would get toward it, but we would say there were five from the 1940's in the mix, there were three lung cancers, two whatevers, but it wouldn't be lung cancers from a site, so it would -- it's all univariant so people will understand. One will get a sense of what we're looking at from our matrix, but it would not allow identifiers.

MS. MUNN: So summary findings is a better --

DR. ANDERSON: Yeah.

MS. MUNN: -- appellation.

DR. ZIEMER: Let me make sure that we have recorded the slight modifications. One is to use the words "summary findings" rather than "statistics" in item six. Another was to add -- and I didn't jot it down --

MR. GRIFFON: Yeah, I think you --

DR. ZIEMER: -- Wanda's -- what was it --

MR. GRIFFON: I think you could put it

at the end of paragraph three, something to the effect of the following sentence: Once a case is reviewed, it will no longer be available for future sampling. Some -- something like that.

DR. ZIEMER: Yeah, that's --

MR. GRIFFON: Yeah.

DR. ZIEMER: Once a case is reviewed -- let's say it is removed from the sampling pool.

MR. GRIFFON: That's fine. That's better.

DR. ZIEMER: Are those the only changes in -- we've -- we'll take it by unanimous consent that those are okay. Any other changes on any parameters at the moment?

(No responses)

DR. ZIEMER: If not, I'm going to ask for a vote on accepting these procedures. And the understanding is in a sense these are provisional, 'cause we're probably going to end up modifying them as we gain experience.

Okay, all in favor, aye.

(Affirmative responses)

DR. ZIEMER: Any opposed?

(No responses)

DR. ZIEMER: Any abstentions?

(No responses)

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

This is a motion -- because it comes from the subcommittee, requires no second. Under Robert's Rules, the report from the subcommittee constitutes a motion but requires no second.

Now procedurally, what the subcommittee is recommending is that if we select -- we're recommending 20 cases for today. Because the contractor's prepared to assign 20 cases at a time, that will give them some experience.

MR. GRIFFON: I think that was our goal, anyway. We were --

DR. ZIEMER: That was our goal.

MR. GRIFFON: -- depending on the sampling.

DR. ZIEMER: We've asked the -- asked Todd to give us a list of 25, so that if there's -- if we see that there's, you know, a lot of cases from some site that we think is over-represented, we'd just bypass that and go on. Hopefully we can select 20 cases.

And then what we're going to want to do is -- the contractor will assign each case to one

of several persons on their team. We would like to have two Board members on each case. And obviously the conflict of interest thing comes into play here, so if you've -- are working on a site or have, then you can eliminate yourself from being a reviewer. There would be a timetable, and we're actually thinking about our next meeting as a time when we could roll out the first review of these cases, that the -- we would rely on the contractor to look at these in depth from a dosimetry point of view, but each of us may have a perspective. And you will have the full record. Every -- each Board member would have a full record of their cases on disk, as will the contractor. You'll have the opportunity to interact with the contractor's team person. And then prior to our meeting, we would have working groups. A working group would be two Board members and a contractor person that would get together, come to a final agreement on a recommendation to the Board for that particular case.

Now the nature of the report is -- is still not well-defined, other than it's -- we know that it needs to be a general rollup, and

we're kind of learning it as we go here.

Okay, the list now is being distributed. I do have a concern here that -- this list has no identifiers on it in terms of code numbers of case numbers. It does have decade, working years and IREP model, which I suppose might in some cases be -- someone might be able to use this to identify an individual. Is that possible? But at this point, whatever -- whatever comes out of the review, it's not going to be linked to specific cases, so here's the first 25. And these were drawn at random. I'm just looking down through this and I see -- one, two, three --

DR. ANDERSON: They're summarized.

DR. ZIEMER: Oh, all right. Okay. So here's the frequency -- 32 percent of these cases are Bethlehem Steel, 24 percent Savannah River, 12 percent Rocky Flats, and on down the line. They've simply analyzed this for us. You see the analysis by probability of causation. Interestingly enough, none of them have fallen between the 45 and 50, the area of great interest to this group.

DR. ROESSLER: (Off microphone) Are those mistakes, the 1930's?

MR. ELLIOTT: Can I make a --

DR. ROESSLER: (Off microphone) Are those -- are those actual beginning dates?

MR. GRIFFON: (Off microphone) Decade first worked --

DR. MELIUS: (Off microphone) (Inaudible) worked at Bethlehem.

DR. ROESSLER: (Off microphone) There are two of them from --

MR. PRESLEY: (Off microphone) (Inaudible) see there may have been a --

DR. ZIEMER: Somebody may have started working there before the actual -- that's their date when they started working there, I think -- yeah. And then you see the various -- fair distribution of kinds of cancers, and as you might expect, the second category's probably prostate.

MR. ELLIOTT: Let me make a comment on the POC categorization here where there were -- none of the 25 showed up in that middle range of 44 or -- 45 to 49. There are only 20 cases in that particular category anyway, so in this random sampling, we didn't hit any one of those 20.

DR. ZIEMER: Now here's -- here's what the Board can do. For example, if you said we want at least one of those kind of cases in this first run, then we can instruct Todd to go back and select by POC and randomly select one of those 20 cases. That's the kind of thing you can do if you want to adjust the list and still keep the randomness into it.

MR. ESPINOSA: (Off microphone) I'd say we send Todd back.

DR. ZIEMER: But also keep in mind that this is only 20 cases out of -- eventually we're going to have hundreds of cases that we sample, so this -- this is -- this is a kind of a first run-through for us and for the contractor. This is part of our learning experience on the process.

MR. ELLIOTT: Let me restate -- I mis-spoke. I stand corrected. Dr. Neton corrected me. We have only eight cases that would be in that category, between 45 and 49.9 percent. We have 20 cases out of the first 4,000 that we have turned over to DOL, so out of 1,450-some that have reached the final decision stage, we have only eight. So that's why --

MR. GRIFFON: That's a very small number.

MR. ELLIOTT: We've got -- smaller than 20, even.

DR. ANDERSON: (Inaudible)

DR. ZIEMER: Well, and --

MR. ELLIOTT: My apologies.

DR. ZIEMER: -- for the initial run, this may be fine because we're really learning how to do the job.

DR. ANDERSON: We've got a lot of low POCs.

MS. MUNN: We're all on the same learning curve.

DR. ZIEMER: Which is fine.

MS. MUNN: That's fine. We have a few high ones, too.

DR. ZIEMER: Now the -- what -- what I'm going to ask for is -- to start us off, I'm going to ask for a motion to accept the first 20 on the list as the 20 that we will test --

MR. ESPINOSA: So moved.

DR. ZIEMER: -- and it's been moved and --

DR. ANDERSON: Seconded.

DR. ZIEMER: -- and seconded. Was there a second?

DR. ANDERSON: Seconded.

DR. ZIEMER: Now discussion. We can -- we can change that.

DR. MELIUS: I would just argue that that gives us all the Bethlehem Steel and we end up --

UNIDENTIFIED: (Off microphone) (Inaudible)

DR. MELIUS: -- yeah, and whereas the last five are not, and I'd rather eliminate five of the Bethlehem Steel or something to that -- like that.

DR. ZIEMER: For now.

DR. MELIUS: For now, yeah.

DR. ZIEMER: And if we eliminate them, they go back in the pool.

MR. GRIFFON: Right.

DR. ZIEMER: How many Bethlehem Steels are you proposing we eliminate? And we will eliminate them starting with the bottom of the list, in fairness, I guess, and go up. There are how many Bethlehem Steels?

DR. MELIUS: I just counted eight, I

think.

MR. ELLIOTT: (Off microphone) In our frequency distribution (Inaudible).

DR. ZIEMER: There are eight Bethlehem Steels.

MR. GRIFFON: (Off microphone) You have to consider the other criteria, I would say -- I would argue, but...

DR. ZIEMER: Jim is -- are you proposing that we eliminate five Bethlehem Steels, Jim?

DR. MELIUS: Yeah.

DR. ZIEMER: And do you agree then that it would be the last five on the list of Bethlehem Steels? I mean we -- we just have --

DR. ROESSLER: We should look at cancers, I think -- I think we should look at other parameters. No?

DR. ZIEMER: I would argue that right now it's too early to do that. If you're simply sorting -- you're looking at facility as the variable, then in -- in keeping with the process, you just take them as they came. In other words, you're saying well -- you've reached -- you've saturated Bethlehem Steel with the third one. The next one we draw, we eliminate.

DR. MELIUS: If we keep in mind --

MR. GRIFFON: Here's -- I'll make a more specific proposal.

DR. ZIEMER: Okay.

MR. GRIFFON: I would propose to draw --

DR. ZIEMER: I'm sorry, I don't think we had a second on your motion yet, but -- are you -- are you re-motioning -- re-moving something?

DR. MELIUS: This may be a friendly amendment.

MR. GRIFFON: Yeah, I think it's a -- I think it's a friendly amendment. I still would say five Bethlehem Steel cases, but I would say let's drop number ten, 13, 14, 15 and 16 in the order down the list that they appear. And I looked at that based not only on Bethlehem Steel, but also I didn't want to do like -- I think there were a couple of colon cancers and a couple of lung cancers, so --

DR. ZIEMER: Well, that's the last five Bethlehem Steels.

MR. GRIFFON: Oh, is that the last five?

DR. ZIEMER: Basically that's --

MR. GRIFFON: So it's the same motion.

DR. ZIEMER: That's the same motion.

Did somebody second that motion?

MR. GRIFFON: I second Jim's motion.

DR. ZIEMER: Okay. The motion then is to eliminate those five Bethlehem Steels and pick up the last five on the list, and that's been seconded. Is there discussion on this motion? Robert, are you addressing the amendment?

MR. PRESLEY: No, I'll buy that.

DR. ZIEMER: Richard, addressing the amendment?

MR. ESPINOSA: No, not addressing the amendment.

DR. ZIEMER: We're addressing only the amendment to drop five Bethlehem Steels. Yeah, Tony?

DR. ANDRADE: Just one comment on the next to the last Bethlehem Steel. Here we have a really high POC, and then you have the lung cancer situation, which is what we really kind of expected. I think that that would be a very interesting case to ring out.

MR. ESPINOSA: That's --

DR. ROESSLER: (Off microphone) There are two of those, though.

MR. ESPINOSA: Yeah, there's one on --

DR. ROESSLER: (Off microphone) (Inaudible) one is in the list.

MR. GRIFFON: Yeah, the first --

MR. ELLIOTT: Could we only talk one at a time, please, for our recorder, who is a champion, but he is somewhat disadvantaged when he's got six people talking at once.

DR. ZIEMER: So Tony, are you speaking against the motion to drop those five?

DR. ANDRADE: No -- okay. I recant. It is pointed out to me there's another lung cancer above it.

DR. ZIEMER: And again, keep in mind, we're not filling the matrix with 20 samples.

MR. GRIFFON: I just want to make one -- one informational comment that I have --

DR. ZIEMER: Informational comment? Yeah.

MR. GRIFFON: I have the matrix pulled up, the proportional method that we proposed, and I think Bethlehem Steel -- I don't know if this is a current number, but I have 417 cases. So if you just did -- there were 417 overall cases, so I don't know -- you know, that's another argument for -- not to sample too many --

DR. ZIEMER: Yes.

MR. GRIFFON: -- in this first round of --

DR. ZIEMER: Thank you.

MR. GRIFFON: -- sampling from Bethlehem Steel.

DR. ZIEMER: Thank you. See, this is exactly the kind of run you'd like to get if you were in Las Vegas. You're putting your money on Bethlehem Steel. Right?

DR. ANDERSON: Right.

DR. ZIEMER: Okay. Are we ready to vote on the motion to amend, which would be to eliminate those last five Bethlehem Steels and add the last five on the list, and that would give us our list of 20?

All in favor, aye.

(Affirmative responses)

DR. ZIEMER: Any opposed, no?

(No responses)

DR. ZIEMER: Any abstentions? Let me -- I'm going to ask a question here. On doing this, do Board members have to recluse (sic) themselves if they're associated with one of these facilities?

MR. ELLIOTT: Yes.

DR. ZIEMER: No, I think -- I think it's an issue we have to --

MR. ELLIOTT: Yes. No, it is an issue that you have to face. If -- I'll remind you of your conflict of interest waivers. You have -- each of you -- may or may not -- have a waiver letter, and in that waiver letter it will specify what you must affirmatively recuse yourself on, which site -- or sites. And I have a listing here if it helps, if you don't remember what your waiver letter says.

DR. ANDERSON: So did that --

DR. ZIEMER: Now --

DR. ANDERSON: -- (Inaudible) not have voted on Bethlehem is the question.

DR. ZIEMER: Well, but you see, the bigger issue is in voting on that you are also voting to include some other sites. It's not --

MR. ELLIOTT: That is not a problem, I do not believe. It's when you get into --

DR. ZIEMER: You're not really doing anything with respect to evaluating it. It's just the list of --

MR. PRESLEY: (Off microphone) Somebody

else could take that site.

MR. ELLIOTT: That's right. That's right. You should recuse yourself if someone wants to give you a site to review -- a case from a site to review that you are -- your waiver letter says you must recuse. This general kind of voting I think is -- on -- on what to include or exclude, is not a problem at this point.

DR. MELIUS: Just on the conflict of interest issue, like for myself, I believe I would have conflict, but it wouldn't be on any parameter that would be available here. It wouldn't be until I saw the case file.

DR. ZIEMER: Right.

DR. MELIUS: It would be an occupational, I -- I don't think it's likely to occur, but -- but it would be -- so -- so some of that may be -- you know, like at least for me, it's -- I won't know until I see the case.

MR. ELLIOTT: That is true, you wouldn't know until you saw the case name.

DR. MELIUS: Right.

MR. ELLIOTT: The name of the individual.

DR. MELIUS: And some more information,

in which case I think then -- then we have to have a procedure for --

MR. ELLIOTT: Right.

DR. MELIUS: -- reassigning that case.

MR. ELLIOTT: That's -- yes, that's correct.

DR. ZIEMER: Okay. We have now accepted a list of 20 cases that will constitute the initial review. I want to call on John Mauro to describe for the Board how your team will handle this, and then that will help them to understand what we have to do.

MR. ELLIOTT: Can I verify for the record who made that motion? I think Dr. DeHart seconded it, but --

DR. ZIEMER: Well --

DR. MELIUS: I did.

DR. ZIEMER: -- we're going to attribute it to Jim Melius.

MR. ELLIOTT: Okay. Now we stand corrected.

DR. MAURO: Our proposal lays out basically what I'll be summarizing, and our proposal, as you folks probably know, is part of the contract. So in essence, when the first set

of 20 cases come in, at that point I distribute -- well, first and foremost, this issue of -- Privacy Act issue is critical 'cause I believe these cases will have the identification.

DR. ZIEMER: Yes.

DR. MAURO: So first and foremost, we have to make sure that we are all cleared from a Privacy Act training perspective, and everyone understands the seriousness of this. There will be -- right now I anticipate -- we have identified what I call case managers. These are five very senior people, all of whom have some specialty, expertise. They have many, many years of experience, advanced degrees, but some of them have more expertise in external, some more internal, some really know an awful lot about uranium or plutonium. We have five lead people that I call case managers. Okay?

What I'm go-- what I -- my plans are to distribute all the 20 cases to these five people, in addition to distribute it to -- for some of those -- some of those sites are currently in the pipeline for site profile reviews, so for those cases -- for example, as we all know, Bethlehem Steel is the first one that looks like is going

to move through our pipeline for site profile review, so by all means the task leader for Bethlehem Steel will also receive the cases dealing with Bethlehem Steel. Because what I'd like to do is to make sure there's a linkage between the case managers and the folks who are leading the tasks regarding site profiles, so we take advantage of the knowledge base that currently exists within our team on Bethlehem Steel, for example.

Okay, so let's -- let's say -- so -- so on -- the first step in the process would be to distribute the -- the C-- I assume -- they'll come out in the form of CDs with -- with all the records, would probably go out to on the order of -- I would say perhaps eight or nine people within our organization will get them all. Okay? They'll all have probably a few days just to scan through them -- okay? -- so they get an appreciation for what the -- the nature of the problem is. Then we're going to meet in McLean. In the McLean meeting, it's at that point where we're going to deal them out, so to speak. My thinking is right now, each case manager will get -- we have five case managers -- will get four

cases. Okay? Each person will get four cases.

We have our procedures. It's all laid out in our proposal. We have an Appendix C to our proposal, which is the procedures that we're going to follow to perform these reviews. One of the things that I'm starting to realize is that those procedures are -- probably will -- are -- are a living document. That is, as we learn, we're going to find out that they may be too cumbersome. Because of the efficiency approaches you folks have taken, it may not be necessary to go through the -- but I'm getting adrift here.

So what happens is each person is going to have a mandate. Each case manager will have a mandate. This mandate will be to review that -- their -- his or her four cases within a certain time period and with a certain work hour allocation, so that they have a budget. And then they're going to dive in.

Now they have the -- now within the work hour budget they have, they can draw upon any one of the 33 people that are on our team. That is, we have a team -- team of 33 individuals, some of which have very, very specialized expertise -- for example, in interpreting film badge

dosimetry. They can draw upon that expertise, any expertise they care to, but within the constraints of their work hours and the time allotted to them.

