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

+ + + + +

ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

+ + + + +

WORK GROUP ON PINELLAS

+ + + + +

MONDAY
NOVEMBER 19, 2012

+ + + + +

The Work Group convened telephonically at 11:00 a.m., Eastern Standard Time, Phillip Schofield, Chairman, presiding.

PRESENT:

PHILLIP SCHOFIELD, Chairman
BRADLEY P. CLAWSON, Member
JOHN W. POSTON, SR., Member
LORETTA R. VALERIO, Member

ALSO PRESENT:

TED KATZ, Designated Federal Official
BOB BARTON, SC&A
MEL CHEW, ORAU Team
PETE DARNELL, DCAS
BRIAN GLECKLER, ORAU Team
DONNA HAND
KARIN JESSEN, ORAU Team
JENNY LIN, HHS
JOHN MAURO, SC&A
ROBERT MORRIS, ORAU Team
JIM NETON, DCAS
JOHN STIVER, SC&A
ABE ZEITOUN, SC&A

T-A-B-L-E O-F C-O-N-T-E-N-T-S

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

(11:00 a.m.)

MR. KATZ: Okay. Very good. It's 11:00 a.m., it's start time. This is the Advisory Board on Radiation and Worker Health, Pinellas Work Group. And we will get started with roll call.

We're speaking about a specific site, so for all Agency-related and Board-related officials, please speak to conflict of interest as well. And we will get going. So roll call, starting with our Board Members, with the Chair.

(Roll call.)

MR. KATZ: Very good. That completes roll call. Let me just remind everyone on the lines to please mute your phone except when you're addressing the group.

Press *6 is you don't have a mute button to mute your phone. Press *6 again to take your phone off of mute. Please don't put the phone call on hold at any point. But hang

up and dial back in if you need to go for a piece.

And let me also note for everybody, the agenda for the meeting should be posted on the Advisory Board under the, on the NIOSH website under the Advisory Board section, under meetings for today's date.

And there may now be a White Paper also posted there from SC&A. And it's also been distributed by other means this morning. And, Phil, it's your agenda. Phil, you might be on mute.

CHAIRMAN SCHOFIELD: There's been, NIOSH did a substantial re-write of a lot of the Technical Basis Documents. And we had some on-site interviews with personnel earlier this spring, with site experts, to try and flesh out some of the questions we had.

And I do appreciate all the work that Abe and everybody, and John and Pete, and have all put into this, and Brian. So I guess we'll go ahead and start with the kind of

summary, since John did the summary there of the site interviews, if that's okay with John.

MR. STIVER: Okay. That's fine with me. My voice is almost shot here. I'm going to try to parse my words very carefully. We did the site interviews following the meeting back in October, where NIOSH presented the revisions to the TBD, very extensive revisions.

And we had some ongoing issues from our 2006 review of the original TBDs, which we were tasked to carry through. I believe there's seven of them listed in the paper I sent around to everybody.

And to help resolve some of these we were also tasked to go do some site interviews at, down in the Pinellas area, which we did in late January of this year. We had originally planned to interview 13 individuals.

We were able to interview 12 of them. And that went very, very well. We were

able to get a lot of useful information. I listed here, that was Phil, myself, Abe and Peter.

But I forgot to mention also Dennis Vernon from DOE. And without him I don't think this whole thing could have happened. He was very instrumental in making, taking care of all the logistical aspects.

We are now in the place where we received the comments, the interview summaries, back from the respective interviewees. They are now in the position, through one DOE review, almost finished.

I've got two more to go back through and make sure that all the details are correct. And after that they're going to go back to Dennis, and then be distributed out to the various interviewees.

This process has taken a lot longer than we had originally anticipated. Back when Kathy DeMers was kind of the force of nature behind all things related to

outreach, she got around the whole show.

And this system that we had worked pretty well, that as a result of mainly Pinellas and some other things, that we've actually proposed some changes to the work procedure tab that we hope will kind of streamline the process.

But anyway, I think we're in a place now that I think, probably by virtue of the interviews and the information we discovered, to where we can close out, or be very close to resolving most of these seven issues.

Now the first one, this is Issue 1. And this is the review of the documents that were in the summary of data capture searches. This is in a whole compendium of references that NIOSH had put together originally for their, the first round of TBD reviews.

And we had come up with a finding back, you know, and remember this is a

snapshot in time from six years ago, when we were kind of under the impression that there was a lot of this data coming from 1980 and beyond.

And we're going to be stuck with this, or we're going to have to deal with this situation we've had in the past, where you have to back-extrapolate your earlier years because of the paucity of data in those years.

And so we're kind of concerned that the coworker model might not adequately represent exposures that might have taken place in that 1957 to 1979 time frame.

But since the October meeting I went back to TBD-6, Appendix B, which is the NIOSH coworker model. And actually I believe it's on Page 54 of that model.

I don't know if anybody has that up right now, from TBD-6, Table B-1. And this is a very nice summary presentation. This is the numbers of monitored personnel, and doses are binned by those greater than 100 and those

greater than 20, from 1957 up through 1994.

And when you look at this data set, it does not look like there is a paucity of data pre-1980 at all. If anything, I think in 1957 and 1958 for only 71 and 142.

But beyond that it kind of stabilizes at around 250, then about 350 personnel, for a total of roughly around 1500. About a fifth of them were monitored. And the way this model is set up is kind of interesting.

It's -- rather than as we would have expected, you know, back in this historic time frame, we'd have thought that we'd try to, you know, have the granularity to assign doses by year, or whatever.

But due to the uncertainties and involved in doing that, and, you know, the limitations in those earlier years -- like NIOSH, they just created a distribution for all the entire time period. And this is a distribution of whole body dose.

It's actually a mixture of external photon dose, neutron dose, and also tritium dose. I believe Brian can correct me if I'm wrong. But the interpretation I had was that it really was possible to tease out the various components.

MR. GLECKLER: That's correct.

MR. STIVER: And so this is a distribution of whole body doses, and picked off the 95th percentile. And basically that's going to get, all unmonitored workers are going to be assigned this 95th percentile coworker dose.

And when you look at the entire distribution you really would have to -- if you have uncertainty, it would be introduced by adding a few extra sets of data in particular years that are kind of washed out.

Because, to have an impact on the 95th percentile, you'd have to have a sea change in the exposure potential compared to what we know was actually existing at that

point.

And so at this point, I don't think there's really a lot to be gained by running this thing to ground and checking every reference that was put in place. I think NIOSH has done a commendable job.

They've added a lot of new references for the descriptions we've seen. They seem to be appropriate and adequate. And based on the new approach for the coworker model, I just don't see that this is really a pertinent issue at this point in time. Anybody else would like to weigh in?

MR. DARNELL: Yes. This is Pete Darnell. I agree.

MR. STIVER: Okay. Then if nobody has any objections, I think we can close out that issue.

CHAIRMAN SCHOFIELD: Okay. So let's move on to Issue Number 2 there.

MR. STIVER: Give me a second to catch my breath.

CHAIRMAN SCHOFIELD: Sorry. Jumping the gun.

MR. STIVER: Okay, this is John. I'm back. The second issue is related to the Mound or the stable metal tritides intakes. And we know this is, you know, by virtue of the manufacturing processes that were going on, basically building neutron tubes, where you had these targets that would have a metal film vapor deposited on to the targets. And then --

MR. DARNELL: John. This is Pete.

MR. STIVER: Yes.

MR. DARNELL: We don't need to discuss the process.

MR. STIVER: Right, right. But the model that NIOSH had put forward was based on the earliest iteration of the Mound tritides model, which was, I believe, released shortly after our October 2011 meeting.

Since that time, that model has undergone, there have been many White Paper

exchanges and Work Group meetings. And that basically resulted in the refined model that is actually going to be used for dose reconstruction at Mound. And for which the Board found that it was scientifically sound and claimant-favorable.

And so we have the situation again where there is a snapshot in time. You know, the paradigm has kind of shifted since that original review and since the meeting in October.

SC&A, we believe that that is a good model, that Mound model. Its refinements, the parameter values that were selected, such as the resuspension factor of five times ten to the minus five per year from NUREG/CR-5512. And some other aspects that are covered in extreme detail in our review and the various exchanges.

The only fly in the ointment that I see at this point is that we have not yet reviewed the data, the GE reports from 1967 to

1973, the health physics reports. Basically, these are the swipe data that were used to ascertain which were the -- and in this case I believe NIOSH is planning to use the highest value that we found, which was, I believe, in 1970, whereas the Mound model used the 95th percentile on a yearly basis.

The Mound model had a huge amount of data. I believe it was like 50,000 or 60,000 individual data sets, data swipes, samples that were combined over a period of approximately 20 years.

And Bob Barton did a yeoman's job of reviewing that data and analyzing it. I would say that before I would be comfortable signing off on the use of this model, we would like to look at that data set and do kind of a similar completeness evaluation, like we did for Mound.

I think the model is fine. But like with any model, you know, the quality of the data that's going into it is really going

to be the determinant here.

DR. NETON: John, this is Jim Neton. Are you finished?

MR. STIVER: Yes, I am.

DR. NETON: I've taken a look at what we're doing for Pinellas for tritides. And I had to refresh my memory. And in doing this I've noticed that there's a couple of things that NIOSH probably needs to do before you guys would review this.

As you pointed out there is a difference in the way the Mound model works, versus what's being done at Pinellas. And most notably that's the resuspension factor.

Pinellas uses a one times ten to the minus sixth per year, as opposed to five times ten to the minus fifth, as used in Mound.

And also, we're using in Pinellas the highest value, that you correctly pointed out, that was identified through the 1970 time frame. It's much higher, by an order of

magnitude or more, than what was observed over the entire period.

And so I'm wondering if we shouldn't go back and re-look at those data to see how this model plays out in light of what was at Mound. And in particular, you know, the mix of different forms of stable metal tritides or tritides themselves that may have been there.

And finally, I have picked up on an error in this model that we've identified using TIB-9 to calculate ingestion intakes. I don't know if you were involved in the conversation we had on the TIB-9 issue at the Subcommittee meeting last week or so ago.

MR. STIVER: Yes, yes. I was there on that one.

DR. NETON: And it turns out that what we were doing for ingestion intakes, in some cases, and it turns out this is also the case in Pinellas, is incorrect.

We took the surface contamination

of ten to the eighth, I think, DPM per square meter. And calculated an airborne concentration of 440 DPM per cubic meter. And then we said ingestion will be 20 percent of that value on a daily basis.

That's the TIB-9 approach. But the fact is that you can't use a resuspension factor to come out with a daily ingestion intake. It's just not appropriate.

So at a minimum, the inhalation or ingestion intakes are going to have to be revised for Pinellas, along with a number of other TBDs.

But so I think it behooves us to take a look at this, and fix at a minimum that issue. And then maybe do a review of the model that we use for inhalation, in light of what we've done in Mound.

MR. STIVER: This is John. That would be perfectly fine with us.

DR. NETON: I don't think it makes sense for you guys to embark on a review at

this point, when we know at least we have one issue.

MR. STIVER: Right. Yes, I would agree. Make sure that you have the definite latest and greatest version before we take a look at it.

DR. NETON: Yes. And as you said, a lot of thinking has gone on related to stable metal tritides and exposures. And I'd like to verify that what we did at Mound is either appropriate or not at Pinellas. And if not, you know, look at what we've done and see if it still holds water.

MEMBER CLAWSON: Hey, Jim, this is Brad Clawson.

DR. NETON: Yes.

MEMBER CLAWSON: What type of a time frame are we looking at for you guys to kind of go through this and revise?

DR. NETON: I just discovered this yesterday, I haven't really had much time to think about it, Brad. But --

MEMBER CLAWSON: Well, and I understand that, Jim. I'm not trying to put you into a corner. It's just that Pinellas has gone on for so long, I just, you know, I didn't want to embark on another --

DR. NETON: I don't think this is going to be a major effort, to be honest. The fixing of the TIB-9 approach for ingestion is a simple fix. It really comes down to whether we use one times ten to the minus six per meter or something else.

And do we use the highest surface contamination level ever measured over a 15 or so year period? Those are the two things I really want to look at. I don't think it will take a long time.

MEMBER CLAWSON: Okay. I just, I was just trying to get a feel for it.

DR. NETON: I don't, you know, I don't control the resources at this point. So I can't tell you that. But we could get you an estimate, yes.

MEMBER CLAWSON: Well just, you know, just so the Work Group kind of knew what we were working toward and stuff. It's just --

DR. NETON: This is not like the capture or anything like that. It's not going out for additional information. It's just simply looking at the data we have and trying to make the most sense of it in light of what we did at Mound.