When they're through, they're not going to have a report but they will have their notes, their findings and their -- their initial perspective on the areas where there may be strengths or weaknesses or problems with the particular case. We will all reconvene -- let's assume for now, for the time being, that we could do that in one month. Okay? So on day one, we -- we have this meeting where we deal out all these cases. One month later, we all reconvene back in McLean and each person will get up before the rest of our team and tell their story regarding each case and explain what they found and their rationale for what they found. It'll be discussed. I'm envisioning that -- for -- each person will require about a half a day, so we probably would have a three-day meeting in McLean of the team, go over all 20 and have a chance to interact. Then each pers-- after that interaction, each person would go back and write his report regarding his findings, in light of

the discussions that were held. Once that report is completed, it represents a draft report. At that point that draft report will undergo our QA process. We have a QA -- our QA -- you'll see our QA procedure, make sure everything is signed off as appropriate, and then it's delivered to the Board.

Now I understand at some point in this process the Board want-- you mentioned the Board being involved where -- any place in the process either the Board or NIOSH's folks certainly could step in.

DR. ZIEMER: Let me describe what the subcommittee was thinking about in that regard. At the point that the team gets together in McLean the second time, which is when you share your information but you don't have a written report, that for each case as it came up -- like at 8:00 a.m. on a certain day, this case is going to be discussed, and let's say that Mike and Tony were the Board contacts, they would be on a conference call with your team, have the opportunity to feed comments in or -- and hear your discussion. You're then going to develop a written report for that case --

DR. MAURO: Yes.

DR. ZIEMER: -- and later, probably the day before the Board meeting where we get together, those two would meet with your team person --

DR. MAURO: Okay.

DR. ZIEMER: -- for reviewing the final report, and that would have to happen 20 times. We have essentially ten Board members, so each of our people are going to have several cases. Let's see, how's that going to work out? We're going to have five teams time-- we're going to have four cases apiece, also. So any one of us would have -- and in between would have the opportunity to interact by -- and Leon, but -- 12. And in be-- and because of conflict of interest, things may be -- maybe not everyone will have that same total cases, so we'll have to divvy that up. But also have the opportunity to e-mail your contact person if you have comments to feed in in between.

DR. MAURO: Uh-huh.

DR. ZIEMER: And then the other thing that will have to happen with all those cases is the rollup, which will constitute the official

report, which is the public report which rolls up all the cases into the summary -- whatever we called that, statistics -- not statistics but the summary findings, which is kind of a compilation of all of that. That's how we're envisioning it. Now -- so...

DR. MAURO: Could -- just logistically -- so there is going to be -- that -- there's that one month where we receive the documents. Okay? We have everyone go through their review process. Okay? Not quite sure whether it's going to require a full month, or maybe it'll be just a couple of weeks, so -- but we know what we have here is -- what we really -- what I'm hearing is what we have here is two-month increments to deal with 20 cases. Basically over that two-month period we want to go from the 20 cases arriving at SC&A to two months later being in a position to give a pre-- to deliver hard copy or electronic versions of our reports regarding each case -- which of course would be confidential -- and also prepare aggregate report that would be appropriate for presentation before the Board.

DR. ZIEMER: Right, the rollup.

DR. MAURO: And that all has to happen over that two-month period. During that time period there will be a lot of interaction between our case managers and the two individuals that would be assigned to each case, so there'd be a very active dialogue there. Okay? That's -- that's fine, though. Okay.

DR. ZIEMER: That's how we're envisioning it. Gen?

DR. ROESSLER: Do the Board members involved get the CD at the same time that --

DR. ZIEMER: Yes. You will have the CD -- you'll have the same body of information as the person working it up, yes.

Robert?

MR. PRESLEY: Is that going to give you enough time, if we all meet together the day before the meeting, to roll up a final report?

DR. MAURO: Yeah, the logistics of this is -- I'm not sure. I don't know -- I can't -- you know, this is...

MR. GRIFFON: (Off microphone) This is a pilot (Inaudible).

DR. MAURO: Let's think about it. I mean what do we have? Okay.

MR. ESPINOSA: (Off microphone) (Inaudible) with conference calls and stuff.

MR. PRESLEY: Well, that's what I'm wondering, if --

DR. ZIEMER: Don't all talk at once, now. Robert, then --

MR. PRESLEY: That's what I'm wondering, if we cannot make some decision on the four cases that we've got sometime prior to that meeting and say okay, you know, we either agree or we disagree, or here's our findings that we don't agree with, so that when we come back to the meeting, a lot of this is going to be done.

DR. MAURO: I would suggest that once we have our internal draft report, we say okay, I think we have -- you know, we have our orals, the orals, and you'll be listening to the orals --

MR. GRIFFON: Right, right.

DR. MAURO: -- so you okay, so you'll get your first sense of where we're coming at, and we'll calibrate at that point. You'll be at least at a point that -- where we get some feedback, are we seeing the monster the same way, are we seeing the issues the same way. So there's the first stage of calibration. That's

good. So that -- and we'll have a whole month in front of us now. Okay? Or more, you know, because -- or more. But I think what is important, I hear what you're saying, is I think we deliver our report in draft form to all 20 of them a week before the meeting, so that gives us -- 'cause the logistics of interaction and refinement -- if we -- that would be the ideal situation, if we could actually go from the oral presentation, three weeks later have a draft report that will go to you folks, and we have an opportunity to discuss it, that would give us time to -- especially this first time through. I mean this is ideal. If we can do that, that -- I think that would give us the time -- you're absolu-- the day before will not work. You're absolutely right, the day before will not work.

DR. ZIEMER: Okay, thank you. That's a good point. And the -- the day before the meeting -- I think as we envisioned it, the full Board would be sitting there in terms of various working groups. But it now becomes a full Board session -- closed session 'cause we're dealing with cases -- where each team would present their findings and you would have already seen what

your particular cases involved, and we would have an opportunity to look at the draft rollup at that time and consider that, as a full Board.

MR. GRIFFON: One question I had on the -- you know, we would have the CDs and access to the -- Larry said the same information that the contractor would. One exception I've been thinking about since the presentation yesterday was the reference database, and I wonder if there's any way that the Board can get the same access that the contractor has to NIOSH's reference database. Because if we read through these dose reconstructions and they reference certain documents that we don't have -- I suppose we could go through this process of requesting them, but if they're all in this database, it might be a lot more efficient if we had the same access that SCA has. I don't know what that involves, but if that's possible, I think that'd be helpful.

MR. ELLIOTT: I certainly agree it'd be helpful. I'm not sure how we've got it arranged to give access to -- to you. John, have you -- Jim -- Jim's not in the room right now. I would need his input on this.

DR. ZIEMER: We can follow up on that and --

MR. ELLIOTT: But let me offer -- I'm a little bit lost here on the dialogue between Bob and John. The full Board can't meet as a full Board on a conference call. That's a full Board meeting.

DR. ZIEMER: No, no. No. No, this is -- this -- the conference calls are only individual team members with their contact. We're talking about a full Board meeting the day -- a closed Board meeting the day before the two -- the regular open meeting where we would hear all of the cases --

MR. ELLIOTT: Understood. Understood.

DR. ZIEMER: In other words Bob would say -- Bob would present his four cases and their findings --

MR. ELLIOTT: In order for us to effect a closed meeting, we need to understand how much time you want and what -- and we have to state a purpose for that, which I think we know for sure what that purpose is, but the time element is a little bit nebulous to me right now, so if you want a full day, that's what we'll -- we'll ask

for and get. If you want a half a day, that's what we'll ask for and get. So --

DR. ZIEMER: We're talking about I think hearing 20 ca-- no, this -- this becomes the full Board, not the subcommittee. This becomes the full Board to hear the cases summarized. 'Cause we're all going to present to each other the cases that we're responsible for. The contractor would be there --

MR. GRIFFON: To hear -- to hear the cases, and then I suppose also the --

DR. ZIEMER: And the findings --

MR. GRIFFON: -- summary -- and the summary rollup --

DR. ZIEMER: -- and the draft summary --

MR. GRIFFON: Right, right, I think we --

DR. ZIEMER: And then the draft summary could be brought -- well, would be brought to the open meeting.

MR. ELLIOTT: The draft summary, if it's prepared in time, could be sent to each of you as a pre-decisional, deliberative document that you would be required not to share with -- you know, but you could at least get your eyes on it before

you came together in a group, in a meeting.

DR. ZIEMER: Gen Roessler and then Robert.

DR. ROESSLER: On the mechanics of receiving these CDs and receiving these reports, which are all confidential, I'm trying to figure out how they're going to arrive and how we're going to handle it if we're on travel or something when they arrive.

MR. ELLIOTT: Next week we will prepare the CDs for you and send them out, so we need to know where you want those delivered to, and we will Fed Ex them to you. So -- and I was just reminded that the Fed Ex package will be marked confidential and to be opened only by you. These won't -- the other way we can do it is registered mail, but I'm more confident that Fed Ex is the way to go.

DR. ZIEMER: Robert?

MR. PRESLEY: The only problem that I see with this is -- is that we will have to make sure that when you have your review where we call in is that -- I presume you're going to do that in three days. We could -- and it'll all be the same conference call number -- that we recuse

ourself to make sure that -- like myself -- I don't listen in on anything that I shouldn't be listening in on.

MR. ELLIOTT: I think you're going to have to coord-- this is a logistical nightmare for your contractor to coordinate the conference calls with the appropriate members on the appropriate cases. Otherwise, you can't just call in and sit and listen.

DR. ZIEMER: He's going to have to have a list of who the team members are for each case. When that case is ready, they probably will call from your end --

MR. ELLIOTT: And it won't be the other members of the Board.

DR. MAURO: There is a logistics problem because you see, we're going to sort -- think of it like this. It'll be a person. He'll be a case manager. He'll have four cases. Some of those cases -- say in your case -- might be perfectly appropriate for you to sit in on that two-hour, three-hour -- but some of them, you may not. So what we will do is -- I think it's important on our part to understand fully -- you know, that is -- case manager number one has

these four cases. He's -- at this time period on this day, he's going to give a presentation before our crew on those four cases. You will certainly be informed of that, and then you'll be in a position to have -- you know, to alert us. When we're ready to move on to the next case, the problem then becomes if you'll have to recuse yourself from that one -- we're talking about -- that means someone else would have to come in.

DR. ZIEMER: Right.

DR. MAURO: And you need to know -- you all need to know our plans well in advance so that you -- we could work this out. This is a tough nut.

DR. ZIEMER: Right.

DR. MAURO: So -- but, yeah. But we'll give you that information. We'll give you that information.

DR. ZIEMER: I want to throw one other thing into the hopper. Thank you, John. We appreciate that; it's very helpful.

One other thing in the hopper is that we have proceeded on the assumption that these are 20 basic reviews. The Board has the option of saying that we want to do some advanced reviews,

although my recommendation is this first time around we might be better just to do this, learn the process, before we get into advanced reviews -- unless anyone thinks that we should do an advanced review this time around. Yes, Henry?

DR. ANDERSON: I thought at the subcommittee meeting we discussed that we start them all out as basic, and then at the verbal discussion it may say this is, you know -- we would then select some of those, rather than randomly select for in-depth review. I mean that was one way to go about it.

DR. ZIEMER: Right, and we had some discussion as to whether or not you'd want to do a random selection on advanced reviews or if you want to pick a case. You can argue either way. I was arguing for -- for not sort of prejudging which ones would be the advanced reviews based on what you find, but you can argue both ways. But anyway, I think for this round, unless there's strong sentiment otherwise, we'll consider these as 20 basic reviews. We learn the process, the contractor learns the process. We're getting up to speed, as it were. Is that -- any objections to that?

Rich, you have a comment?

MR. ESPINOSA: Not a comment, just a question. I was just kind of wondering how the teams'll be selected.

DR. ZIEMER: We're going to do that in a few minutes. That is -- to some extent, there'll be a self-selection process 'cause you know the ones that you can't be on, if any, and -- and we start looking for volunteers and see how things proceed.

Roy?

DR. DEHART: For convenience, can we just number these sequentially, so we can have one, two, three, four -- and how do we identify them otherwise?

DR. ZIEMER: I'm going to -- I'm going to tell you you can unofficially number them, but I've been told that we are not to associate any identification numbers with cases. So we don't want to refer -- can --

MR. GRIFFON: (Off microphone) Why not?

DR. ZIEMER: We'll get to --

MS. HOMOKI-TITUS: You can unofficially number them to assist you in your process, and then once you sort them, NIOSH will send you --

DR. ZIEMER: Some sort of number.

MS. HOMOKI-TITUS: -- some sort of -- they'll be identified when they're sent to you.

DR. ZIEMER: There will be -- there will be a number to link it to a case number, eventually. But in the open meeting we cannot have a linkable number, so these are not numbered right now. But for convenience, we can call these one through 20.

DR. MELIUS: But going forward, there will be a --

DR. ZIEMER: There will be a specific number. Pardon me?

MR. GRIFFON: I'm just -- I don't know if this is going to be an issue down the line. I think it would be easier just to have the linkable number. I mean you think of the CEDR database, everything in there has a CER ID number, which is linked back to a file --

MR. ELLIOTT: We could --

MR. GRIFFON: -- that's only held at -- and that's public domain.

MR. ELLIOTT: You could -- you saw this earlier where on the previous runs Todd did for you he had A-1 --

MR. GRIFFON: Right, right, right.

MR. ELLIOTT: -- B-1, we --

MR. GRIFFON: That's what I'm saying, that would be --

MR. ELLIOTT: -- could do that here. We can just assign these a number. He probably already has them assigned an identifier where we can key back to the claim number.

MR. GRIFFON: My argument is, why don't -- if we had that on the -- on the sheet right here in front of us, then the number we assign would be the number -- you know, there'd be no confusion.

MR. ELLIOTT: Fine, fine. Todd, do you know what your numbering system is?

MR. GRIFFON: I don't -- Liz might disagree with me, though. We had this discussion --

MS. HOMOKI-TITUS: I'm sorry, I do disagree with you. I realize that there's another database out there that is numbered that way, but it probably shouldn't be, and I can't allow you guys to violate -- I'm not going to advise you to violate the Privacy Act in that manner. Like I said, you can informally number

these one through 20 so that they're --

DR. ZIEMER: Right now it's just --

MS. HOMOKI-TITUS: -- convenient for you to use --

DR. ZIEMER: -- for assigning, it would be one through 20.

MR. GRIFFON: (Off microphone) Okay, I'm not going to (Inaudible).

DR. ZIEMER: Just do it sequentially.

MR. ELLIOTT: You assign a number, we'll have the key. Okay? It's six of one, half a dozen of another I think, in my mind, but just so everybody here is clear, you need to have a PC that will handle a compact disk that will open up PDF HTML files. Okay? I hope everybody -- that's universal, I think, pretty much standard now. We will work with you on getting you access to our database systems that you heard about yesterday that ORAU has. We're going to have to figure out how best to do that. You're probably going to have to load what we call CITRX on your computers in order to access that database, either through our system or -- probably it'll be through the ORAU system, but we're going to have to work on that with you --

DR. ZIEMER: Wanda, did you --

MR. ELLIOTT: -- individually.

DR. ZIEMER: Wanda?

MS. MUNN: I was going to suggest that if our contractor could group the cases that his people were going to look at in such a way that they -- they obviously would themselves be people who did not have to recuse themselves from those sites. Then if they knew the sites we needed to be recused from, it would be simpler for both them and for us to match the fact that these people cannot look at these sites, these people cannot look at those. It would be simpler in the long run. It would be difficult, I think, at the outset to set that up, but it should be easy for us to identify which sites we must recuse ourselves from.

The other question that I had is -- and when we finish the rollup of the summary findings, who is going to present them to the Board?

DR. ZIEMER: We didn't get that far.

MS. MUNN: Well, if we're going to do it (Inaudible).

DR. ZIEMER: This is an audit that is

coming -- this is a report that is coming from our contractor, I think, to the Board. We will have seen it, but my -- my inclination is that the contractor presents their summary and the Board then takes action on it. That's how I would see it, unless others see it in some different way -- unless you're volunteering to present it to us, Wanda.

MS. MUNN: No, thank you. I'm willing to recuse myself.

DR. ZIEMER: One other related thing I'll just throw into the mix here to make sure we cover the bases. The IMBA material that some have requested I believe is now available -- Larry, can you --

MR. ELLIOTT: You ready to hand that out?

DR. ZIEMER: You want to speak to that and tell us the status of that?

MR. ELLIOTT: We are ready to hand out IMBA. You will each receive a disk with your name on it. Your contractor will have a disk that they can load on their intranet for their use. I will also ask you to sign a non-disclosure statement at this point in time. You

should be aware that this disk has coded language in it so that if in fact you did share it with somebody, we can trace it back to your disk, and this is part of the agreement, the end-user's license agreement that we had to negotiate with the NRPB.

I also think you need to discuss a training session.

MR. PRESLEY: (Off microphone) Yes.

DR. ZIEMER: Larry, you're specifically talking about an IMBA training session -- or a more general one, or both?

MR. ELLIOTT: Well, I think IMBA first, but -- I don't know. Perhaps a training session overall. I don't know how you feel about this, but IMBA is a -- the biological models themselves are complicated. The engine that runs it, you know, takes -- is fairly intuitive, but it does take, you know, a little bit of guidance and walk-through just to make sure that you're familiar with it and understand what features it has and how it can do work for you. So -- and we -- I would -- I would suggest -- I would offer that our contractor, ORAU, has a -- an approved set of tutorial procedures on IMBA that has been

used across all of their dose reconstructors. And if you want to avail yourselves of those procedures, we'll make those available to you. It will provide at least some consistency in approach. It will also give you some insight I think into the type of training procedures that ORAU has developed in this particular situation with IMBA.

DR. ZIEMER: So would that -- would that serve the purpose then -- in other words, this could be done without going to Cincinnati or something like that? Rich is shaking his head yes.

MR. ELLIOTT: Dick, would you like to come up and speak to that, as to how you see that working?

DR. ZIEMER: While Dick finishes chewing whatever he's eating, let me ask if -- if we can get a copy of this for each Board member, it doesn't have to be the signed copy, but once I give this back, I don't remember what I agreed to.

MR. ELLIOTT: Oh, yes, we will --

MS. HOMOKI-TITUS: Once you all sign it, we'll make copies for each of you.

DR. ZIEMER: Okay, thank you.

DR. ANDERSON: (Off microphone) Yeah, but it --

MR. ELLIOTT: Please speak into the mike.

DR. ANDERSON: The question is, it says here we have to register, and how do we do that?

MS. HOMOKI-TITUS: I believe that the way you do that is through the software. Just like any other software that you received from Microsoft, I believe it'll lead you --

DR. ZIEMER: Lead you through it.

MS. HOMOKI-TITUS: -- possibly will -- does it lead you to a web site where you register?

DR. NETON: (Off microphone) No.

MS. HOMOKI-TITUS: No.

DR. NETON: (Off microphone) I'm sorry --

MS. HOMOKI-TITUS: Okay, Jim's going to explain that then.

DR. NETON: I'm sorry, I got taken away for a second. Where are we at?

MR. ELLIOTT: We have issued IMBA and the question on the table is once they sign the

disclosure form, how do they register?

DR. NETON: Right. That'll -- that'll be -- that'll take place at the time that the EULA is issued, the end user license agreement, which is still in process. So any -- any notations in there that talk about signing the end user license agreement -- I think it says pursuant to the agreement. Well, the agreement has not been finalized yet, so this is a conditional sort of usage until you sign the ultimate end user license agreement. At that point it'll become clear as to how to register it with -- with ACJ* & Associates.

DR. ZIEMER: So there'll be something else that --

DR. NETON: There'll be an additional requirement for you to sign the contents or the -- agree with the conditions of the end user license agreement. This is an interim usage we worked out with ACJ & Associates where the Board is authorized to use it fully under the conditions that are in that piece of paper you have now, and there will be more paperwork to come. That's about all I can tell you.

We have also made --

DR. ANDERSON: I mean that's not -- that's not what we're signing.

DR. NETON: It's not what you're signing.

DR. ANDERSON: No.

DR. NETON: You're not signing the end user license agreement.

DR. ANDERSON: No, it says we have to do it, and then it also says we're required to register, and --

DR. NETON: Right.

DR. ANDERSON: You know, and then it says if we're in violation -- I mean it's a legal document that I'm agreeing to register, and I want to -- I want to register now for whatever I'm supposed to --

DR. ZIEMER: Well, it doesn't say when you have to do that, it says --

DR. ANDERSON: No, but...

DR. NETON: This is --

DR. ZIEMER: It's a little like fishing, you got to do it before you get caught.

DR. NETON: -- (Inaudible) issues and I can't speak to that. (Off microphone) Maybe we could put out some (Inaudible).

MS. HOMOKI-TITUS: Since it doesn't give you a limitation on when you must do this, I'm going on the record and telling you that you don't have to register it until we have a EULA. You'll have access to a copy of the EULA. This is just a preliminary -- we wanted to try to get this to the Board so it's the best we could come up with to try to protect the software manufacturer and us and you all. So there'll be a new agreement once the EULA's finalized.

MR. ELLIOTT: We don't expect the EULA to change based upon its content at this point in time. The problem here is that we're dealing with the NRPB and in -- in England right now, and we had some language inserted into the EULA about the U.S. Federal Acquisition Record -- or Regist-- what is it, Register --

DR. NETON: Federal Acquisition Regulations, a FAR.

MR. ELLIOTT: -- Regulations, and they're not familiar with it. And they're also on vacation during the month of August, and so that's been part of the difficulty in getting this put into place.

DR. ANDERSON: You know, I'm -- I'm just

saying that as a legal document, it says I will, in accordance with the terms set forth in the end user license agreement --

DR. NETON: I think it's pursuant -- pursuant to the terms or something like that. I mean there's --

DR. ANDERSON: No, in accordance with the terms set forth --

DR. NETON: I understand pursuant to the EULA I am required to register, so there is no EULA --

DR. ANDERSON: No, no, number three I'm looking at now.

DR. NETON: Okay.

DR. ANDERSON: I don't know what the terms are, so how can I follow them if I haven't seen the EULA --

DR. ZIEMER: Your intent is to follow them and --

DR. ANDERSON: Yeah, well, I --

DR. ZIEMER: I would -- I --

MS. HOMOKI-TITUS: Right, this is your intent to follow them, and we -- as soon as the EULA is agreed to, we'll provide you a copy of it.

DR. ANDERSON: I mean --
DR. ZIEMER: But you know, if --
MS. HOMOKI-TITUS: Basically what you're agreeing --
DR. ANDERSON: I'm just saying --
DR. ZIEMER: But if you're hesitant --
DR. ANDERSON: -- as a legal document --
MS. HOMOKI-TITUS: If you're hesitant, we can pull the document back and take your software back.
DR. ZIEMER: -- just -- we can wait, but give back the disk.
MS. HOMOKI-TITUS: That's the best that we can do at this point.
DR. ANDERSON: Okay.
DR. ZIEMER: Gen Roessler has a question.
MR. ELLIOTT: Would it be helpful if you summarize what's in the EULA as we understand it now?
DR. ANDERSON: Yeah, that would be helpful.
DR. NETON: The conditions -- to my knowledge, the conditions of the end user license agreement are very similar to what you're looking

at here as far as non-disclosure and those type of issues -- sole use for -- on this project. That's -- it's standard -- it's standard license agreement -- no different that -- well, I won't say no different, but very similar to what you do when you got an Excel spreadsheet product from Microsoft, I will only use this for my own purposes or the conditions for which it was purchased, that kind of stuff. I mean there's no real surprises there. It's just that we're dealing with a foreign country's regulations versus ours.

DR. ZIEMER: Gen Roessler has a comment or question.

DR. ROESSLER: Well, this may be a detail, but I think it's an important one. The thing I'm going to sign says it's version 3.1. It says that in several places. The disk I got says version 3.2.03.

DR. NETON: Okay, that -- I think -- Liz can concur, I hope, that if you initial and date --

DR. ROESSLER: Can we just cross it out?

DR. ANDERSON: Oh, good.

DR. NETON: -- put the -- put the right

version there and initial and date it, I think we'll accept that.

MR. PRESLEY: Question.

DR. ZIEMER: Robert?

MR. PRESLEY: When I leave here, I'm going to leave the country for three or four days, and all of the -- all of my luggage and everything like that's subject to be searched. Should I let you all go ahead and send this to my house?

MS. HOMOKI-TITUS: Yeah, we can do that.

DR. NETON: We can send that to your home. That's not a problem.

MR. PRESLEY: I don't know, but it's -- you never know.

DR. NETON: One thing that I will caution you is if you notice in small print on the cover, your name is embossed, so it is actually registered to you -- not on the cover, but on the disk itself, it is licensed to you. And I've been told by the vendor, and this is not specially put in there for the -- by the Board -- or for the Board, but they can track who it's licensed to if copies of printouts end up circulating about with other users, that sort of

thing -- just to point out that that feature is part of the software.

MR. ELLIOTT: I already did.

DR. NETON: Oh, I'm sorry, I missed that.

DR. ZIEMER: Wanda.

DR. NETON: I'm being redundant here.

MS. MUNN: An easy question, I think. The description identifies 256 megabytes of RAM recommended. How much does it actually take up, how much space -- disk space, do you know?

DR. NETON: I have no idea. Oh, that's not disk space, that's RAM, so that would be memory.

MS. MUNN: I shouldn't say disk. How much memory?

DR. NETON: I think that might depend on what you're running. If you're running the thorium model, which has all kinds of daughter -- progeny, rather, it would take up more, but I can't tell you.

MS. MUNN: Okay, that's fine.

DR. NETON: I think the specification basically says if you run all the features and you have 256 megabytes, it shouldn't crash. It

should run.

MS. MUNN: And everything else on my system goes down.

DR. ZIEMER: Gen Roessler has a comment?

DR. ROESSLER: (Off microphone) (Inaudible)

DR. ZIEMER: No comment? Rich, a comment?

MR. ESPINOSA: I can see myself putting this on pretty much every computer I use -- one at the union hall, one at work, one at home and one on my laptop, you know. Are there any legal issues with that? I can imagine one being with the union --

MR. ELLIOTT: You will need to make sure and assure us that your -- each computer you load this on is password-protected --

MR. ESPINOSA: Okay.

MR. ELLIOTT: -- and has a time out on it. We'll have to send you all a copy of our -- I think you've already done this in some cases -- have they not done the SAFE -- if you come to our offices, the last -- the working group session, you had to go through SAFE, which is a training session on how to protect your computer and

privacy information on your computer.

MS. HOMOKI-TITUS: The only thing I want to be sure that you understand is if you put it on all of those computers, you are the only one who's allowed to use it.

MR. ESPINOSA: Yeah, I know.

MS. HOMOKI-TITUS: You -- as long as you have a way of protecting it, if you put it on a computer, then no else is going to be able to use that program.

MR. ESPINOSA: More than likely I'll just keep it on the laptop, but --

DR. NETON: (Off microphone) Yeah, I would (Inaudible). That would be my recommendation.

UNIDENTIFIED: (Off microphone) I think that'd be -- you'd better be real smart, Rich.

DR. ZIEMER: Any other questions or comments?

(No responses)

DR. ZIEMER: Do you wish to proceed and select the teams at this point for --

MR. ELLIOTT: (Off microphone) Can we have Dick speak to what you -- your question earlier since he's (Inaudible)?

DR. ZIEMER: Oh, yeah. What was the earlier question?

MR. PRESLEY: (Off microphone) Training.

DR. ZIEMER: Oh, training, yes. Dick?

DR. TOOHEY: Okay, very briefly, we've got about half a dozen training modules that -- in the package for IMBA, and they start by just walking you through the program. Then there's a couple where you get a sample of bioassay data and it walks you through entering that, running the models. And then the final part is the test, which gives you one or two sets of bioassay data that you get to run yourself, and if you don't get the right answer, you don't get to do dose reconstruction under our policies. But we can make that available to you, either what we've done before, which is give you access to our server, or as, you know, stand-alone modules or whatever.

DR. ZIEMER: So it's self-tutorial. Right?

DR. TOOHEY: Yes, it is. It's --

DR. ZIEMER: Wouldn't it be easier just to --

DR. TOOHEY: -- set up for --

DR. ZIEMER: -- do a disk?

DR. TOOHEY: -- remote users.

DR. ZIEMER: Yeah.

MR. ELLIOTT: Could you just send them a disk?

DR. TOOHEY: To the best of my knowledge and belief, to coin a phrase, we can do that. But you know, until I talk to my IT guys, I won't guarantee it.

DR. ZIEMER: If you will, try to find a way to get that training available to everybody. GIBSON HAS LEFT THE BUILDING.

DR. NETON: I have one more -- Larry, did you mention the fact that SC&A also is receiving a copy of this for distribution?

MR. ELLIOTT: Yes, and then there was a question that I attempted to answer with Todd's assistance about getting the Board members access, as we have given Sanford Cohen Associates access, to the databases. Now we need to figure out how to do that, whether it's through ORAU and give each member of the Board CITRX -- I don't know.

DR. NETON: No, this is a different issue. If we're talking about the site research

database that I discussed yesterday, that would -- that would go through ORAU. That's outside of the firewall, and so I'm not sure how that -- how did that come up in relation to IMBA? I guess I missed --

DR. ZIEMER: No, not in relation to IMBA.

MR. ELLIOTT: This is just in relation to reviewing cases, how can they get access to the documents that are relevant --

DR. MELIUS: (Off microphone) The reference documents.

MR. ELLIOTT: -- the reference that are considered relevant to the case.

DR. NETON: Fair enough. We'll have to work with ORAU to -- this would require a VPN, I believe -- a Virtual Private Network setup -- much like what was established with Sanford Cohen & Associates, on each of your computers. And there's also some Privacy Act training that's mandatory under ORAU's policy.

DR. TOOHEY: (Off microphone) I'll waive the Privacy --

DR. NETON: He'll waive the Privacy Act for the Board. They've had several Privacy Act

training sessions. So -- but yeah, it is -- it is technically doable. We'll just have to work out the logistics -- through ORAU, though.

MR. ELLIOTT: So I want a commitment that we're going to do that very quickly -- within the next -- can we say within the next two weeks, we're not only going to deliver these disks, we're going to deliver the IMBA training modules, we're going to deliver whatever mechanism we need to set up to allow them access to the data.

DR. NETON: I will commit for Dick, who's standing to my left here, let the record show.

MR. ESPINOSA: It might be a good idea to send out the confidentiality forms again. I've lost mine, but I know what I'm excluded from.

DR. ZIEMER: Which forms are you talking about?

MR. ELLIOTT: I have the conflict of interest sheet here for when you start your selection right now. I think -- did we get Mike Gibson's IMBA disk to him and get his non-disclosure statement?

UNIDENTIFIED: (Off microphone) Yes.

MR. ELLIOTT: Okay. And so we need to take care -- you know, in your selection, I can address each of your individual conflicts if you don't remember. If you also recall, every year you have to go through a new conflict of interest disclosure, filing an OGE 450 form and then that will trigger a new waiver letter.

DR. ZIEMER: You should have gotten that very recently 'cause this is the time of year they do it, isn't it, or is it --

MR. ELLIOTT: Yes, it's ongoing right now, and I will offer this, that there are additional -- or new -- new sets of eyes looking at these things and asking questions, and so we're going through that process at this point in time in the year. But you are to operate under the current waiver letter that you have been given. And if you have any questions about that, I have a chart here that speaks to each individual's -- Board member's conflict.

DR. ZIEMER: Okay. As far as the team assignments, now, how do you wish to proceed? Do you want to volunteer for certain ones or -- any -- I think we can allow that, if we just go down

the list. We're going to need two individuals for each case, and up to four cases per individual.

DR. ANDERSON: I guess just from the logistics of the phone call, it would seem if -- if we can have the same two people share four cases --

DR. ZIEMER: That would be helpful --

DR. ANDERSON: -- rather than have --

DR. ZIEMER: -- it may not be always possible, but --

DR. ANDERSON: -- all 20 of them be different combinations of two.

MR. PRESLEY: (Off microphone) (Inaudible) just two cases.

MR. GRIFFON: (Off microphone) Up to -- up -- yeah.

DR. ANDERSON: (Off microphone) Two -- two people per case.

DR. ZIEMER: Two per case for four cases.

MS. MUNN: (Off microphone) Four cases.

DR. ANDERSON: (Off microphone) Yeah.

DR. ZIEMER: So for -- for example, let's take the first four cases on the list.

What -- do we have two individuals that have no conflict with any of those sites that want to do those four?

MR. PRESLEY: (Off microphone) I don't have any conflict (Inaudible).

DR. ZIEMER: I see we have quite a few. So shall we -- just want to take these in order, since -- I mean does anyone have a strong preference, you're just -- okay. So why don't we -- why don't we put Robert and Henry on the first four cases; is that agreeable?

MR. PRESLEY: (Off microphone) That's fine --

DR. ANDERSON: (Off microphone) Team A --

MR. PRESLEY: -- with me.

DR. ANDERSON: -- team A.

UNIDENTIFIED: (Off microphone) Way to go, Robert.

DR. ZIEMER: Well, I'm not sure --

UNIDENTIFIED: (Off microphone) You're out of the country.

MR. PRESLEY: (Off microphone) Yeah, but you're not going to get anything for the next two weeks.

DR. ZIEMER: Now we may have to shift this --if we end up the last team with some conflicts, we may have to -- okay, the next four cases would be Savannah River, Bethlehem Steel, Oak Ridge and again Savannah River. Tony and Mark, are you okay on those?

MR. GRIFFON: (Off microphone) Yes.

DR. ZIEMER: The next four would be Savannah River, Blockson, feed materials* and Rocky Flats.

DR. ROESSLER: No, you missed --

DR. ZIEMER: Did I --

DR. ROESSLER: -- you missed nine.

UNIDENTIFIED: (Off microphone) (Inaudible) Bethlehem.

DR. ROESSLER: Bethlehem.