DR. MAURO: Jim, this is John Mauro. I have just a couple of suggestions that might be helpful, since you'll be, you know, moving into your data.

As John had pointed out before, one of the areas that we would, I guess, eventually look at is data gap analysis regarding the completeness of your data set, the swipe data. As we did, as Bob Barton did, when we reviewed your Mound data set.

That was critical, making sure that you had -- and you had an abundance of

data. While you're in that process, the degree to which you could put together some metrics showing places where there may have been some gaps, if there were any, and how to deal with those gaps.

This would help to complete the story, if you haven't done that already. You may have done that already. So as part of your revisit of it, that might be helpful.

The other suggestion has to do with -- I know we're talking about tritides and resuspension. I seem to recall that tritiated water -- now changing subjects on you a little bit -- in some venues, and it may have not been this one, the resuspension approach, whether it's ten to the minus six, or five times ten to the minus five per meter was applied to tritiated water during the residual period, which seemed to be a strange thing to do.

And I'm not sure if that was done here. If it hasn't been, disregard the

comment. But if it was, that may be another subject that's of interest, because of the mechanics involved.

DR. NETON: You're saying that we used a resuspension factor for treated water in the residual period?

DR. MAURO: I'm not -- I have to apologize. I'm not sure. I did come across that in one of the reviews I've done recently. And I'm not sure the degree to which you might have done that here.

You may not have, and then just disregard this comment. It's just something that was on my mind that I thought perhaps was done here. If not, then disregard the comment.

DR. NETON: Okay. We'll take a look at it, John.

CHAIRMAN SCHOFIELD: Jim, I got a quick question. This is Phil. On the swipe data, is that, those swipes like from the daily RTG swipes? Or are these incident-

driven swipes to get that number, 400?

DR. NETON: You know, I've not been involved with this intimately. But my recollection was that it was routine contamination surveys, not just incidents.

CHAIRMAN SCHOFIELD: Okay.

DR. NETON: I'm trying to recall. They had a limit that they considered to be, you know, their maximum allowable surface contamination levels. And then they would clean up as they saw things go above that, to my recollection.

MR. BARTON: If I could make a comment here? This is Bob Barton with SC&A. This kind of goes along with John Mauro's first comment. To do a completeness analysis it doesn't necessarily -- the actual model doesn't necessarily have to be perfect.

Because as Jim Neton said, we're not going to go out and get any more data. The data's not going to change. So if we kind of wanted to move this along quickly, we could

review the model solely on its base data, and not look at assumptions like the resuspension factor and all that stuff that can be discussed and, you know, done later on down the line.

But we can just take a look and see are the gaps in the data, you know, is there a reason to think that if there are gaps that these might have had significantly higher results, or anything like that.

So, I mean, we could still almost work in tandem, where NIOSH is revising the implementation of the model, where we just, SC&A just solely looks at the data from a completeness perspective.

DR. NETON: I'm totally okay with that. This is Jim Neton.

MR. STIVER: Yes. This is John Stiver. I was hoping somebody would say that and save me the trouble of having to do it.

DR. NETON: And it's something that you would have been doing anyways. And

you're right. There are two compartmentalized pieces of work. I mean, neither one relies on the other one for completion. So yes, I think it makes sense to me.

MR. STIVER: Okay, Ted. So then I would take the lead to have the okay to go ahead and proceed with a completeness analysis.

MR. KATZ: Yes. Thanks, John. And then, Jim, if you would just, at whatever point you sort out how long it will take you, a rough guess for when you'll be done with considering the application of the mode or the design of it. If you just send it out to the whole Work Group so they know timing for that, that would be great.

DR. NETON: Yes. I'll do that.

MR. KATZ: And then when we have that in hand, John, you can then take it up as, and look at the final product from NIOSH. Okay?

MR. STIVER: Right.

MR. KATZ: Okay.

MR. STIVER: I guess we can move on to Issue 3. This has been resolved. This was a matter of removing some verbiage regarding plutonium in the TBD-5.

Issue Number 4, revisit discussions that resulted from our White Paper review of plutonium bioassay data. And this is really to confirm that they were essentially all null results.

And this is another thing that kind of, we were able to get a much better understanding of at the interviews. We happened to interview a particular individual who was very knowledgeable in destructive testing of RTGs, including quite a bit of classified information about that.

And he was able to indicate that there is a handful of people, probably less than ten, the crew from the RADs health and safety and then his group, who would have had by far the highest exposure potential to

plutonium of anybody in that whole site for any period of time.

And there were him and one of the other interviewees indicated that they could get that data for us, the bioassay data. And then we would be able to take a look at that.

And then that would provide the confirmation that indeed we can put this to rest. And so we would like to follow through on that and get that data, and then take a look at it.

MR. DARNELL: John, this is Pete Darnell. I'm looking at my notes right now from this set of interviews. And what I had written down is that they didn't actually destructively test the Pu source. They did destructive testing on the RTG, but not the Pu.

MR. STIVER: Okay. Well my understanding and in my notes was that they actually did destructively test when the source was intact. And then that would be

something that we would want to follow through on and to get confirmation from the interviewee.

But in any case, I think that we should follow up on that and see if we can get a hold of that data. Certainly, if we can identify that this is a subset of highest exposure potential, that's going to pretty much put this one to rest.

MEMBER CLAWSON: So John, this is Brad Clawson. We don't have that data yet? They were going to provide it to you?

MR. STIVER: No. We don't have it yet. In light of what Peter just said, the fact that we have conflicting notes, I think we should get confirmation from that interviewee regarding this.

This is going to be a classified thing. Then go into how we might think about doing that in a reasonable amount of time.

MEMBER CLAWSON: Well, when we were at Sandia we talked to an individual

there too who was talking about the non-destructive process and the destructive process for some of those. Yes, so that would be very good.

I was just wondering where all are we going to be able to get this information? Is it going to be readily accessible? Or this going to be a Easter egg hunt?

MR. STIVER: According to the two interviewees, it was readily available.

MEMBER CLAWSON: Okay.

MR. STIVER: Okay.

MEMBER CLAWSON: Thank you.

CHAIRMAN SCHOFIELD: John, this is Phil. I'm going by memory on some of the interview stuff. But if I remember right, the RTGs were not actually penetrated. If they were, that's a new ball game there.

MR. STIVER: Yes. Okay. Well, I think we're going to have to follow up with that interviewee, and get that one.