DR. ZIEMER: Oh, another Bethlehem. I'm sorry -- Savannah River, Bethlehem -- or Blockson, Bethlehem and feed materials. Right?

MR. ELLIOTT: (Off microphone) Bethlehem Steel, Savannah River, Blockson and (Inaudible).

DR. ZIEMER: Right. Gen and Roy? Okay. Then we have Rocky Flats, Hanford, Savannah River and Rocky Flats again. Jim?

DR. MELIUS: (Off microphone) I'm okay, yeah.

DR. ZIEMER: Wanda?

MS. MUNN: (Off microphone) I can't do Hanford.

DR. ZIEMER: Oh, we got Hanford in there. Okay, I'll jump in.

MR. ESPINOSA: I could jump in on that one.

DR. ZIEMER: Okay, we'll put Jim and Rich. Then we have -- then we have Huntington, Savannah River, Y-12 and feed materials.

MS. MUNN: (Off microphone) Yeah, I can do that.

DR. ZIEMER: Now I've got a conflict with Y-12, so I'm going to --

MR. GRIFFON: We've got Leon and Mike, also.

DR. ZIEMER: I need to trade that.

UNIDENTIFIED: (Off microphone) Yeah, you've got Leon and Mike.

MR. GRIFFON: I don't think either one of those are conflicted for those four sites, are they? I don't know.

MR. PRESLEY: (Off microphone) Larry can

look and see.

MS. MUNN: I'm fine with those.

MR. GRIFFON: (Off microphone) Wanda's fine.

DR. ZIEMER: Do we have an odd number of people?

MR. PRESLEY: Yeah.

DR. ZIEMER: Okay. Oh, this worked out very well. The Chairman is (Inaudible).

MR. ELLIOTT: (Off microphone) You can pick which one (Inaudible).

UNIDENTIFIED: (Off microphone) Wanda --

MS. MUNN: (Off microphone) I've got Mike, do I?

MR. PRESLEY: (Off microphone) Wanda's --

DR. ZIEMER: Wanda --

MR. ELLIOTT: Neither Mike or Leon are conflicted on those last four.

MR. GRIFFON: Can we say Wanda, Mike and Leon, since we're going to have an extra person?

DR. ZIEMER: We've got two extras then. We've done ten. We have -- Wanda and me are left.

MR. ELLIOTT: (Off microphone) Or you

can give three cases to a couple of groups.

DR. ZIEMER: Yeah.

MR. ESPINOSA: (Off microphone) There you go.

DR. ZIEMER: Maybe that's the way to do it. Then we'll just lighten the load on a couple.

(Pause)

DR. ZIEMER: This is very arbitrary.

MR. ESPINOSA: (Off microphone) Could you do it by site?

DR. ZIEMER: How about if -- yeah, let's -- would this be all right? Presley and Anderson take the first three. Let's take -- let's take the two Savannah Rivers --

MR. GRIFFON: Who's that for, the two Savannah Rivers?

DR. ZIEMER: There are two in a row there.

MS. MUNN: (Off microphone) Yes, (Inaudible).

MR. ELLIOTT: (Off microphone) Two Savannah Rivers and Bethlehem Steel.

DR. ZIEMER: And -- you know, I'd skipped one anyway, hadn't I? Or no? Let's see

-- two Savannah Rivers and Bethlehem Steel, and we'll give that to Wanda --

MR. ELLIOTT: (Off microphone) You had Tony and Mark, so --

MR. GRIFFON: (Off microphone) Yeah, we're already -- are you reassigning now?

MR. ELLIOTT: (Off microphone) Reassigning now?

DR. ZIEMER: Wait a minute, who'd I have there?

MR. ELLIOTT: You had Tony and Mark for the next four.

DR. MELIUS: Henry, I'll trade you a Savannah River for a Hanford.

DR. ZIEMER: I want to take one from each of those teams and just move them down or something. What's a way to do this?

(Pause)

MR. GRIFFON: (Off microphone) You could have teams of three for these first cases, too.

DR. ZIEMER: That's what I'm -- that's what I'm looking at.

MR. GRIFFON: (Off microphone) (Inaudible) person on it instead of moving cases around.

DR. ZIEMER: Well, I was going to have three cases per team for -- instead of four cases per team; it just lightens the load -- rather than having more people on a case. So -- so what I've got here is Presley and Anderson take the first three cases -- here's an easy way to do it -- then Andrade and Griffon take the next three, which would be Savannah River, Savannah River, Bethlehem -- is that all right? We just move you up?

DR. ANDERSON: (Off microphone) Then take the next three --

DR. ZIEMER: And then --

DR. ANDERSON: -- make it your (Inaudible).

DR. ZIEMER: No, I can't be in the next three 'cause there's an Oak Ridge there again.

DR. ANDERSON: Oh.

MR. GRIFFON: (Off microphone) I was just looking at that.

(Pause)

DR. ZIEMER: So we'll just move Gen -- Gen and Roy up three. Are we still okay then?

MR. ELLIOTT: (Off microphone) Yep.

DR. ZIEMER: Oak Ridge, Savannah River,

Bethlehem?

DR. DEHART: (Off microphone) I can't do Oak Ridge.

MR. ELLIOTT: (Off microphone) Oh, that's right.

MR. GRIFFON: (Off microphone) You should have left Tony and I with Oak Ridge.

DR. ZIEMER: Okay, let's switch you. Let's -- let's put Roessler and DeHart for Rocky -- or Savannah River, Savannah River, Bethlehem. Is that better?

MR. GRIFFON: (Off microphone) Yeah.

DR. ROESSLER: (Off microphone) Okay, we just --

DR. ZIEMER: Second -- second team -- or second group will be Roessler and DeHart then.

MR. GRIFFON: (Off microphone) And then we -- then Tony and I have the next (Inaudible).

DR. ZIEMER: Then we have Tony and Mark the next three.

MR. GRIFFON: Which is -- just make sure I'm on the right line, Paul, that's Oak Ridge, Savannah River, Bethlehem?

DR. ZIEMER: Yes.

MR. GRIFFON: Okay.

DR. ZIEMER: Then -- then we can insert -- does that give us -- that gives us three open now. Does that give us Savannah River, Blockson and feed materials. Right? Which will now be Wanda and me. Are we okay?

MR. GRIFFON: Well, I was just -- I didn't know if -- just to make a suggestion, I don't know if it would make sense to have Mike and -- and Leon split with you and Wanda just to split the technical experti-- I don't --

DR. ZIEMER: Oh, sure, that's fine. Let's -- let's -- if we have no conflict, we can put Mike and me on -- that would be --

MR. GRIFFON: (Off microphone) Savannah, Blockson and feed materials.

MR. ELLIOTT: (Off microphone) That's no conflict.

DR. ZIEMER: That would be Savannah River, Blockson and Fernald. Right?

MR. GRIFFON: (Off microphone) Right.

DR. ZIEMER: And then Wanda will be with Mike (sic) on Savannah River, Y-12 and Fernald.

DR. ROESSLER: (Off microphone) You left out --

MR. GRIFFON: (Off microphone) Didn't we

leave out Huntington?

MR. ESPINOSA: (Off microphone) (Inaudible) Leon.

DR. ZIEMER: With Leon. Now let's go through these again.

MR. GRIFFON: (Off microphone) Yeah, read (Inaudible).

DR. ZIEMER: The first three are Presley and Anderson.

MR. ELLIOTT: And can we -- can we number these as we go, 'cause --

DR. ZIEMER: Yeah.

MR. ELLIOTT: -- I'm going to send these to you and I want to make sure I get the right ones to the right people.

DR. ZIEMER: One, two and three --

MR. ELLIOTT: One, two and three go to --

DR. ZIEMER: -- Presley and Anderson. Four, five and six go to --

MR. GRIFFON: (Off microphone) Roy and Gen.

MR. PRESLEY: (Off microphone) Roy and Gen.

DR. ZIEMER: Right, Roessler and DeHart.

Seven, eight, nine go to Andrade and Griffon.

MR. GRIFFON: Then we skip one, just so Larry knows. Right?

DR. ZIEMER: What? Then -- well, this now becomes ten.

MR. GRIFFON: Right.

MR. PRESLEY: (Off microphone) Savannah River --

DR. ZIEMER: Ten, 11 and 12 will be Gibson/Ziemer; 13, 14, 15, 16 --

MR. ELLIOTT: (Off microphone) (Inaudible) 14.

MR. PRESLEY: (Off microphone) (Inaudible) 14.

DR. ZIEMER: Huh?

MR. PRESLEY: (Off microphone) 13 and 14.

DR. MELIUS: Richard and I.

DR. ZIEMER: I have four of them for you.

DR. MELIUS: (Off microphone) Yeah, we have --

DR. ZIEMER: I have 13, 14, 15, 16, Melius and Espinosa.

DR. MELIUS: (Off microphone)

(Inaudible) 18 was up, too, you know.

DR. ZIEMER: And then Leon and Munn will be 17, 18, 19, 20. Okay.

MR. ELLIOTT: Just so I make sure, can I read --

DR. ZIEMER: Yep.

MR. ELLIOTT: Okay, if you number these and you drop out the bottom five Bethlehem Steels so they're not numbered -- right? -- we're going to give number one, two and three to Bob and Henry; four, five and six to Gen and Roy; seven, eight and nine to Tony and Mark; ten, 11, 12 to Paul and Mike; 13, 14, 15 and 16 to Jim and Rich; 17, 18, 19 and 20 to Leon and Wanda.

DR. ZIEMER: Uh-huh.

MR. ELLIOTT: Okay. You will see those disks coming at you next week, so we need to know if you're not going to be -- where you want them sent. If you're not going to be at your residence, I need to know an alternate location to...

(Pause)

MR. GRIFFON: They won't be there before Monday, will they?

MR. ELLIOTT: No, they won't be there

before Monday.

MR. GRIFFON: They won't be there on Monday -- or no? Okay.

MR. ELLIOTT: They will probably be sent out Tuesday, I imagine.

DR. ZIEMER: Okay, thank you very much.

MR. ELLIOTT: Tuesday or later -- Wednesday.

DR. ZIEMER: Henry?

DR. ANDERSON: And as soon as we can get a date for when the contractor work group's going to be, it'd be helpful to know. I mean we're going to be tied in to a narrow window of calling --

DR. ZIEMER: John -- John, you'll let me know and I'll transmit that then.

DR. ANDERSON: 'Cause we could maybe shift -- if it's going to be three days, we could maybe shift to meet people's schedules.

DR. ZIEMER: Right.

MR. ELLIOTT: We need to send -- Bob, yours doesn't need to arrive until...

MR. PRESLEY: (Off microphone) (Inaudible) the 13th of September.

DR. ZIEMER: Now keep in mind, although

we've grouped these by four, keep in mind that the contractor could conceivably have four different people for your four cases. You're not necessarily working with a single contact.

UNIDENTIFIED: (Off microphone) Really?

DR. ZIEMER: Sure, because they're going to assign them based on expertise. We have assigned them, in a sense, arbitrarily. But no matter how you cut it, that's -- you're not -- you're not necessarily going to be with one person.

DR. MELIUS: And I think we also have to recognize that it just may not be logistically possible for -- I mean (Inaudible) my schedule, some other people's, just try to pick out a date and times, it's going to be very, very hard.

DR. ZIEMER: And incidentally, the participation in the conference call would not necessarily be mandatory. If you're going to be on travel but had comments, you'd simply transmit them -- you're going to get feedback in any event from the contractor. Okay?

We need to take a lunch break and then aft-- first thing after lunch, at 1:30, is a public comment period. Let me -- I think we have

had some sign-ups, have we not, for public comment? We have at least one comment. And then we will proceed -- we have some other working items to take care of, including the minutes and the other documents from the contractor. So let's adjourn till 1:30 -- or recess till 1:30. We're not adjourning. You can leave your stuff here.

(Whereupon, a luncheon recess was taken.)

DR. ZIEMER: Just for the record, Henry Anderson, Mike Gibson and Roy DeHart have had to leave, so are not here for this afternoon session. We still have a quorum, however, and we will proceed.

PUBLIC COMMENT

This will be our public comment period. We have two individuals that have requested time. We'll begin with Richard Miller. Richard, the floor is yours.

Is there a mike -- hang on, it's coming.

(Pause)

MR. MILLER: Good afternoon. My name is Richard Miller -- is that too loud?

DR. ZIEMER: That's good.

MR. MILLER: I'm with the Government Accountability Project. I apologize for not being at the last meeting, but I'm glad to be back.

I wanted to touch on several items today. The first is Blockson Chemical. We understand that earlier this week the Federal Register notice was published which changes yet again the definition of what is Blockson Chemical. We've discussed previously -- the policy issue here is whether you count the radon dose at the Blockson Chemical facility from the grinding of rock phosphate, and a year ago in July the Department of Energy published a notice which narrowed the Blockson Chemical facility to only building 55, which was where they precipitated out the uranium from the phosphoric acid. But the question was whether earlier steps in the chain had radiological consequences or potential consequences and whether that dose should be counted or not.

And then I, you know, just meandered onto the NIOSH web site and lo and behold we see that there is yet another site profile published at the end of June for Blockson Chemical. And I

couldn't tell whether it was my computer or whether it was the document, but page nine seemed to be blank. And I don't know if that's true or not, but if -- is -- has the question of whether radon is going to be counted been resolved in terms of the adjudication, particularly of the lung cancer cases, or is that still an unresolved issue?

DR. ZIEMER: Do you or Jim want to answer that?

MR. ELLIOTT: We haven't seen -- I'll look at the site profile. I'm concerned about page 19 being blank, so --

MR. MILLER: Nine.

MR. ELLIOTT: -- I'll check -- I'll check that out -- page nine?

MR. MILLER: Page nine, yeah. Which was the one which referred to radon dose, so I just --

MR. ELLIOTT: That may be the reason why it's blank then --

MR. MILLER: That's why --

MR. ELLIOTT: -- because we had reserved --

MR. MILLER: -- I'm asking.

MR. ELLIOTT: We had reserved that until we've fully considered the situation. I have not seen the Federal Register notice, nor were we notified by DOE that it was being changed. It was a surprise to us as it was to you. We still are considering how to go about reconstructing lung cancer doses and what we will do with regard to radon. We haven't arrived at a decision point on that.

MR. MILLER: So the revised site profile that's up doesn't -- doesn't close out that issue is what --

MR. ELLIOTT: No, it does not.

MR. MILLER: Okay, that's -- that's what I really wanted to get clarified on. Is -- is it -- is it sensible -- is this a sensible question for the Advisory Board to be taking up, I mean what dose do you count or not count? I mean doesn't that fall kind of within what this Board ought to be deliberating on, or is -- it just sort of strikes me -- I mean this has been hanging out there since October of 2003 when the first site profile was published. Now we're sort of winding the clock, it's -- you know, we're -- you know, we're pushing to the fall of 2004. A

full year has passed. The issue's not resolved or closed, and you all haven't really had a chance to deliberate on this. And you know -- I mean Larry's obviously wearing the hat of the dose reconstructor. You're wearing the hat of the -- you know, the site profile manager, but you're also the one setting the agenda here. Is there a way to get this on the agenda once and for all and get it aired out and get at least some recommendations, whether the government accepts them or not?

DR. ZIEMER: I think the answer is yes, there is.

MR. ELLIOTT: Yes, there is. But the Department has not determined that it's an agenda item for the Board to take up at this point in time, so we'll have to come to our closure on it and provide it to the Board for its deliberation when the -- when it is appropriate.

MR. MILLER: Okay. Well, there's a draft site profile out there, so I figured it was appropriate once one's been published.

The second issue I wanted to touch on was the Special Exposure Cohort. You've got, as noted, several petitions filed. I wanted to

comment particularly on the Mallinckrodt one because I understand it'll be one of the first ones you all get, and I heard mention -- at least yesterday and it may-- probably wasn't a complete answer from -- from NIOSH staff, but they said well, we're looking at that sort of '42 to '46 time period on -- on getting some kind of report, I guess was -- was -- was -- I don't want to characterize the words because they are what they are. Our sense of this -- looking at the Mallinckrodt site profile, at least -- is there's more to the Mallinckrodt site and whether dose is reconstructible than merely whether there was internal or external bioassay data undertaken between '42 and roughly '48. I believe they started doing some external dosimetry in around '46, and started doing more internals starting around '48. But there are -- the whole raffinate process where they took basically the -- the -- the -- where they made filter cake, where they extracted the liquid raffinate, which was loaded with all of the actinium-bearing -- particularly actinium-bearing waste and other materials that were ultimately shipped to Mound -- right? None of that's been assessed in the site profile.

There's no actinium dose estimates. It's not even mentioned. I did a keyword search just to make sure it might have been mentioned, yet we know there's a lot of it. We know it's oozing out of the airport site where they dumped the raffinates in St. Louis. If that dose isn't estimable, why is that not also part of the consideration of what dose can or can't be reconstructed? I mean why is that outside the scope of -- of your research -- or is it? Am -- am -- am -- am I prejudging and -- I -- you know, where y'all are headed with this? I mean that's -- I guess it's half a comment, half a question.

MR. ELLIOTT: Well, Richard, this is a public comment period so your comments are noted and I'm not going to respond to questions of this -- this sort and type. It's premature. So --

MR. MILLER: Right.

MR. ELLIOTT: -- please -- please constrain your comments to comments, if you would.

MR. MILLER: Well, I may --

DR. ZIEMER: Well, the information is noted in the --

MR. MILLER: I mean I think -- I think

this is not the first time that issue's been raised, but I -- I -- I am reacting to what we heard earlier in terms of the assessment of that petition and --

DR. ZIEMER: We hear what you're saying.

MR. MILLER: -- and -- and I would encourage that inquiry.

The second issue has to do with how this Board assesses the Special Exposure Cohort petition. And -- and although it -- it -- the -- what le-- was left, at least from my perception, of unresolved in the SEC rulemaking and in the procedures which were posted, I guess, after your last Board meeting and -- and which have had a chance to read -- left me with this puzzle. If your SEC -- if you're going to determine that it's not feasible to estimate dose because you can come up with a maximum plausible worst-case dose estimate, but that is not the estimate which is going to be used for compensating cases where P of C exceeds 50 percent -- so in a non-efficiency framework -- what happens? Who falls through the cracks and how do you -- what's -- what's -- yeah, what -- what is the logic of -- what is the logic of your decision point? What

is the logic of the decision point? And I think you all need to rethink, re-examine -- as you get your first petitions in and think about your analysis, are we having people for whom there -- they're in the class, you determine that you could come up with a worst-case dose estimate for them, but it turns out it's over 50 percent, so we're not going to apply the worst-case dose estimate to those people; we're going to try to come up with a better estimate. But you can't come up with a better estimate, but nevertheless there you are. They're not also eligible for the Special Exposure Cohort petition. And I -- I -- I just think this is a question y'all have to -- to wrap your minds around again. I -- I know you've heard me raise this more than once.

DR. NETON: (Off microphone) (Inaudible)

DR. ZIEMER: Response from Jim Neton.

DR. NETON: I know we're not supposed to respond to comments, but when they're -- when there's some factual issues, I think it's best to correct them --

MR. MILLER: Go right ahead.

DR. NETON: -- at this point. I think you're mistaken, Richard, that if -- if a -- if

the worst-case estimate would put somebody over 50 percent, we would use that as the dose reconstruction if that is the only value we had to reconstruct the dose. I don't know where you got the idea we wouldn't.

MR. MILLER: 42 CFR 82.10(k) says you will use a worst-case dose estimate up to the point that it -- you will apply that, provided that the P of C -- it's -- it's for your efficiency process.

DR. NETON: No, the efficiency process, though -- the worst-case estimate can be used if that is the only estimate that you have available. You cannot use a worst-case estimate if there is a refinement that can be done. In other words, you can't -- you can't start the efficiency process and say my worst-case estimate is it's -- it could come to 40 rem and that's compensable. You can't stop there, because if there's additional information, one could refine the estimate. You can't award a compensation case based on an incomplete research profile.

MR. MILLER: Oh, absolutely.

DR. NETON: So what I'm saying is, if -- but if you go and it's a worst-case estimate and

there is no refinement available, that's all you know, then that's what you would use. You have to. There is no other information available. So I don't...

MR. MILLER: Well, then -- then -- then the question I guess will be when you set your thresholds for what constitutes capping the dose, the test will then be are there cases where you have capped the dose -- right? -- which you are not going -- which would fall on that side of a -- we can reconstruct the dose and we've capped it and so therefore we know that this population, this subset of the cohort, for example, has -- has -- has -- then going to be compensated accordingly.

DR. NETON: It does not necessarily mean be-- and we went through this at the last Board meeting, and you weren't here so I guess that's why there's a little bit of confusion. But it is possible to say that we can cap a dose and -- and determine that a cohort should not proceed forward in the SEC process. That does not mean that NIOSH would not do further research to refine the dose as necessary in accordance with the regulation.

MR. MILLER: Well, we'll -- we'll -- we'll quickly see how that plays out in practice.

MR. GRIFFON: (Inaudible) where we went last time in Buffalo and we did have this discussion, and it was probably mainly me, but where we went with that was that, you know, capping that dose to exclude someone from an SEC -- you know, my argument was well, you could say they got, you know, 4,000 -- you know, maximum estimate could be 4,000 rem, but you're not locked into having to use that --

DR. NETON: I think there's some --

MR. GRIFFON: -- so --

DR. NETON: -- some language in the regulation that says there has to be some sort of a reasonable upper cap. One cannot say a million rem. So it's in there.

DR. ZIEMER: Okay. Proceed, Richard.

MR. MILLER: Sure.

DR. ZIEMER: Do you have additional comments?

MR. MILLER: Yes. The -- the -- the -- the second thing I'd just like to shift gears to is the -- I guess just a sort of a personal response, which it was hard not to sit in the

audience, and I don't know what it felt like to be around the table, but it was hard not to sit in the audience yesterday and feel a certain twinge of anxiety as the presentation by the audit contractor played out before the Board. And -- and I guess -- the good news was, it appears as though the records access issue seems to now be resolved, that -- that -- that that problem is now behind us and I -- and I hope that's the case.

The second question that didn't seem quite as clearly resolved, although there were a number of constructive suggestions from Tony and from Bob Presley and others about the Q clearance issue, is that if the Q clearance issue does turn in -- become an obstacle to actually completing these, what can we do? Is there somebody who could become a champion to make sure that the needed and necessary Q clearances are obtained? I mean is -- is there -- is -- is there somebody who can sort of take ownership of this, either in the ag-- whatever the relevant agencies or the Chairman of the Board -- I don't know who the right person is to be the champion to make sure it happens. Because if a year from now we come

back and we're still waiting with Q clearances in the pipeline, I think there's going to be some frustration again.

DR. ZIEMER: No. Your comment is noted and we are asking the same question.

MR. MILLER: Oh, okay.

DR. ZIEMER: Who will our champion be to get that done, but thank you for --

MR. MILLER: Yeah, okay.

DR. ZIEMER: -- underlining that.

MR. MILLER: Yeah. And -- and now -- and then -- and -- and hopefully here, again, the issue about DOE access -- I was -- I was comforted to hear Tom Rollow once again reassure that the letter had been transmitted down through the field and tha-- and tha-- and that there's hope for -- for cooperation from -- from the DOE.

Having said all of that, I -- I hope that this is now -- that this process is now going to steer more smoothly and -- and that there are not structural problems that are underpinning the multi-faceted role that NIOSH is having to play, which is -- is a tightrope, a delicate rope to walk, but it is hard not to put it on the record and say it's noticed and that

there's -- there's some difficulty there. And I don't know what all the background conversations are. I don't know what all the facts are. I do know that when it plays out publicly here, there's more to it than what meets the eye. I don't know what's necessary to bring greater transparency to it. Maybe there isn't any -- anything more to be dealt with. But I hope that there's not a structural problem here in NIOSH accommodating the contractor's needs, whether it be in contract management, records access or whatever new is going to come up on the horizon. And if there is a structural problem, if there's a governance issue here, then I -- I just think the Board should, as I'm sure it will, keep its ears closely attuned to this question.

Finally, I wanted to talk a little bit about what I think are the -- the -- probably the most interesting aspect of the audit process that's moved forward so far, and I've gotten phone calls and communications from people who have met with the audit contract team at -- at the two locations that -- I think -- I don't know how many they've been to, but at least the two I've heard from -- which is that people felt

really good about being able to communicate. There was a high sense of comfort level that they were being listened to, whether -- how -- how it's going to be accounted for remains to be seen in whatever reports you get, but that these site interviews give people a chance, collectively, to -- and particularly for those with expertise -- to provide additional information and data that may not be fitting into the process as it is.

And secondly, I think it'll be a useful reality check against what NIOSH has encountered in the paper records and their own interviews, in their claimant interviews. And I would certainly hope that -- that the site interview process continue forward because I -- it looks to me like this is going to be a value-added component as you went forward.

And then lastly we heard from a gentleman last night who worked at the special manufacturing facility, the SMC, the depleted uranium tank armor facility out here at INEEL. Does anybody know, was the SMC facility included in the site profile? Anybody know? Yes? No?

DR. ZIEMER: A couple of people here might -- yes is the answer.

UNIDENTIFIED: (Off microphone) It is included.

MR. MILLER: It is -- SMC is going to be included in the -- in the site profile? Okay.

UNIDENTIFIED: (Off microphone) It's there now.

DR. NETON: (Off microphone) It's there now.

MR. MILLER: It's there now. Okay. We looked on the web site last night for the internal dose section and that -- that, I guess, hasn't quite made it up on the web.

DR. NETON: (Off microphone) It lags behind a day or so.

MR. MILLER: Yeah, okay. Thank you.

DR. ZIEMER: Thank you, Richard. Now we'll hear from David Fry with PACE. David did address us last night and he has some additional remarks today.

(Pause)

MR. FRY: Okay, I just wanted to make a couple of comments. Last night I asked about if they would redo the site profile meeting here because, you know, we were -- we didn't have all the information before, like we didn't have the

internal dose document. And last night we heard that it was on the web. I'm not picking on anybody, but as soon as we left I went and looked on the internet and it's not on the web yet. It says still under development, so I think we kind of need that document, you know, before we can do another site profile.

And also on the occupational environmental dose and the external dosimetry, we noticed they hadn't been updated since the April 28th meeting, so a couple of concerns we had.

And then on the minutes that we got back from ORAU on the first meeting that we had, and I think Richard Miller just addressed one of them on the SMC project, if it was covered or not. There was one comment that there's a good description of the procedures but little about actual exposure, and we didn't really get a clear answer on that. Another comment was -- it says only ten percent of doses are reported. How can NIOSH or ORAU make conclusions when the amounts reported are inaccurate. That was the concern that was brought up, and Bill Murray's written response was the calculations are best -- based on DOE records. It's the only way we can do it.

There's no way to verify if the data are good or bad, so it's kind of a concern there if we can't -- can't verify the data, you know, how do we know what we have, really. So just -- just a couple of things I wanted to bring up.

DR. ZIEMER: Thank you very much. As far as I know, that's all of the individual comments that have been requested.

UNIDENTIFIED: (Off microphone) (Inaudible)

DR. ZIEMER: Yes, please approach the mike.

(Pause)

UNIDENTIFIED: (Off microphone) Is this okay? Okay, one thing I understand --

DR. ZIEMER: You'll need to identify yourself for the record.

MS. CODDING: Oh, okay, my name is Shirley Codding. I made a comment last night, and then this morning I heard that you guys are going to be touring the site tomorrow. And my one big concern is you're going to go out to the site and you're going to see a site that is not what we knew in the six-- well, even fifties, sixties, seventies and eighties. You're going to

see a much cleaner place.

They're not going to take you in the areas that we are all concerned about where we have picked up all the problems. You're going to go out and see a site and walk away from there saying what in the world are they complaining about, because I guarantee you, if you looked -- before -- in the PODs, the orders -- the daily orders, before every tour is a massive -- for days before that -- clean up, clean up, clean up, make it look good. And personally, I think that's how we got our star status. Before those tours, we're out there -- that's our primary job, clean-up.

And so you're not going to -- you're not going to go in the areas -- number one, like the old calciner. When we worked an overtime, if you were held from a graveyard to a day shift, you prayed you got that as a job because you could go down there, put your feet up and relax 'cause no manager in his right mind was going to come in there. I don't think a manager had been in the old calciner since the seventies. You're not going to see it because we deconned the best we could, tore the building down on itself and

capped it with concrete that's five feet tall off of the ground. You're not going to see that.

You're not going to see the deep tanks at all where some of the fuel processing operators went down and were horrendously exposed. You're never going to see it because nobody goes even near there now.

The solvent tank is long gone. You're not going to see that, not only the radiation, but the chemicals that we were exposed to back then that they don't allow on the site anymore. There's a -- half of the chemicals I worked with in the eighties I'm not allowed to even touch now.

You're going to see a much safer site. We don't even go above six foot on a ladder without a safe work permit, but in the old calciner, I was crawling up pipes to get in the overhead pipes to manipulate a valve because we had a leak, and I went up there with nothing but a pair of NICs* on, gloves and shoe covers. You're not going to see any of that.

You are not seeing the real site tomorrow. And I really want you to be aware of that when you go out there, that what you're

seeing is what they want the public to know about. It's not what was going on, and particularly in the sixties and seventies and the eighties.

We stopped using the injection well I believe in 1986. As an operator, when we'd be ready to send out our evaporator, overhead condensates, we'd go over and turn up the detectors one because we knew it was going to set off an alarm. Well, you want to get rid of the stuff. The company told us to go ahead and do that. We turned up the detectors. We weren't supposed to turn it up to ten to the fourth, but I know of two times for sure that it was done just because we had to get rid of the stuff. It went into the injection well. That went down to the aquifer. You've got your Snake River alliance*, your Jackson Hole people that finally put a stop to that 'cause they were screaming we're -- we're not doing things right at the site. That is what you're going to see now is the changed, not what was, not the way we worked.

Also, I'm sure you've gone around town and you've noticed we have no industry in this town. This town has put all of its eggs in one

basket and that's the site. So if you wanted a good paying job and you did not have a degree, you weren't a doctor, you weren't an attorney, you weren't a big farmer, you went out to the site. And because everybody wanted to go out to the site for the good-paying job, there were 50 to 100 people waiting for your job if you didn't do your job. The company told you to jump, you asked how high, because if you didn't, there was -- there was 50 operator -- 50 people lined up for my one operator job. I did what they told me. They wanted me to go in in my birthday suit in the cell, I would have -- and thank God that didn't happen 'cause it made everybody happy.

Seriously, that's how it was. We would have done anything that they asked. HPs, VoTech gave a class at -- for -- to certify us in HP. They were pumping out HPs like you can't believe. Yeah, you better believe the HPs did what they were told, because there were 200 waiting to take their job. We didn't ask questions; we did. And we did it to the best we could, and plus -

You know, when you're young, you're invincible. I can do anything. I'll survive it. And now a lot of people I worked with are dead.

They really are. They're gone. Or they're in such horrendously bad condition -- I'm one of the lucky ones. I've survived eight surgeries on my head. I am a lucky person. Do you know, I've lost two sup-- no, three supervisors now. HPs that I've worked with hand-in-hand have died of cancer. We sent things into the stack that now we -- we monitor so close you can't believe. We sent things in the injection well that went to the aquifer. We -- we prayed for a job in the old calciner 'cause the manager wouldn't come in and catch you resting 'cause, you know, from -- overtime from the graveyard shift to day shift was really hard. You wanted that. But nobody -- we had a coffeepot down there, for crying out loud, to help keep you awake. But a manager wouldn't go downstairs. If he needed to talk to you, you went up and talked to him. Nobody went down there.

You guys aren't going to see anything like that. You're going to see a nice clean, wonderful place to work. That's not what we worked in. That is the new and improved site, and it is done only because of public outcry on it. It is done because we were dumping stuff

into the ground. We were --

Do you know -- just a few months ago we even put a sealant on the tank farm. Now you're going to look at it and say, you know, nothing's going down into the ground there. Twenty-three years I worked, there were valves that leaked among* the tank farm. They dug up some dirt in the tank farm that were hotter than heck.

Three to four years ago I went to Petco and bought rabbit food because us gals in the operation befriended some rabbits, and so in the wintertime we -- I bought rabbit food. I took it out there. We had two rabbits that let us girls get pretty close to them, and -- but the guys, when they'd walk by and say something, the rabbits took off 'cause the guys kept saying fatten them up so we could eat dinner. And -- but we finally last summer got an e-mail that said no more feeding the rabbits; we're finding hot rabbit turds.

And I was out once and Craig Bishop, an HP, was picking up goofy things off of the tank farm and out in front of 604 where I worked, picking -- and I was what are you doing? He said collecting rabbit turds, survey. And he said

some of these are screaming hot, and he put the monitor there and it pegged out* like you wouldn't believe. We've got rabbits walking around all over there that are hotter than a son-of-a-gun, and yet we walk all over there.

The dirt on the tank farm -- they did take a couple shovelfuls that were so screaming hot -- so now we got a nice asphalt cover over it. You guys'll never see that. You're not seeing the real thing. You have no idea what we've been through, and it's not the same area. We don't even work like we used to.

And that's all I was just going to say. I just want you to be aware of what you're seeing tomorrow is not what is.

DR. ZIEMER: Thank you for those comments, and I think the Board is certainly aware of that. Thank God that it isn't the way it was -- and this is true at all the sites we visit. They're very different than they were. And of course, you know, when I -- when I have company at my house, my wife doesn't let them look in my closet, either, and it -- obviously we're not going to see everything. We do want the Board to have a feel for what the site --

what is the site, where did all this occur. So we -- but we understand what you're saying and we appreciate those comments.

Is there anyone else that wishes to make a comment? If not, we're going to proceed on the agenda.

REVIEW AND APPROVAL OF DRAFT MINUTES, MEETING 25

We have a number of additional items to take care of in our working session, beginning with the minutes of our last meeting. I'd like to call for any changes or additions to the minutes. Wanda?