MR. ZEITOUN: John, this is Abe.

I remember this question was asked, as you recall, Phil and I. And nobody confirmed any of that stuff. So I think we are -- it's a benign issue right now.

MR. STIVER: Okay.

MR. ZEITOUN: I think.

MR. STIVER: Okay. I would still feel a lot more comfortable if we could get confirmation from that particular person.

MR. ZEITOUN: Sure, sure. I am just saying I think that question was raised. But --

MR. STIVER: Okay.

MR. ZEITOUN: We have limited people as I recall, anyway.

MR. KATZ: I'm sorry. But can you just clarify, John, what is the path forward exactly for --

MR. STIVER: I think the path forward at this point is to obtain clarification from that particular interviewee --

MR. KATZ: Right.

MR. STIVER: -- as to whether there was ever a breach of the source during the testing.

MR. KATZ: But, so, I mean, my understanding was that you had these interviews, you documented them, and you've already sent this information back to get sort of approval the people you interviewed that you've captured the information correctly. Isn't that where we are with this process? Or is this --

MR. STIVER: We are. So it's going to be a matter of -- And I don't know how long it's going to take to have that go back through DOE again, and then go out to the interviewee. So it could be a couple of months down the road.

MR. KATZ: Okay. But -- I'm just trying to be clear. So we don't actually have to go back and interview anyone again? That information is captured in those notes. It's

just that those notes are in the classified review process. Is that correct?

MR. STIVER: Correct.

MR. KATZ: Okay. All right. Thanks.

MR. DARNELL: No, that's not correct.

MR. KATZ: Oh.

MR. DARNELL: This is Pete Darnell. The notes have been reviewed by DOE. The redacted notes have been returned. The classification process has already taken place.

We have our notes from the interviews that we're allowed to have and that we are allowed to talk about. Classified stuff that's already been classified and taken over by DOE.

MR. KATZ: Okay, then. So the question then on the table is do people have to be -- is this information captured in the information that we received back from DOE,

cleared and redacted? Or does someone need to go back into classified information to sort out the question that's on the table?

MR. DARNELL: According to the information I have from Mr. Vernon, it's been cleared and redacted.

MR. KATZ: My question is: the question that you guys just discussed, is it resolved in the information that was cleared and returned to you? Or do you have to go back, either interview this person, or go back to classified information to sort out the question that is being discussed here?

MR. STIVER: I think, Ted, that this is going to have to be a follow-up. I think we're going to have to go back. Because it's not clear to me that that was indeed the case. That there was any actual confirmation that that wasn't a source of exposure.

MR. DARNELL: I specifically asked that question, have it on my notes. I can tell you the person's name and the time I

asked the question about RTG failure analysis.

Tests were conducted and the plutonium source removed. Failure analyzed to find out why it failed. I asked that question specifically of [identifying information redacted].

MR. STIVER: Okay. I was talking about [identifying information redacted].

MR. DARNELL: Those notes have been -- my notes on that have been redacted. And the DOE has control of those, because they were classified.

MR. KATZ: Hey, John --

MR. STIVER: Those are the people who are actually involved in the testing. And to my knowledge, and what I wrote, and my somewhat kind of less than perfect memory of the whole situation --

MS. LIN: John and Pete --

MR. STIVER: They did actually test those, destructively test them with the sources intact.

MS. LIN: Hi, this is Jenny with OGC. Can you please refrain from mentioning the individuals' names in this conversation?

MR. DARNELL: Yes, of course. Sorry about that. I will say this, my recollection of the conversation is agreeing with you that the sources were intact, okay.

The sources themselves were not subject to failure testing, okay. And this is the key point. The RTG itself was failure-tested. The source itself was not failure-tested.

You have a triple encapsulated source that was brought to the site clean, as we have documentation of. Remained at the site clean from -- by "clean" I mean free from radioactive contamination.

So what we have is an external exposure potential, period. There was no destructive testing of the plutonium source itself.

MR. STIVER: Okay, Peter. I'm kind

of losing my voice here. But I see where you're going with this. My concern was that they were, when the RTGs were destructively tested there was a possibility that there could have been a breach in the source, in the heat source itself.

MR. DARNELL: Was it --

MR. STIVER: I'm saying that you have evidently more detailed recollection that that did not happen.

MR. DARNELL: Well, you see, the other thing that I have also is the survey records and documentation of the site. We don't have a survey documenting plutonium contamination.

We don't have bioassays that would show a chronic exposure to plutonium. We were told during the classified interview how those testings were done, and the protective clothing that the personnel were wearing, and what the method that was used for containment.

MR. STIVER: Okay. Well, you

know, to close the loop on this, if we could get the bioassay for those individuals that would certainly put an end to it.

And we can say for absolute sure, these are the people who were involved in this process. There is no indication of an intake whatsoever among these people, then we can close this issue out.

MR. GLECKLER: This is Brian Gleckler. I believe we have all the bioassay data captured for the plutonium bioassay. And it should be referenced in the TBD.

MR. STIVER: Do you have it reference by name?

MR. DARNELL: The entire basis for removing the plutonium bioassay information from the TBD was that there was no positive bioassay ever seen on the site for plutonium. Also, the backup was the contamination surveys.

And the backup was the transportation surveys. And the backup was

Phil Schofield telling us how Mound shipped them to Pinellas. You know, it's in the SRDB now. There's a table --

MR. STIVER: if we have the bioassay data for those individuals and it's also negative, then I think we can close this issue out.

MR. GLECKLER: It may not be referenced in the TBD anymore, because we took out all, a lot of the Pu stuff.

MR. STIVER: But if we have it in the SRDB, the two individuals I'm thinking about indicated that they could add that data set, which led me to believe that was not already in the data set.

CHAIRMAN SCHOFIELD: Yes, this is Phil. I think we do need to definitely clarify whether there were any positive results or not.

I'm kind of like Pete and John, my memory seems a little rusty there. But at the same time, I do not remember them stating that

they had any breaches.

MR. STIVER: I didn't remember them stating that either. And it's just there was never a positive statement that there wasn't a breach either.

CHAIRMAN SCHOFIELD: Right.

MR. STIVER: So yes, if we can look at the bioassay data from the handful of individuals, do we dare say -- you know, if they're in the system and they're negative, then there's no problem.

My only concern was that it appeared to me from the interview that there was additional data that had not been added into the SRDB yet. That may or may not be true. But I think it would behoove us to at least follow this down.

MR. DARNELL: John, this is Pete. You also have to remember who we were talking to. You have one subset of people that we interviewed that were, had the classified clearances, were part of the work, and

understood the process that was going on.

Then you had another subset of individuals who were not part of the process, had not been brought in on the classified information, and did not understand what was going on with these processes.

You cannot take someone who does not understand the process that, as it's going on behind locked doors in a classified and controlled manner, and take what they have as saying there's no data, or not all the data was there. And that's what you're doing.

MR. STIVER: Peter, I understand 100 percent what you're saying. But the individual I'm thinking of, without saying his name, was certainly probably the most knowledgeable one of the entire staff on the RTG side. I think you know who I'm talking about.

MR. ZEITOUN: This is Abe. I have the same recollection as John, that there are -- I got the impression after I left that

there are additional data available.

And that's part of the thing. And I remember we discussed that. And my impression is the same as John's. So we need to close that loop I think.

MR. STIVER: Yes. I think we can probably seek that off line, and track it down. Again that data, it was not new data. And it's already treating this thing, then the issue goes away. If it isn't we need to verify it. That's all I'm really looking for here.

MR. ZEITOUN: Yes.

MR. DARNELL: I mean, what I'm looking at is what the health physicist that we interviewed talked about. And he does not back up your recollection of what this other man talked about as far as plutonium bioassay not being there.

You know, if you want to look for more, by all means. But I don't believe that as far as this issue goes, that there is more

to find. I think if we just keep on chasing ifs and maybes, we're going to waste a lot of time with doing that.

MR. STIVER: Okay. We may very well be chasing smoke here. But I would certainly like to close the loop on that. I don't think it would take that much effort on our part.

MR. DARNELL: Before we go further, would you please review your notes for the health physicist, okay?

MR. STIVER: You're talking about the guy we talked to on the telephone interview? Or the other one?

MR. DARNELL: Yes.

MR. STIVER: Okay.

MR. DARNELL: He was very -- I asked very specific questions to him regarding the RTG testing. And if there were anybody that were in the know for the bioassay and the radiological controls, it would be him, okay. And in both cases he answered negatively to

what you're saying that we need --

MR. STIVER: I will go back through and I guess Abe, and Peter and I can take this up off the record, if that's okay with you, Ted.

MR. KATZ: Oh, no. That's absolutely fine. Why don't you -- clearly you need to have resolution in your mind, John, about this. And following up with them off line is perfectly fine. Okay.

MR. DARNELL: John, may I ask that you please get in touch with me today, or at the latest tomorrow. I have personal considerations. I'm going to be out for the rest of the year after tomorrow.

MR. STIVER: Okay. I will do.

MR. DARNELL: Thank you.

MR. STIVER: All right. I can go for a little bit longer here. Next is Issue Number 5. And this was the performance characteristics in the TBD-6 for the film badge dosimeters.

We did a review of that. This Attachment 2 highlights our findings in there. And those of you who have that open, it starts on Page 7. And we really kept it down to, in Table 6-5, well let's see -- I have mine right here.

This is the original version, used .02 rem as the MDA for the Landauer film. Table 6-9, which is the most current version, uses .01 for the limit of detection.

We, the only issue we had in this aspect of it was that we felt in the energy photon environment, the LOD of 0.02 rem was probably more appropriate and claimant-favorable. We also noted that in our review of the INL Site Profile, came to the same conclusion.

And so we also note in pre-1974 film batch dosimetry reviews are fairly claimant favorable LOD of .04 rem. But for a non-Landauer it's being recommended that -- Or excuse me, for non-Landauer film the 40

mrem is being recommended, but not for Landauer.

So that was our only concern, that we would recommend that the value in Table 6-9 be changed from .01 to .02. Everything else we found was reasonable and claimant-favorable.

MR. GLECKLER: This is Brian Gleckler. What's the basis for the recommended LOD that you, your Landauer --

MR. STIVER: Well the only thing we can find is that there -- well this is speculation at this point. But there was broad brush type claim by Landauer that they could reach a detection limit of ten millirem in their older dosimetry reports and client literature.

But when the other film goes in there that was in that era, ten rem would have been a pretty unthinkable feat to achieve. Because, you'd have issues of background fogging, processing changes, the precision, or

I guess the granularity of the, what on that corresponds to how many --

You know, a feel for the high energy photons for those reasons that we've enumerated there in the attachment to the -- it would probably be more realistic, and more claimant favorable to go back to .02, as to .01.

MR. GLECKLER: That's for high energy photons?

MR. STIVER: Yes. The type that we would be dealing with in this situation.

MR. GLECKLER: Yes. For the neutron generator testing though, those were X-rays. So those more likely would be low energy photons. We do use the 30 to 250 keV photon energy distribution though.

MR. STIVER: Yes. And, you know, based on the distribution that you'd be using --

MR. GLECKLER: Yes. MR. STIVER: -- that would probably be more

appropriate for that film type. John Mauro, are you still on the line?

MR. DARNELL: Hey, John, this is Pete Darnell.

MR. STIVER: Yes.

MR. DARNELL: Are you speaking specifically to the photographic film? Or to Landauer type G, B or --

MR. STIVER: That -- Let me pull up the -- Yes, Table 6.9 here, on I believe Page 31. It's probably the 1974 in July, and up through 1990. And you can see --

MR. DARNELL: Okay, it's not the dosimeter now, the film.

MR. STIVER: Yes, this particular dosimeter.

MR. DARNELL: Brian, do we have any further information on why we chose .01?

MR. STIVER: I guess because we didn't fill this in, there's a reason for that. And maybe it's a legitimate reason.

MR. GLECKLER: I'm not familiar

with the basis for that, other than it was in the original TBD, which I wasn't the original author on. So I just maintained those values.

But from what I remember, I've looked at Landauer stuff for other sites to come up with approaches using, you know, track down LODs.

And it looks like they used what we've used for other sites if you go into the Landauer literature, which is mostly like the fronts and the backs of the dosimetry reports, or dosimeter results reports.

They'll usually have the LOD value listed. And it's like, I'm pretty sure that's what they list for those dosimeters. So it's just a --

MR. STIVER: Okay.

MR. GLECKLER: It's an issue. If you guys don't --

MR. STIVER: If you can get back to us on what the basis was, you know. I think we could probably put that one to rest

pretty quickly.