MS. MUNN: I'd like a couple of clarifications, I think, on one or two sentences that must have -- it must have made sense to me at the time, I was there, but when -- reading them later, I wasn't sure. The very last sentence on page seven says the site profiles are not applicable to workers with no monitoring information at all. I'm not sure exactly what that means.

DR. ZIEMER: That's quoting Dr. Neton or summarizing Dr. Neton's comments. Jim, it -- the last sentence on page seven says the site profiles are not applicable to workers with no

monitoring information at all, and she's asking for a clarification I think on that sentence.

MS. MUNN: Yes.

DR. NETON: Yes, that -- that's what I said or a good summary of what I said. What I meant by that is that the site profiles were really -- the first pass at the site profiles were constructed to evaluate people with monitoring information -- TLDs, urine samples, that sort of thing. People that had no monitoring information at all, it would be very difficult to use the site profile to do a dose reconstruction because we wouldn't have incident reports or coworker data to evaluate that. So I think it might be a little strong. I might -- I might rephrase that to say are not necessarily applicable, because there may be some situations where we could do it. I can't think of any off the top of my head.

DR. ZIEMER: Well -- but the point is, this does fairly reflect what you said.

DR. NETON: Yes.

DR. ZIEMER: Okay?

DR. MELIUS: If you go to page 50, the bottom of the page is -- there's two sentences

from which that sentence is abstracted from, which I think capture Jim's --

DR. ZIEMER: This is in the executive summary versus the detailed -- yeah.

DR. MELIUS: Yeah, and --

DR. ZIEMER: So unless you object, can we leave the first one since he's indicated it is correct?

MS. MUNN: Yes. Yes, that's fine. That's fine.

DR. ZIEMER: Okay. Another one, Wanda?

MS. MUNN: I didn't have any problem with the one on 55. On page 16 --

DR. ZIEMER: Sixteen?

MS. MUNN: Uh-huh, the first paragraph of Ms. Mosier's Labor status report. I -- I made some reference to that earlier. I believe I understand exactly what that means, but I wonder whether everyone who reads this understands that.

DR. ZIEMER: This is the first sentence, starting with "Ms. Mosier"?

MS. MUNN: The first paragraph, presented statistics -- a breakdown of categories -- cancer remaining the major category at 70 percent. Then the next sentence says the next

largest is non-covered conditions, which is 49 percent. And I understand that there's an overlap there, but I wonder whether the ordinary reader would in fact wonder how you can have 70 percent and then have 49 percent not covered. Now I -- you know, I get it, but I'm not at all sure that it's clear.

DR. ZIEMER: Because you can have some with both.

MS. MUNN: Yes.

DR. ZIEMER: I guess the issue would be 70 percent of what.

MS. MUNN: Yeah, uh-huh.

DR. ZIEMER: And Ms. Mosier isn't here, but I think it was 70 percent of all -- I'm not sure.

MS. MUNN: No.

DR. ZIEMER: Seventy percent of all claims?

DR. MELIUS: Couldn't -- couldn't someone refer back to the presentation that they made at the last meeting. You still have the slides. Someone may have kept them. And just sort of treat it as a grammatical error and it can be clarified --

DR. ZIEMER: I don't -- I think the numbers are probably right.

MS. MUNN: I think they are, too.

DR. ZIEMER: You could have 49 percent other conditions, and some of those are overlaps where they have cancer and some -- I think is what the situation --

MS. MUNN: I think that's what it is, too, but it's not clear just reading it, prima facie.

DR. ZIEMER: I'm not sure what we'd do with it at this moment.

MS. MUNN: I'm not sure, either, but I felt it was confusing. The next --

DR. ZIEMER: Maybe -- maybe the way to treat it is to say which is 49 percent and which may include some of the -- and which could also include the can-- some of the cancer cases, or something to that effect.

DR. MELIUS: Or if we want to fix it here, we can just take out the numbers, just --

DR. ZIEMER: Cancer the major category and the next largest is non-covered conditions.

DR. MELIUS: That way we don't...

DR. ZIEMER: That certainly removes the

ambiguity. Anyone object? And the transcript will have the exact -- without objection, we'll just remove the percentages there so that it -- so we would remove the words "at 70 percent" and remove the words "which is 49 percent". Thank you.

MS. MUNN: In the paragraph above that I think we need to add one word to the second sentence of the last paragraph in that section. It starts "So long as the Board decided correspondence should be generated", I think the word "and" needs to go in there, doesn't it?

DR. ZIEMER: Yes, "and determines the purpose and focus".

MS. MUNN: Yes.

DR. ZIEMER: The word "and" will be inserted there, take it by consent that's a grammatical.

MS. MUNN: Then my only other comment is the bottom of page 39 where, without any prelude, we sort of -- it looks as though Ms. Munn promptly -- suddenly decided she wanted to announce that she'd never heard anyone making jokes, and I guess I would like to suggest a change to that --

DR. ZIEMER: Yes.

MS. MUNN: -- without changing the meaning. I would suggest "Ms. Munn commented she felt it was necessary to dispute an earlier inference that some individuals might not approach these claimant issues seriously. She stated that no person had ever made jokes about these matters within her hearing." I would ask that that be substituted for the first sentence.

DR. ZIEMER: Is there any objection, and you can provide that wording to the --

MS. MUNN: I will.

DR. ZIEMER: -- to the staff and to the editor.

MS. MUNN: Thank you.

DR. ZIEMER: Without objection, we'll clarify that. Thank you.

Larry, you had one?

MR. ELLIOTT: Yes, on page five, under Oak Ridge Associated Universities Team Dose Reconstruction Project for NIOSH Claimant Contact. The last sentence in the first paragraph that reads "They now handle almost all mailings to claimants" should correctly read "They now handle almost all CATI mailings to

claimants."

DR. ZIEMER: That's a acronym, C-A--

MS. MUNN: T.

DR. ZIEMER: -- D-E?

MR. ELLIOTT: C-A-T-I.

DR. ZIEMER: C-A-T-I.

MR. ELLIOTT: Computer -- that's an acronym for computer-assisted telephone interviews.

DR. ZIEMER: They now handle all -- almost all CATI mailings to the claimants. Without objection --

MR. ELLIOTT: The reason -- the reason why it makes it correct is that ORAU does not handle all mailings to the claimants, but they -- I guess they handle almost all, if not all, mailings on the CATI.

DR. ZIEMER: Without objection, we'll make that change.

Any others?

(No responses)

DR. ZIEMER: Motion to approve the minutes with these changes?

MR. PRESLEY: (Off microphone) So moved.

DR. ZIEMER: Second?

UNIDENTIFIED: (Off microphone) Second.

DR. ZIEMER: All in favor, aye?

(Affirmative responses)

DR. ZIEMER: Any opposed?

(No responses)

DR. ZIEMER: Motion carries.

BOARD DISCUSSION AND WORKING SESSION

We had two documents from the contractor. One was the organizational conflict of interest plan, the other was the quality assurance project plan. The contractor representative indicated yesterday that they themselves had some editorial changes. He has given me the mark-up, and although the changes on the surface appear to be minor, there are so many of them and they are throughout the document, I'm suggesting that we defer approval of the documents, with the understanding that they are operating under these general principles. And most of the changes are indeed editorial. They have some -- just some wording issues. And ask -- I'd like to see if there's any changes the Board wishes to suggest on these documents. We would refer them back to the contractor to add our changes to theirs and come back with a clean

copy next time. Is there any objection to doing that?

(No responses)

DR. ZIEMER: There appears to be none. Let me ask for changes -- let's start with the organizational conflict of interest plan, which -- the first change is going to be they're changing the title of it to just conflict of interest plan, but do you have any changes to recommend on this? Larry.

MR. ELLIOTT: They have titled both of these documents the National Institute of et cetera, et cetera. We would ask that they strike the National Institute of -- it is actually National Institute for, but I don't think it appropriate that NIOSH name appear on this document. You are the Advisory Board. It is your -- it is your contractor, it's your document.

DR. ZIEMER: Without objection, we'll ask them to strike that. Thank you. Any others, Larry, that you --

MR. ELLIOTT: None that I have to offer.

DR. ZIEMER: Okay. Other -- any other changes, questions Board members have? Wanda?

MS. MUNN: On CIO?

DR. ZIEMER: Well, let's see, let's start -- we're still on conflict of interest. If not, I will ask them to come back with a clean copy -- and again, most of the changes that they are recommending have to do with the use of the title "Organizational Conflict of Interest" but then they have some other rewording changes that do not change substantively what they are doing, but nonetheless, they are wording changes and I think we would be more comfortable having clean copy to work with.

So without objection, we'll defer action until the next meeting.

Now, let's go on to the quality assurance project plan. Again, we'll strike National Institute of Occupational Safety and Health from the title. Wanda, I think you had an item on this one.

MS. MUNN: Yeah, I have one or two, and I don't mean them as a criticism. I guess I'm trying to look at them as documents covering procedures and activities that someone else may have to audit at some time. And I -- when reading the duties of the quality assurance

manager, I'm assuming that there will be procedures established which this individual will approve and which will be the implementation of the policy which this document purports to be.

I'm a little concerned about the statement of regularly assessing documents and the adequacy without any information about --

DR. ZIEMER: What page are you on?

MS. MUNN: I'm on page six of 15.

DR. ZIEMER: Under quality assurance --

MS. MUNN: Quality assurance manager --

DR. ZIEMER: -- manager?

MS. MUNN: -- yes. (Reading) regularly assesses and documents the adequacy of quality systems by reviewing procedures and auditing work products.

I am assuming there will -- I would like to assume that there will be a procedure which will establish the frequency and the type of documentation that would occur there. But of course in an overall policy document like this, it's impossible to spell that out.

DR. ZIEMER: So are you suggesting --

MS. MUNN: I guess --

DR. ZIEMER: -- a change in the wording?

MS. MUNN: I'm requesting just a little more specificity in that wording, and I think it would be better for the contractor themselves to identify what that specificity should be. But bearing in mind the audit function that will follow -- may follow on their activities, I'd like for an auditor to be able to see what the quality assurance manager had done with regard to that item.

DR. ZIEMER: Are you suggesting that we specify or ask them to specify the frequency, where it says "regularly"?

MS. MUNN: Yes.

DR. ZIEMER: Does "regularly" mean once a year or --

MS. MUNN: At least --

DR. ZIEMER: -- once a week or --

MS. MUNN: At least, you know, and --

DR. ZIEMER: And to specify how they are --

MS. MUNN: What reporting system would be used, yeah.

DR. ZIEMER: Is there any objection to asking for this change, or --

DR. MELIUS: Yeah, I -- I mean I would

read this as sort of a job description, what that person -- you know, what they would do. And there really should be some reference to those specifics in -- under plans and procedures, section six. And I agree they don't cover -- at least I don't see it covered -- covered there, I just -- and I think that would be the place to -- at least they -- you know, the quality assurance plan should include, you know, whatever schedules or whatever -- or it could -- it may well -- as well go up above, but -- one place -- it could go in either place, and that's what they -- so they should be able to modify it in either.

MS. MUNN: Under plans and procedures there is, again, the specific procedure of having each individual read the quality plan and the documentation then is a sign-off by the individual that they have read that procedure. It seems to me, when I was asking for something in addition on the preceding page, I was asking for a little more specificity as to what the manager's responsibility was --

DR. ZIEMER: Let me --

MS. MUNN: -- (Inaudible).

DR. ZIEMER: -- suggest this. I'm just

marking this up 'cause this copy's going to go back to them. Suppose we suggest that on item three under quality assurance manager that they specify frequency and documentation, either here or in section six.

MS. MUNN: Uh-huh.

DR. ZIEMER: Would that be suitable?

DR. MELIUS: Yeah.

MS. MUNN: Yes, it would.

DR. ZIEMER: Any objection to doing that?

MS. MUNN: No.

DR. ZIEMER: Okay, I take it by consent that we'll ask for that change. Okay.

Wanda, do you have any others?

MS. MUNN: No, the other was something I'm sure will happen in -- in procedures under item nine, QAPP training, page 12 of 15. It says the QA manager supervises training of each individual working on the contract. I assume that documentation will fall as a part of that supervision and documentation.

DR. ZIEMER: Well, documentation as referred to in the previous section.

MS. MUNN: The previous section, yes.

Uh-huh.

DR. ZIEMER: Do you think something additional needs to be added?

MS. MUNN: No, other than the fact that document control does not mention training documents specifically, one place or the other.

DR. ZIEMER: So you're suggesting that perhaps they add something that -- documentation of training?

MS. MUNN: Just a tracker, yeah.

DR. ZIEMER: Any objection to asking for that clarification?

Okay, Tony?

DR. ANDRADE: I wanted to actually get even -- even a clearer definition of the quality assurance manager's role and responsibilities, so back to page --

DR. ZIEMER: Sure.

DR. ANDRADE: -- of 15. It's a little murky on item one. It says that the quality assurance manager establishes and implements quality policy. Okay? Clearly anybody who's done quality assurance before knows that the QAPP is only the umbrella document to implementing procedures. So is this person going to be

responsible for writing or to have written implementing procedures for the QAPP? I think that should be absolutely crystal clear at this point, because then on the next page these procedures are referred to, but nobody knows who's got responsibility for writing them or being responsible for having them written.

DR. ZIEMER: So you want clarification of who...

DR. ANDRADE: Right, clarification of whether it is the quality assurance manager that is responsible -- has overall responsibility for the development of quality implementing procedures.

DR. ZIEMER: Okay. Any objection to asking for clarification on that?

DR. MELIUS: They would just expand duty number one with more specificity?

DR. ANDRADE: Yes.

DR. MELIUS: Okay.

DR. ZIEMER: So clarification of whether the QA manager is responsible for -- what was the word you used then -- for developing?

DR. ANDRADE: The development of quality implementing procedures.

DR. ZIEMER: Development of quality --

DR. ANDRADE: Implementing --

DR. ZIEMER: -- implementing procedures. Thank you.

Okay, any others? Yes.

MR. ELLIOTT: In both documents -- let's take the QAPP first. On page four of 15 under scope, also in the conflict of interest plan on page six under 5.3, second paragraph, there is mention here of SEC reviews. Your contractor -- it's not in the scope. And in the procedures and the rule that we have, the research evaluation reports come to the Board. The Board is charged with evaluating the content of that and sending us back to do more work and more development. So there's no role for your contractor with regard to SEC. I thought we had -- we tried to address this when we developed the tasks, and it was struck out of the tasks, but I see it's coming back, so...

DR. ZIEMER: Yeah, and I think -- we may have had this discussion before, but I think early in the process when we were going out to find a contractor, there had been mention of a possible role in SEC evaluations, but that

certainly is not currently a task, so --

MR. GRIFFON: But it is -- just for clarification for me, it still is part of the overall original contract that -- that was bid on. It just hasn't been issued as a task.

MR. ELLIOTT: You want to speak to this, Jim?

MR. GRIFFON: It's in the contract -- I mean it's in the -- you know.

DR. NETON: I don't think so.

MR. GRIFFON: Yeah, it's on -- I'll give you the page.

MR. ELLIOTT: I don't think it's in the contract. It was in the -- the --

DR. NETON: I think their bid --

MR. ELLIOTT: -- RFP, request for proposals. At that time, when the Board put out its RFP, we didn't have any -- no one had a clear insight as to whether or not there would be a role. But as the proc-- as the rule was developed, the rulemaking ensued and the procedures were developed, the Department does not view that there's any role for the Board contractor on SEC. The time line of processing petitions and evaluation reports calls for the

Board to take action on those by either saying yes, we agree with the eva-- the conclusions of the evaluation report to add a class, or no, we don't agree with the evaluation report and send NIOSH back to work on it.

MR. GRIFFON: Okay, but I -- I thought we still left -- I thought we -- if someone could double-check that for me, I thought we still left a placeholder and we took out specific reference to a regulation because none existed, but we left a placeholder that the contractor may provide technical assistance in the SEC review process -- may provide technical assistance to the Board, and it was kind of a -- a section (c) if I remember in the task order contract.

Now I -- I don't think --

DR. ZIEMER: Or did it precede the task orders? I think it was removed from any of the task orders.

MR. GRIFFON: It wasn't in any of the tasks. I guess it's -- it's a langua--

DR. ZIEMER: Oh, you mean -- but prior to the individual tasks.

MR. GRIFFON: Right, prior to the individual tasks, I thought it still remained in

the final...

MR. ELLIOTT: What does the Board envision for --

MR. GRIFFON: Well, I don't know, I'm just saying --

MR. ELLIOTT: -- technical support? I mean --

DR. ZIEMER: Well, maybe we should have this discussion for a moment. Let's set this aside, because that's the only other thing I have before me. I wanted to raise this question and let me ask it.

We have nine petitions in some stage of process, and I think an indication that some of those petitions may be sort of fully ready for something by our next meeting -- for what? For review or just -- they'll be in the Federal Register?

MR. ELLIOTT: Well, I made a statement yesterday that we fully expect that the public will be noticed in the Federal Register that X number of petitions have been qualified. That will -- that notice will include a brief description of the petition by what site it represents. I'm hopeful also that we may have --

I can't promise this, but that we may have a class or two defined with a research evaluation report for the Board's review.