MR. DARNELL: If the Landaer LOD is basis for this, we can put it to bed. Is that what you're saying?

MR. STIVER: Yes. If we could get the basis for that. And if we didn't agree that once we hear your explanation as to why. And then we can either make a change or let it go as is. We're getting all kinds of a paper trail and, you know, the historic basis for why things were done the way they were.

MR. DARNELL: Brian, can you get that together?

MR. GLECKLER: Yes, I believe so. And then I think I've got a collection of stuff on that.

MR. STIVER: Okay. All right. In that case we can move on. Okay, Issue 6. This is the whole issue of D&D monitoring. And this is another one --

The idea being was, you know, groups and things, the contract employees or

other workers during the D&D period who were not adequately monitored and may have had exposure potential by virtue of breaking in the, you know, previously contained sources, such as the contaminated glove box.

Or say, got to work and may have accumulated particulates or various forms of organically bound tritium and so forth over time.

Were these people adequately protected and monitored? And the same HP that Peter referred to earlier gave us a lot of good information on this.

And he indicated that basically all the contract employees were monitored by Pinellas RadSafe, before, during and after the D&D operations. And that the data and electronic records were sent to DOE Albuquerque.

And the SDAR has management and they have copies of the released surveys as well. So we would like to follow up with

[identifying information redacted] and see if we can get those confirmatory data, so that we can close this one out.

And I think, based on what he told us, it sounds like they had a very robust program in place. So that certainly puts my mind at ease. However, I would sure like to see the results. It looks like they are available.

MR. DARNELL: And one thing I'd like to point out, John, Pete Darnell again. One thing I'd like to point out is that Brian and I discussed D&D a little bit Friday.

The doses that we do have in house already were reduced drastically from the already low doses that we had during Pinellas Plant operation.

And basically what we're doing is continuing the coworker model through D&D. But we'll be glad to go ahead and look for any other records. I think we've already sent to Albuquerque looking for records.

MR. STIVER: Okay. Maybe we could coordinate with you then. And see if we can get back in touch with [identifying information redacted]. He could let us know if there are additional records out there that we could look at. My sense is that you're entirely correct that the doses are going to be a very small fraction of that coworker dose.

MR. DARNELL: Yes.

MR. STIVER: But, you know, just kind of confirmatory -- I'm sure that's what would really satisfy us, I think.

MR. DARNELL: Okay. Well I'll check on Albuquerque requests and make sure that we have received everything. I doubt the health physicist himself will be able to help us. Because he's not the records custodian

MR. STIVER: Yes. If he can at least point us to the right person, you know, give --

MR. DARNELL: Yes. He actually

did in our interview. He gave us a contact name at Albuquerque. And I'll get something started on that.

MR. STIVER: Okay. That sounds good.

MR. DARNELL: And we can get Mauro to double check on those records.

MR. STIVER: All right. Thank you very much. Issue 7. This is to review Level 1 of TBD-3, which was not available at the time, as of October of last year. I believe it was published or posted a day or two after that meeting.

And we did, in fact, review that document. And we found that it answered all of our concerns for findings ten through 12. And, you know, Sub-Issue 1, I believe it was. So we are on board with NIOSH. We think that that issue can be closed out.

I'd talk more about it. But I think I'm about to completely lose my voice here. So that's really where we stand at this

point. If anybody else would like to weigh in on that, or have any objections.

I don't see that there really would be. But I guess we can just proceed with the, doing taskings that we come through with today. If you all want -- did you have anything else you wanted to say?

CHAIRMAN SCHOFIELD: Not on that one. I mean, I agree. Let's go ahead and close it out.

MR. STIVER: Okay.

CHAIRMAN SCHOFIELD: And I was just kind of looking at, to go back to Brad's question, roughly how long any of this -- Well mostly just confirmation of what we already have, one way or the other, clarification or confirmation.

Are we looking at two months, three months down the road? Or, I realize especially with all the holidays coming up we may be pushed back a little farther. Anybody have any thoughts?

MR. KATZ: Well, so this is Ted. Let's ask Bob -- I mean, we have two tasks. One, I mean, Jim Neton's going to get back to us with a time frame for his follow up. But Bob Barton, could you let us know, how long will it take you to look at the data for completeness?

MR. BARTON: It's difficult to say, Ted, until I can kind of really take a look at what we're dealing with here. I mean, I can get an estimate out in a couple of days. But offhand I can't really throw a number out there without actually seeing what it is we'd be dealing with.

MR. KATZ: That's fine, Bob. I just -- so if you will, just as we're going to wait for Jim to let us know a time frame, if you would just, when you figure that out, sorted that out, if you would send to the Work Group your estimate of roughly when.

Obviously we don't need a day, or even exactly a week. But roughly when you

think SC&A can have a report out, cleared and back to the Work Group, that would be great.

MR. BARTON: That's not a problem, Ted.

MR. KATZ: Thank you. So I think we probably cannot schedule the next Work Group meeting until we hear back, and sort of know what time frame we're dealing with.

MR. STIVER: Yes. That sounds reasonable to me.

MEMBER CLAWSON: John, this is Brad Clawson again. But you're going to run this one -- about the destructive testing of these?

MR. STIVER: Yes. Peter and I and Abe are going to talk about this.

MEMBER CLAWSON: Okay. The reason being is because when we went through Sandia and stuff, they talked about the same process coming up through from Pinellas.

And when we interviewed people at Sandia there was a little bit different

interpretation. I just want to make sure that we get this right as we proceed forward.

MR. KATZ: Right. I agree, Brad. And this is Ted again. So just, if we could, once you've had your discussion off line with Pete and others, and you sort of know what the course is forward for that, whether it's put to bed, or whether there's more to do, and what that might be.

Again, here, if you could just shoot a note to the whole Work Group to let them know what to expect there, that would be great.

MR. STIVER: Okay. Will do.

MEMBER CLAWSON: Also too, John, you'll probably find out that this is a classified matter too.

MR. STIVER: I know it is.

MEMBER CLAWSON: Just for -- Okay. I just wanted to make sure that we kept that understood.

MR. KATZ: All right. This will

be a -- what ever is noted, shot to the Work Group, will be discreet and appropriate, I'm sure.

MR. STIVER: Okay. I guess that's really all I had to talk about here. I think we -- the big issue was really working through the Mound tritides, the paper and it's applicability.