The process that is envisioned by the rule and the procedures speaks to the Board's role in reviewing and evaluating, from its statutory mandate, the evaluation that we do on petitions and advising whether to move them forward or to send us back. There's not an audit or a quality aspect of that. It's just what it is on its face value. You either accept it or you don't accept it. And it has to be a function of this Board.

DR. ZIEMER: Let me ask this question. What -- what -- the document that comes to the Board, which will be presumably the official petition and an evaluation done by staff, what is that going to look like in terms of content and -- I think one of the questions that arises is how much of it is technical information where some Board members may feel uncomfortable in evaluating it without the assistance of say a contractor -- not for quality purposes, but simply for other purposes. Or in this case, are we -- we are in a different capacity 'cause we're

part of the decision at this point.

MR. ELLIOTT: That's right.

DR. ZIEMER: So --

MR. ELLIOTT: And you don't have a lot of time. The time toll's on you.

DR. ZIEMER: We're not overseeing the quality of -- like we would on a dose reconstruction. We are actually part of the decision itself. But my question is, what is the level of technical information that this Board will have to evaluate, both in terms of technical depth and maybe in content -- I think -- we need to be able to feel some comfort level in our ability to evaluate the document.

MR. ELLIOTT: We -- yes, we recognize that as an issue, a concern that you have. We share it. We not only see the Board as an audience, we see the petitioners as an audience. We see the public as an audience. So these things will have to be couched in terms that the public can understand. We envision these will be a nominal report, ten to 15 pages; a summary page that includes the original petition, class definition, outlines the qualification process, presents a new class definition if necessary or a

revised class definition or a class definition that melds multiple petitions together in a case where we have multiple petitions for a given site. That will all be encompassed in that summary section. A discussion section that presents the case argument or the rationale for either adding a class or not adding a class, and a recommendation conclusion section.

DR. ZIEMER: And there will --

MR. ELLIOTT: Yes, a similar --

DR. ZIEMER: -- also be an opportunity for members of the public to have input on --

MR. ELLIOTT: Yes, that's in the procedures.

DR. ZIEMER: -- pro or con on --

MR. ELLIOTT: That's right, and you hear that out. It's similar to a -- the rulemaking process that you went through where it's a -- rather than a public-noticed rulemaking, it is public comment in your forum as an advisory body.

DR. ZIEMER: Okay. Comments on -- reactions -- Jim?

DR. MELIUS: Well, just to further complicate this issue, as -- as I mentioned yesterday, we will have site profile reviews and

individual dose reconstruction reviews underway and parallel to this process that will, you know, cover -- could cover some of the same sites for which there are SEC petitions. And the one site you mentioned yesterday as being -- Larry mentioned yesterday as being likely to come -- come up or some possibility it'll come up at our next meeting is the Mallinckrodt site, for which we have a site profile review that's also going on almost -- roughly the same time and could very well be ready for presentation at -- at our next meeting for the Board's decision on approving and so forth and so on. And to me it's going to be very hard to -- to separate the two. And as a Board member, I may feel -- I would be reluctant -- I may be reluctant, depending on what's in the -- NIOSH's Mallinckrodt recommendation, to review and approve or not approve that while we -- you know, depending on where our -- how our site profile review came down. And I can, you know, envision, you know, theoretically, lots of different possibilities that, you know -- again, the -- our contractor finds some source of information about dose that -- that NIOSH was not aware of or NIOSH's contractor was not aware --

and vice versa. I mean there's lots of different 'narios (sic), and you know, whether or not -- even at this point I find it hard to figure out whether -- what kind of technical help we might need or whether we will need any assistance in doing this. But we are going to have to figure out how these two processes come together.

DR. ZIEMER: And -- and we may have to actually go through the SEC process to see how that plays out. At the moment, there's no clear role for the contractor in the SEC process. I'm going to suggest that we simply remove it from these documents. We can always amend this and add it if at some point we say that there is a, for some reason, a role. We would basically say these two documents also apply to that activity. There's no reason we couldn't add it later if needed. But certainly they don't have a clear role now. It's not in any of the tasks. So my suggestion would be -- so that we can at least move ahead on this, is simply to remove it from these documents for now. And I think -- it's not obvious to me what role the contractor would have in the SEC process until we get a good feel for what that's going to look like and our ability to

evaluate those petitions as -- and maybe -- maybe we'll know that or have a -- start to have a feel for that at the next meeting.

Clearly our role is very different in that process than it is in these.

DR. MELIUS: My only concern about delaying that decision -- and I don't think we can make it today or --

DR. ZIEMER: Well, there's nothing our contractor's going to do in the meantime on the SEC, so --

DR. MELIUS: Right, right, right. Well, the problem with delaying is there is, as Larry pointed out, there's some timeliness issues related to these petition reviews, and I don't think we want to get in the position of, you know, Larry -- NIOSH having ten, you know, SEC recommendations ready for us and us saying well, gee, we need a contractor to do this or we need this assistance. And so I would hope certainly, you know -- as may be -- hopefully by the next meeting we can have a more complete discussion and NIOSH'll have worked out much -- in much more detail what will -- how it's -- the nature of its recommendation, what the report's going to be

like, what will -- what kinds of information will be given to -- to review and so forth.

MR. ELLIOTT: I think at the next meeting we need to have an agenda item where we present and walk through the procedures and highlight, you know, those activities within the procedures that are -- the Board is directly involved in. You know, the notice of qualified petitions. That's something the Board needs to be aware of 'cause it's part of your notice. Those things need to be shared with you in a presentational format, which we have not done yet. We would have put it on for this meeting, but Katz couldn't stay for the whole meeting and we had a full agenda, as well.

I also think if we don't have a research report on a petition or two for you at the next meeting, we need to have a shell of one so that you can see what it is and give us input into it.

DR. ZIEMER: Yeah, you could do it in a mock-up sort of --

MR. ELLIOTT: A mock-up, yeah.

DR. ZIEMER: So we can see what kind of data we're going to be reviewing -- yeah. Good.

MR. ELLIOTT: This is -- we're also

required to have an evaluation plan, that's part of the procedures. So you know, there's a --

DR. ZIEMER: That needs to be developed.

MR. ELLIOTT: -- litany of things here that need to be attended to for your better edification of the process.

MR. GRIFFON: And just -- just so people do realize, it is in the contract. I mean I just checked this with Jim Neton and it is, on page 7, actually, of the Sanford Cohen & Associates contract. It's no task, I agree, but if -- you know, as we're thinking about this, if we do want to create a task for something that they can assist us with -- I think you're -- I mean -- and we clearly said technical assistance. It wasn't a audit kind of role. We knew that. But I think the thinking was we might want some back-up on certain issues that we felt uncomfortable addressing. So just so people might want to look at that and think about what a task might look like, and as we go forward I think we need to think about that.

DR. ZIEMER: Okay. So then going back to the two documents, for the time being is it agreeable that we simply remove that from the

documents and ask them to modify accordingly? Without objection, we'll -- this'll be, for our recorder, on the quality assurance plan at section 3.0, second sentence, we would remove "and SEC review", and on the conflict of interest plan, page six under section 5.3, second paragraph, remove the phrase "SEC petitions". Tony?

DR. ANDRADE: Just a detail, but don't forget the org chart on the next page, and also the description of the con-- of the SEC program manager.

DR. ZIEMER: The org chart -- yes -- has an SEC petitions review manager.

DR. ANDRADE: Right.

DR. ZIEMER: And I don't know if they have -- they could still have that in their organization. Was -- was there one in the other document?

DR. ROESSLER: (Off microphone) A description of the manager in the...

(Pause)

DR. ZIEMER: Were those the only two places, Tony?

DR. ANDRADE: Right, the roles and

responsibilities and the chart.

DR. ZIEMER: Thank you. In that particular one, for example, on page seven, it looks like a sampling of petitions that they're reviewing, and this is something we, in any case, have never specified.

Any other recommended changes for those two documents? Yes, Richard?

MR. ESPINOSA: (Off microphone) Under the cost projection accuracy --

DR. ZIEMER: Which document are you in?

MR. ESPINOSA: (Off microphone) QA plan.

DR. ZIEMER: QA plan, page?

MR. ESPINOSA: (Off microphone) Ten or 11. I'm just wondering if there's any way to add maybe monthly reports to the Board or a quarterly report to the Board.

DR. ZIEMER: On cost projections?

MR. ESPINOSA: (Off microphone) Yes.

DR. ZIEMER: Let me address that separately because that's already being done and I want to speak to that here in a moment. It's probably not necessary to put it in here, but I will address that in just a moment.

MR. ESPINOSA: (Off microphone) All

right. Thanks.

DR. ZIEMER: Any other changes?

MR. GRIFFON: Just --

DR. ZIEMER: Mark.

MR. GRIFFON: Just on the conflict of interest document, I know that we had a commitment during the presentation that the conflicts of interest would be posted on the web site. I wonder if maybe that could be included in the -- and the web site location could be also, you know, included. I'm not sure what section it would go in.

DR. ZIEMER: Once these are approved. You're talking about these -- this conflict of interest plan?

MR. GRIFFON: Yeah, yeah. Yeah.

DR. ZIEMER: Once it's approved --

MR. ELLIOTT: I think he's referring to their web site, and we'll add a hot link to our to direct folks to their web site. Okay?

DR. ZIEMER: Yeah. On the issue that Richard just raised, we have -- and they're available for your perusal, they're sitting behind Larry here -- the documents pertaining to each of the four tasks. These incidentally are

not -- these are proprietary. They have cost information in it so these documents are not available to the public, but any of the Board members can peruse these. They have the monthly reports, progress reports, the individual monthly billings, the amounts spent so far on each task, the deliverables.

For example, here's task one, which is the site profile review. And if you look in the very front of this, it has all of the actions taken by the contractor by date. Then there's a section that lists the Board-approved proposal, what the task is. There's various correspondence relating to that particular task between the contractor and, for example, NIOSH in this particular case. There's -- well, there's some procedures. There's proprietary information that is -- the actual billings are in here. And incidentally, when those monthly billings come in, I see those. I have to approve those before they're paid, so those -- those come in. There's -- it shows -- the billing is broken down into detail, which person -- which contractor person accumulated so many hours and they're billed at a certain rate, and travel, overhead and all those

things are in here. There are charts showing the total spent on the tasks so far, the percent of the award and so on. So all that detail's here and we get -- that is updated monthly. That's being provided -- it's being provided to me and it's being provided to NIOSH, the person that NIOSH has designated to track the expenditures in the contract.

Are there any questions on that? And if there's information that Board members want to see monthly -- I mean any of that can be distributed, but -- but for example, here's one from July where I have signed off saying the amounts claimed are reasonable and require -- I have to certify that if there was a deliverable that has been delivered, and then -- I'll show you, Rich, 'cause you're right here -- it shows all the previous vouchers and the amounts and total billed to date against that task, percent of the funds expended. Those are all tracked and a detailed breakdown. So we have that on every task, and it's -- yes.

MR. ELLIOTT: The procurement office receives the billings and then they are sent to -- to my office to Martha DiMuzio, who you've met.

She then provides a copy of those to Dr. Ziemer, asking him to evaluate them and sign off on them, or kick them back. We could, if you -- if it's the Board's pleasure, we can have a presentation on each task and the status of progress of expenditures, not progress of work. Okay? That's Sanford Cohen & Associates that should present you progress on their work, but we can give -- if you -- if it's your pleasure, we can summarize for you in a report to the Board, and it can be done either in a public presentation or in a written summary --

DR. ZIEMER: For each meeting?

MR. ELLIOTT: For each meeting.

MR. ESPINOSA: (Off microphone) I'd just -- I'd personally like just to see a general overview of what's being done and --

DR. ZIEMER: Why don't we schedule that as a regular part of each meeting. It'd probably only take 15 minutes or so. Would that be agreeable?

MR. ELLIOTT: That's fine.

DR. ZIEMER: Would the rest of the Board like to have that information or --

MR. ESPINOSA: (Off microphone) So

moved.

DR. MELIUS: (Off microphone) Yeah.

MS. MUNN: I would hope that it would only be a very, very high level overview. I for one am -- I was impressed with the amount of detail that was in the financial tracking of the QA plan already, and I just --

DR. ZIEMER: I think it's going to be a bird's eye view and that's what you're asking for, Rich.

MS. MUNN: Yeah.

DR. ZIEMER: Where are we on -- where are we on each task and --

MS. MUNN: Yeah.

DR. ZIEMER: It won't take too long. We'll take it by consent that that will be provided in the future. Thank you.

And then I think we'll keep -- these will be here if you want to peruse these in detail at the meetings, so I think Martha will --

MR. ELLIOTT: These will serve as a reference -- set of reference documents for the Board members. They are available at each Board meeting. They will be maintained in a current status, up to the point of, you know, whatever we

can arrive at before -- before we present to the Board here, before we're at a Board meeting.

DR. ZIEMER: Thank you. Do we have other items that we -- that the Chair has overlooked or that --

MR. ESPINOSA: (Off microphone) There's a couple of things that I'd just like to bring up.

DR. ZIEMER: Yes, please.

MR. ESPINOSA: Number one, on a -- whenever we go to these sites, I'm just wondering if we could get like a site overview of what the site does and their -- it'd be especially helpful to me when the public speaks that I'd kind of know what they'd done.

DR. ZIEMER: Excellent suggestion. I don't know what's planned for tomorrow, but it certainly would be helpful to those that are going to have an overview of the kinds of activities the -- at least the primary facilities that are on the site, what the site's role has been in the past, that kind of thing.

MR. GRIFFON: I actually was talking with Jim yesterday and I thought it would make a lot of sense, up front on the agenda --

DR. ZIEMER: In the meeting.

MR. GRIFFON: -- if -- if you had not a -- just a -- not just a historical operations overview, but if a site profile's been completed for where -- the location where we're at, sort of present a summary of that, 'cause that might also bring some questions up from the audience, you know, later on in public comment time. So it might be a way to -- for us to learn about the site, but also to bring some questions --

DR. ZIEMER: And perhaps a description of the main processes that have been done in the past so that when workers refer to working on some line or whatever that you can relate that to a location or a process. I think it's a good suggestion, Rich. I'm not sure how to implement that. Do you know on the tour this time to what extent they'll be given kind of an overview as -- at the front end of the tour?

MS. HOMER: (Off microphone) Well, (Inaudible).

(Pause)

MS. HOMER: From my understanding, there will be packets provided to each attendee that include maps and things of that nature. There's

going to be a CD provided to each person. What information is on that CD, I don't know. I know that in Idaho Falls we'll be seeing a movie, and then on the site out -- or on the trip out -- I'm sure we can pose questions, as is -- norm.

DR. ZIEMER: Well, hopefully there'll be some historical information, as well, in the movie that sort of lays the groundwork -- why is this site here, what has it done in the past, what is it doing now. I think that --

MS. HOMER: And I suspect that's what's in the packets of material we're getting. I know that there'll be a map and there'll be a question and answer period, as there always seems to be on the tour.

DR. ZIEMER: But perhaps in the future -- I think you're asking, Rich, in the future if we might -- particularly if we go to a place like Pinellas -- what did -- what went on here at this plant. Yeah. Okay, thank you. Good suggestion. Did you have another item?

MR. ESPINOSA: Yeah, on Dr. -- on the outreach and the schedules -- on the outreach, I'd like to see a schedule for the site profile. And I'd also like to make sure that the area --

Department of Labor resource centers receive that schedule, too. You know, I know there was an outreach in Pantex and the Department of Labor for New Mexico did not receive that.

DR. ZIEMER: What needs to be done here? I'm -- can you flesh this out, Jim?

DR. NETON: Could I --

DR. ZIEMER: Yeah.

DR. NETON: I'd just like to address the practicality of the request. I think it's a good idea. The practicality is, though, that these -- these meetings get arranged fairly short order. It takes a lot of negotiation with the local union folks and we rarely have more than three to four weeks' notice. So we can't put out, for example, a schedule for the next six months. It hasn't happened that way yet. We wish we could. So the best we can do is to notify -- as soon as we know -- you know, the affected people. But we also do -- always notify Department of Labor, at least the national level, that we're going to be doing that and invite their participation -- if they want. We don't want to force them into it. It's not our call to require them to be there. But we find it is helpful that Labor is there.

MR. ESPINOSA: Yeah, one of the -- one of the reasons why I'm saying this and suggesting this is there's outreach groups like the Los Alamos POWs that would have been probably instrumental -- and will be in the Los Alamos outreach.

DR. NETON: Right, and I think we've been coordinating with them. Mark Lewis -- I don't know if everybody has met Mark yet. He is -- he used to be a member of the union at Portsmouth, has now joined ATL, one of the -- ORAU's contractors, as the lead on this issue. And one of his jobs now is to go do pre-meetings at sites. He will go to a place like Los Alamos, knock on some doors, find out who the important people are that can help him arrange these meetings, and then we go about the business of finalizing. So we're doing a lot of -- a lot better job of groundwork up front now than we did say three or four months ago.

DR. ZIEMER: Okay. Thank you.

MR. ESPINOSA: Thank you.

DR. ZIEMER: Other items? Jim?

DR. MELIUS: I have a couple of other questions. One is a question on -- back to our -

- our contractor. Presumably at our -- by our next meeting or before our next meeting, they will have done -- completed some of the site profile reviews. What is our procedure for those being shared with the Board, as well as being presented to the Board? Have we sort of decided on a format and an approach for doing that?