CHAIRMAN SCHOFIELD: One think I'd like to throw back out is, I don't remember off hand, and from looking I might have missed it. Is looking for any positive bioassay for the plutonium.

MR. DARNELL: We've actually already addressed that with a White Paper. It's been out for a number of years. We can re-send that.

CHAIRMAN SCHOFIELD: Yes, if you'd re-send it.

MR. DARNELL: There was no positive bioassay.

CHAIRMAN SCHOFIELD: Okay. That

was my thinking. But I just wanted to make sure that that clarification is, you know, stated out there.

Since you've gotten more documents since the White Paper came out, I just wanted to make sure nothing had changed, nothing new had come up on that.

MEMBER CLAWSON: Pete, this is Brad Clawson. But they weren't checking for plutonium, right?

MR. DARNELL: Yes, they were.

MEMBER CLAWSON: Okay. I just wanted to make sure.

MR. GLECKLER: This is Brian Gleckler. Just as a correction. Some of those plutonium bioassay samples were positive. But he White Paper addresses that. Most of the positives were the baselines before they went into the area.

MR. STIVER: Right. Brad, this is John. I remember reading that.

MR. GLECKLER: Yes. And then a

number of them were also positive for Pu-239, and not Pu-238, which these sources were dominated by Pu-238.

MR. STIVER: You normally don't see 239 without 238.

MR. GLECKLER: Yes. But the White Paper addresses that.

MR. DARNELL: I should have been more specific in saying there were no operational positive bioassays.

MR. STIVER: If you could send that to me, because I don't know if I still have the old version of it.

MR. KATZ: This is Ted. Right. If we could just redistribute that to the Work Group that would be great.

MR. DARNELL: Okay.

MR. KATZ: Thank you, Pete.

MR. DARNELL: Not a problem.

MR. STIVER: Okay, Peter I'll probably try to call you tomorrow. Because I don't think I can talk today anymore.

MR. DARNELL: Okay.

MR. STIVER: All right.

MR. DARNELL: I just have to email you with my phone number.

CHAIRMAN SCHOFIELD: Anybody else have any concerns that we need to be addressed at this time? If not, I think we are adjourned.

MR. STIVER: Okay.

MS. HAND: Can I have a chance to speak? This is Donna Hand.

CHAIRMAN SCHOFIELD: Go ahead.

MS. HAND: Okay. The RTGs that they're talking about, in a 1990 annual report they showed that there was plutonium. They have measured plutonium. And then you talking about the positive bioassays.

That was talked about in the very first Work Group meeting. Everything where Glecker kept on saying that, well the background was positive. And then everything from then on was left.

When was that background taken? Because the RTGs was first put in Building 100 in a area around 126. Then when they built on to 400 and making it larger, then it was taken to Building 400. So was that baseline? Or was it when it was in Building 100?

You know, the very first report that John Mauro kept on saying is that the integrity of the data. You don't have the information. Everything before 1980 you do not have.

I had did a Freedom of Information Act request on the actual data that was used for this dose reconstruction. And the information that I obtained through that Freedom of Information Act is absolutely opposite of what the Site Profile is.

And the film badges were shipped out to be read. They weren't read in the beginning, in house. Because they had questions on it fogging. You have two or three memos in the original Site Profile

talking about the badges problem.

So the, and the actual workers that worked with the RTGs, that tested them, inform me that there were two. And then I said, you can't tell me any more.

So, and you're using the HP [identifying information redacted], his report for the decommissioning and dismantling report that you have to use to document, does not have any dosimetry information on it, does not have any air monitoring on it, does not have any survey swipes on it.

And right now DOE is going through 47,000 pages of documentation to make sure it's not classified, to give it to me under the Freedom of Information Act. And I still have not received those.

So the information that you've been receiving, and it's been stating, and the redacting, it's hurting these Pinellas Plant workers whenever they're being treated differently from everybody else.

And the original Work Group committee, Peter Darnell admitted that before 1982 the average was 500. After 1982 through 1993 it was 550 millirems. That was the coworker dose, that was the dose. But yet he gives everybody 100, you know.

So you're not using the 95th percentile. And again, at the December meeting I gave Dr. Neton, and also Dr. Mauro a copy of a gentleman's file that worked with the RTGs, that showed where he was monitored.

And he did receive doses. But he didn't have a cancer, so you all guys didn't get that data. And that is no fair on the references where I requested, you know, what did you use.

In another claimant's file, in her file this health physicist reports, saying that in 1959 there was 500, over 500 bioassays taken. And 149 of them was tritium. This was in her individual file. It was not put into the Pinellas Plant overall Site Profile.

You also have a situation to where we have, what, five metal tritides. And one of them are classified. So how are you going to do that one? Because they had scandium, they had titanium, they had erbium.

Erbium went to Dr. Chew for his study. And that came from Pinellas, and he did a study on that one. And then you had the uranium, which was the majority of it, and then the classified one.

MR. KATZ: Donna, this is Ted Katz. Can I make a suggestion here? Because you've sort of, you're speaking about just a whole host of different issues, which make it practically impossible for folks to respond to you.

I mean, I'd suggest if you want the Work Group to, you know, provide a response, or staff to the Work Group, whether it's at DCAS or SC&A, to provide responses to these, it would be best if you put these things in writing and distribute them for,

before the next Work Group meeting. And people, they could go down a list and actually give you responses if you want it on line. I mean, you know --

MS. HAND: I don't --

MR. KATZ: But it's very difficult to respond to all these different matters that are disconnected in one go --

MS. HAND: Well I disagree about being disconnected. You all talked about the RTGs, you talked about the plutonium. You're taking that dose off. But yet, there was finger badges and wrist badges that had doses on them.

So you got to make sure they get the external dose from the RTGs. Because the reports that I saw had dosimetry records showing that there was radiation there, you know. And they've got it. So is that going to go the external, and added on to the external for these people?

And the neutron dose you don't

even use it at all to any of the claimants hardly. And you've got, the whole thing is, is that this has been going on since April of 2008. That's when the Board was requested.

You requested back before, I think in 2011, March of 2011. Darnell was asked to, can you or can you not do the internal dose for Pinellas Plant. And instead of him answering that, he comes back with a whole brand new Site Profile that deleted all the information.

He was very much aware of the 1997 baseline report which shows 28 radionuclides at the Pinellas Plant. But they're all completely ignored.

MR. DARNELL: Ms. Hand, this is Peter Darnell. I know from past experience that we've addressed the 28 nuclide issue with you several times in writing.

MS. HAND: No, sir. You've ignored them. In fact, you said -- but that's a different issue, and that's not for you.

This is what I'll write up for the Board.

Because even in the very first Work Group committee Peter Darnell said, we can't believe anything that the Pinellas Plant workers say because they don't, they make mistakes. Larry Elliott says, oh that was a clean plant. There's nothing there. So you already had a biased opinion in 2009.

CHAIRMAN SCHOFIELD: I'm going to throw out something here. I mean, I do have to agree with both SC&A and NIOSH that as far as positive bioassay for plutonium, given the nature of RTGs you're going to see a positive result for 239, you're going to see a positive result for 238. That's just a given, given what an RTG, what they are.

MR. DARNELL: Absolutely correct.

MEMBER CLAWSON: Donna, this is Brad Clawson from the Board. What Ted told you is absolutely true. Because I'd like to be able to look at each one of these comments that you have --

MS. HAND: Thank you.

MEMBER CLAWSON: -- and make sure that we have addressed this properly to you. But I'll tell you right now, I'm going back through all this.

If you can write it up so that we can follow up on this, especially the Work Group, in a setting where we can have the discussion back and forth, I would appreciate it. Because I would like to make sure that this is done right too.

MS. HAND: Thank you. I will do that. Because I'm reviewing all the way from the very day one, the very first agenda where Preston says, okay guys, you can't talk about this anymore.

CHAIRMAN SCHOFIELD: Well we might have to have some of these discussions in a classified setting. I mean, that's something that we will have to address.

MS. HAND: And that's fine. But the thing is, if it's classified, you know, I

just want to make sure that the claimants, that the Pinellas Plant workers get the equal justice that all the other sites have gotten.

MR. KATZ: Right. Donna, this is Ted. And so again, I mean, clearly if there's classified things those can't be discussed. But whatever questions you may have, you're not dealing with classified information yourself. And they can be responded to you I some sort of general way, without broaching classified information.

So again, if you would provide this in writing. And the further in advance of a meeting that you provide this, your set of questions, the better prepared everybody can be to answer them as part of that Work Group meeting, okay.

MS. HAND: Will do. Thank you.

MR. DARNELL: Ted, I have one quick question.

MR. KATZ: Yes.

MR. DARNELL: Could we, NIOSH has

responded to Ms. Hand quite often. Would the Board like to see those responses?

CHAIRMAN SCHOFIELD: Yes, please.

MR. KATZ: Right. I mean, Pete, so I think again, the path forward though, I think once we have Donna's questions in hand, in writing, I think that would be perfectly appropriate, Pete, for you to just submit to the rest of the Work Group those responses that you already have made to some of these issues.

Then the Work Group doesn't have to spend a lot of time with that. Although if there's gaps, if there's issues that haven't been addressed, those are the ones that the Work Group can run over in the meeting.

MS. HAND: I'd also like to note, and I will also be sending you copies whereof the email that's sent to me, where Peter Darnell said he didn't have to use the Site Profile.

So the information in the Site

Profile he didn't have to use, nor does he have to use the DOE handbook. So the answers to my questions that they answered are just generalized questions. And --

MR. KATZ: Donna, what we really want from you is not a whole cart load of different things. But really, if you would just provide the questions, the technical questions, what have you, that you would like answers to.

Then, you know, Pete certainly has his records of what responses he's given before, as do others. And that all can be organized in a reasonable way.

MS. HAND: And I understand that. But his, but my thing is that his comment, everything about the way he's answered the things, he never signed any of the responses. So he can't, you know, so nobody's taking accountability of those responses.

MR. KATZ: But, Donna, I mean --

MS. HAND: And listen first,

please, okay. And then when I did the Special Exposure Cohort petition we didn't qualify. Because they're using those responses that they used on the close out interviews.

MR. KATZ: Okay, Donna, all that being said. Again, I'm just trying to be clear with you. What we would like from you is just the technical questions you would like answers to.

Everyone will pull together what responses have already been provided. And we'll address those that haven't in the meeting.

And really, issues of process and what people might have said, and so on, really isn't your main -- we're trying to just settle technical issues so that we can put to bed the TBD review that's being done by the --

MS. HAND: Agreed, agreed. I will give you technical issues with questions, and with the facts that I have to make sure that we're dealing with facts, and not, you know,

suspicions.

MR. KATZ: Okay. Thank you.

MS. HAND: Thank you.

MR. DARNELL: I have one more quick question for the group. I have Schofield, Clawson, Stiver, Zeitoun for distribution for the plutonium White Paper. Is there anybody else?

MEMBER POSTON: Yes. John Poston would like to see it. I thought we were going to send it to everybody.

MR. DARNELL: I can't hear you.

MR. KATZ: Yes. Mr. Poston is also a Member of the Work Group.

MR. DARNELL: Poston?

MR. KATZ: Yes. And if you would just copy me, Pete, that would be great. Because then if anybody is left out or anyone else needs it, I can send it on again, particularly since you'll be out after tomorrow.

MR. DARNELL: I actually don't

have Dr. Poston's email. So I'll have, if one of you will forward it to him.

MR. KATZ: I'll take care of that. Thanks, Pete.

MR. DARNELL: Okay.

CHAIRMAN SCHOFIELD: Just one last thing. This is really off the record and different subject. I was just going to tell Pete, good luck.

MR. DARNELL: Thank you. It's been quite a road. And it's going to be another quite a road. So I appreciate that, Phil.

MR. STIVER: And I'd like to second that, Peter. Best of luck.

MR. DARNELL: Thank you.

MR. KATZ: Okay. Then --

MEMBER CLAWSON: I was going to say all the best, Pete, but I was on mute. This is Brad. Good luck. I just got done with my game. So best of luck to you.

MR. DARNELL: Thanks. Thank you,

Brad. I appreciate it guy. So Abe and John, I'll talk to you tomorrow.

MR. STIVER: Okay. We'll do that.

MR. KATZ: Okay. Thank you everybody. And, Phil, I think we're adjourned.

CHAIRMAN SCHOFIELD: I totally agree with that, unless there's any last thing we need to open. If not, we're adjourned.

MR. KATZ: Thank you. Take care everybody. Have a good Thanksgiving.

CHAIRMAN SCHOFIELD: You too. Thanks a lot.

(Whereupon, the meeting in the above-entitled matter was adjourned at 12:14 p.m.)