DR. ZIEMER: We do not have a set procedure for that. It would -- I think on the -- on the site profiles, I believe it's in order for us to get a copy of the draft in advance, is it not? Can that be done? I'm asking this from a legal point of view.

DR. NETON: Well, advance to the extent that -- and Dr. Ziemer, you were a part of this conversation we had with Sanford Cohen -- that NIOSH would be first afforded a fact-- a review for factual accuracy of the draft before it was issued to the Board. At the time it's issued to the Board I think it becomes a public -- public document, and so we just --

DR. ZIEMER: Well, that was my question. Is it public or predecisional if we're -- if it's distributed to us for review prior to a meeting?

DR. NETON: Okay, Liz Homoki sitting next to me says it's predecisional, so I guess it's not necessarily publicly --

DR. ZIEMER: Until we adopt it, it's --

DR. NETON: -- available until you adopt it. But once it was -- well --

DR. ZIEMER: Once it's on the floor at the Board meeting, it becomes --

DR. NETON: Right, then I guess that's your option then on how to -- how to proceed with that predecisional draft --

DR. ZIEMER: Right.

DR. NETON: -- whether it would be a closed session or just have it vetted at a public session.

DR. ZIEMER: Yeah. Well, let me kind of bounce your question back to the full Board, Jim, and that is how does the Board wish to proceed on this? It would make sense to me that we got some kind of a draft of the proposed report at some point when -- when the contractor believes it's ready. They will have done a reality check with NIOSH on factual accuracy at that point. Tony?

DR. ANDRADE: I think I would just suggest -- I guess to start the conversation --

that we follow a parallel path. I think it is wholly appropriate that NIOSH reviews it for factual accuracy. But after that, the review itself should be considered by the entire Board during a closed session.

DR. ZIEMER: I don't know if there's any privacy issues that would allow us to do it in a pri-- in a closed session. My impression is that the reason for the closed session was --

DR. ANDRADE: Was Privacy Act.

DR. ZIEMER: -- was Privacy Act issues on individual cases. I don't think that would be the case for a site profile, would it?

MS. HOMOKI-TITUS: (Off microphone) I can't imagine that it would be.

DR. ZIEMER: So it --

DR. ANDRADE: Oh, I can -- I can imagine.

DR. ZIEMER: You can imagine?

DR. ANDRADE: Yes, of course, especially if they're going to do interviews with site personnel.

MS. HOMOKI-TITUS: (Off microphone) But I'm going to have to see (Inaudible).

DR. NETON: The only issue that I could

foresee is that in order for the Board to understand what has been completely done, as Tony suggests, is maybe some Privacy Act information may need to be discussed to understand some concerns or issues the Board might raise. I mean that's a possibility. I don't know.

DR. ZIEMER: Well, what would have to happen, I think, in reality is that once the draft document was ready, if the contractor had some concerns that in discussing this they had to identify individuals from whom -- I don't know if it's individuals from whom they obtained information had to be disclosed or what -- then perhaps it could be in private session. Otherwise, I think it's got to be in the open session, as far as I can understand it. Robert?

MR. PRESLEY: If there are areas in there where we would have to use a name or a -- or a -- of a person that they went through, could you not leave that out and put the site that -- I mean the site's not going to be anything.

DR. ZIEMER: I mean it's going to be -- it's going to be an evaluation of the site profile, so I -- the report itself -- it's hard for me to envision why it would necessarily bring

out individual issues. Can -- can you think of any? I mean --

MR. ELLIOTT: When we do our work and we consult with people -- like if you look at Bethlehem Steel, or maybe that's not a good one; what's the Bridgeport Brass one -- we use personal communication. And if we cannot get a release from the individual that we talked to, then that's the way it is couched, a personal communication. I would hope that your contractor would use some similar approach to either get a release or waiver from the people that they talk to so that their name could be used as a reference, or it is listed as a personal communication. Otherwise, I -- you know, I'm at a loss, too, as to -- unless -- unless there's a -- the only other thing I could think of, as I was sitting here listening to the discussion, unless there is a document that is found by your contractor that we had not discovered that may have personal dose data in it, you know, personal identifiable information in it that would -- in that case, I'd hope they would redact it for public consumption.

DR. MELIUS: But most likely they're

just going to reference it.

MR. ELLIOTT: Most likely they're going to reference it, so --

DR. MELIUS: So it's not going to be -- yeah.

DR. ZIEMER: Yeah. So my sense of it is that it's -- it comes to the Board so we have a chance to see it before our meeting, but it is part of the open meeting.

DR. MELIUS: This -- the procedure -- and again, I'm concerned about appearances here, that -- at the time it comes in for this fact-checking by NIOSH, do you get a copy of it, Paul, or is it just --

DR. ZIEMER: No.

DR. MELIUS: Is there going to be documentation of what changes are ask-- what -- what if there's a dispute between -- about the facts between the contractor and NIOSH? Is -- how do we get that resolved?

DR. ZIEMER: Actually I think maybe Jim -- can you answer --

DR. NETON: Yeah, I think -- I think that, knowing -- working with SC&A thus far, I'm very certain there will be some documentation if

there were any changes to some record file. I mean that's going to happen. I don't think there'd be any problem with -- with Dr. Ziemer receiving an advanced copy, I suppose, while we're doing a factual accuracy check, just so a paper trail could be followed as to what -- what had changed. But really, this is -- this -- SC&A is under no obligation to change anything at all. I mean all -- all we're doing is be able to provide comments back as to the factual accuracy. If they disagree that it -- they disagree that this is the way it's going to be, that's their prerogative. We have no control over their ability to edit the document at all. It's just going to be our comments back them on --

DR. ZIEMER: They would just comment that we don't agree that you've -- that you've --

MR. ELLIOTT: I think --

DR. ZIEMER: -- characterized this correctly or whatever.

MR. ELLIOTT: You know, we'd play an untenable role here, and I would hope that it's the Board's pleasure and insistence that someone on this Board -- and I think this was discussed Monday afternoon -- see the NIOSH comments for

factual accuracy and clarification that were given, and understand then from that point of view, you know, what changes were occur-- took effect or what didn't take effect, you know.

DR. MELIUS: Yes, no, that -- that's --

DR. ZIEMER: So it's tracking both sides --

MR. ELLIOTT: Yeah.

DR. ZIEMER: -- of the issue.

DR. MELIUS: Right, and so if a copy came to you, Paul --

DR. ZIEMER: Then we would also want a copy of the comments.

DR. MELIUS: -- and you'd get a copy of the -- or you know, whenever -- whatever the timing is, I don't care, but the -- that way you're in the -- the report's to the Board. It's gone to NIOSH to -- you know, for this factual check, which is --

DR. ZIEMER: Sure.

DR. MELIUS: -- which is appropriate, and then -- you know, if there is -- in fact it may help resolve any -- any issues or what-- and -- 'cause we are going to decide what can be presented and so forth, and we certainly don't

want to be in the position of sort of point/counterpoint or, you know, that, I don't think.

DR. ZIEMER: Yeah.

DR. MELIUS: And so at the same time that says yeah, there is a paper --

DR. ZIEMER: There's a paper trail.

DR. MELIUS: -- trail or whatever you want to call it with that and it protects everybody involved.

DR. ZIEMER: I think it's a good suggestion and I'm certainly willing to do it that way if there's no objection on the part of the Board.

MR. ELLIOTT: I don't even see any reason why our comments wouldn't become part of the public record. I would hope that they would.

DR. ZIEMER: Sure.

DR. NETON: I might just add one thing. In our discussion on this with SC&A where Dr. Ziemer was involved, John Mauro agreed to take on the task of -- of writing this up as an internal procedure within SC&A to improve the transparency of the whole process so it didn't appear to be an arbitrary process. And I haven't seen that yet,

but I know that he was -- he volunteered to do that, so we might ask him -- the Board might ask to see if that -- if that's done.

DR. MELIUS: I have one other -- I guess question or comment, would be if -- if NIOSH is going to be ready at the next meeting to present us with an evaluation on an SEC petition, would it -- would it -- and I guess this is my question. Would it be helpful for us to have a working group set up to -- to interface with NIOSH and staff between now and the next meeting so that we get -- you know, maybe make that -- our evaluation of that petition go easier when it is presented to -- to the Board? There are going -- I mean there's a number of --

DR. ZIEMER: Are we likely to be evaluating a petition at the next meeting, or --

MR. ELLIOTT: You're -- I -- this is not promissory. Okay? I certainly expect you're going to have an evaluation plan to look at.

DR. ZIEMER: Yeah, that's --

MR. ELLIOTT: I would -- I would also hope that we might have one or two or -- I don't know how many, maybe at least one -- class petition evaluation report for you to look at.

So you know, we're -- we're working very hard trying to push these things through, at the same time -- at the cost of not bringing the Board along fast enough, too. I recognize that. So if you want a working group, I'll work -- I'm willing to work with y'all.

DR. ZIEMER: This would -- this would mean that whatever proposed SEC petition is ready to go would have to be ready for a working group prior to a meeting. I suppose it could be the day before, but we have a day set aside already for our subcommittee, so then we're getting -- we're moving the timetable back. But we can certainly set up a working group on a standby basis, if the Board wishes, so that, if needed, they could be marshaled into action.

DR. MELIUS: That -- that's really what I --

DR. ZIEMER: Is that your suggestion?

DR. MELIUS: -- think is -- and -- yeah.

MR. ELLIOTT: They could certainly meet separately from the subcommittee on the same day if that's, you know, necessary.

DR. MELIUS: That working group would be sort of contingent on the -- you know, whether or

not you're ready -- if you're going to be ready or not.

MR. ELLIOTT: It wouldn't be in the same room --

DR. ZIEMER: However -- however, we are envisioning that at our next meeting that we will be reviewing 20 cases as a full Board in closed session.

MR. PRESLEY: (Off microphone) That's right.

DR. ZIEMER: So unless we have a fourth day set aside, we're -- on the other hand, a working group can also work by phone, if necessary, if they have something to look at. Does the Board wish to have a working group on -- sort of on standby for this activity if -- if necessary?

MR. ESPINOSA: I don't think that'd be a bad idea.

MR. PRESLEY: Question.

DR. ZIEMER: I'm -- yeah.

MR. PRESLEY: Could -- we're supposed to get a plan prior. Would it be possible for us to get a copy of the plan and us go through that, and let's go through -- if -- if we do get some

reports ready to go, go through them. And if we need a working group, then come up with a working group after we see how much detail and work this is going to be. Would it be possible for us to get that evaluation prior to so that we can all look at that?

DR. ZIEMER: Evaluate the plan itself.

DR. MELIUS: But I think we have to establish the working group at a meeting, so we have to -- if we're going to do it between now --

MR. PRESLEY: It could be done -- it could be done at the next meeting.

DR. ZIEMER: The working group could look at the plan, though, is what he -- what I think is --

MR. PRESLEY: Do you want the working group to look at the plan?

DR. MELIUS: Look at the plan, and then if necessary or appropriate, yeah.

MR. ELLIOTT: I don't see a problem with that at all. I think that's -- makes a lot of sense for us to get an evaluation plan to you so that you can see what that looks like -- and that's nothing more than telling you where we're going to look, which rocks we're looking under

and how -- you know, how far we're going and why -- you know, what we're --

DR. ZIEMER: We could --

MR. ELLIOTT: -- using in that eval--

DR. ZIEMER: -- we could set up --

MR. ELLIOTT: -- in that research.

DR. ZIEMER: -- a working group of three or four. They'd be on a standby basis. They'd have to establish a date based on what happens at NIOSH. There appears to be -- without taking a formal vote, there appears to be support for the idea of having a working group on call. I now then will ask for volunteers. We need at least three people to be in the working group.

DR. MELIUS: Henry, Roy, Mike --

MR. ESPINOSA: I second.

DR. ZIEMER: You're volunteering for them. Okay, Rich has volunteered --

DR. MELIUS: I'll do it, though.

DR. ZIEMER: -- Wanda has volunteered, Jim has volunteered, and we can add one more -- Bob Presley. We've got four people.

MS. HOMER: That's Rich, Jim, Wanda and Bob?

DR. ZIEMER: Rich Espinosa, Wanda Munn,

Jim Melius, Robert Presley. Their task will be to evaluate and make a recommendation on the evaluation procedure -- procedures --

MR. ELLIOTT: Plan.

DR. ZIEMER: -- plan, evaluation plan, and if necessary on a petition, if it is in a state for such review. Let me ask, Robert, will you be willing to serve as the coordinator and make sure that the -- you -- the four of you come up with a common time, you either share it by e-mail or phone, conference call, whatever, coordinate time and effort and make sure everybody's got the documents, if that's agreeable?

MR. PRESLEY: I'll do that.

DR. ZIEMER: Thank you. And then you'll report back to the Board at our next meeting. Thank you.

MR. ELLIOTT: If I may, just so everybody understands, could we give you an evaluation plan today? No. If we had qualified a petition, were we ready to give you an evaluation plan? On short order thereafter. Okay? But we've got to qualify the petition first, then come -- the ne-- first things first.

Then the next thing is give you an evaluation plan.

DR. ZIEMER: Okay. Thank you. Other comments, suggestions, recommendations?

(No responses)

DR. ZIEMER: Anything for the good of the order?

MR. ESPINOSA: Motion to adjourn?

DR. ZIEMER: Wait, I -- before you adjourn, Cori has a final comment.

MS. HOMER: Very quickly, and I'm sorry to not give you this information earlier, for those who are attending the tour, a reminder to bring photo ID and cash for lunch. We'll be eating in the lunchroom.

DR. ZIEMER: Thank you. Mark, another comment?

MR. GRIFFON: And it's probably a little late in the day to bring this one up, but the -- the site profile reviews -- I mean I'm going back to yesterday's presentation. If -- if SCA is going to give us a report, we still have that question of -- the task says final report, and you know, we had some dialogue yesterday about, you know, could we make this an interim report

because they haven't had access and they might want to go...

DR. ZIEMER: Mark, I interpret that more as a heads-up issue of concern. I don't think they're at the point where they're saying that they want us to change the task right now. I -- that was -- would have been my understanding of it, because now the access issue has pretty well been taken care of and they're moving ahead. So unless they come back to us and say we really aren't going to get there --

MR. GRIFFON: My under-- my understanding was they felt like they were up against some deliverables, but if they delivered what they have now, it would be perceived as the final report and therefore there'd be no chance to go further and -- you know, I -- I just -- I don't know if that's an issue or not an issue or...

DR. ZIEMER: My interpretation of what they said was that they're giving us a heads-up that they might get to a point where they feel like they -- they have not finished but can't go any further. I don't believe they're there yet.

DR. MELIUS: Yeah, that --

DR. ZIEMER: How did other --

DR. MELIUS: My -- my -- that was my recollection, too, at least for the ones that are -- had the earliest deliverables, I believe -- Savannah River, Mallinckrodt, Bethlehem, if --

DR. ZIEMER: I think they're okay on those.

DR. MELIUS: -- if those issues were resolved for --

DR. ZIEMER: Right.

DR. MELIUS: -- and that we just have to see where things go with some of these other issues later on.

DR. ZIEMER: They were kind of laying the groundwork for coming back to us and -- and saying we can't go as far as we thought we wanted to, is how I understood it. I'm -- I don't know that there's any action that we could take now that would --

MR. GRIFFON: Okay. I just --

DR. ZIEMER: Until they --

MR. GRIFFON: Maybe in the future we -- I --

DR. ZIEMER: We may have to do something in the future, and I think he was --

MR. GRIFFON: Yeah, and I'm thinking about how -- how the Board is going to interface --

DR. ZIEMER: I think he didn't want to hit us cold with that at some point down the line.

MR. GRIFFON: Okay. But I think in the future we may need on there --

DR. ZIEMER: We may need to define what we think is a final report.

MR. GRIFFON: And -- and is within the -- I mean we may have to make some interpretations as a Board as to the --

DR. ZIEMER: Yes.

MR. GRIFFON: -- technical scope.

DR. ZIEMER: Yes.

MR. GRIFFON: Right.

DR. ZIEMER: Yes.

MR. GRIFFON: All right. I guess we'll leave it --

DR. ZIEMER: Yeah, good comment. Other items?

(No responses)

DR. ZIEMER: If not, we stand adjourned. Thank you very much.

(Whereupon, the meeting was adjourned at 3:10 p.m.)

C E R T I F I C A T E

STATE OF GEORGIA)
)
COUNTY OF FULTON)

I, STEVEN RAY GREEN, being a Certified Merit Court Reporter in and for the State of Georgia, do hereby certify that the foregoing transcript was reduced to typewriting by me personally or under my direct supervision, and is a true, complete, and correct transcript of the aforesaid proceedings reported by me.

I further certify that I am not related to, employed by, counsel to, or attorney for any parties, attorneys, or counsel involved herein; nor am I financially interested in this matter.

WITNESS MY HAND AND OFFICIAL SEAL this _22nd_ day of September, 2004.

_____
STEVEN RAY GREEN, CVR-CM
GA CCR No. A-2102