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

+ + + + +

SUBCOMMITTEE ON DOSE RECONSTRUCTION REVIEW

+ + + + +

MONDAY
AUGUST 6, 2012

+ + + + +

The Work Group convened in the Paris Room of the Cincinnati Airport Marriott, 2395 Progress Drive, Hebron, Kentucky, at 8:30 a.m., Mark Griffon, Chairman, presiding.

PRESENT:

MARK GRIFFON, Chairman
BRADLEY P. CLAWSON, Member
DAVID KOTELCHUCK, Member
JAMES M. MELIUS, Member*
WANDA I. MUNN, Member
JOHN W. POSTON, SR., Member
DAVID B. RICHARDSON, Member*
PAUL L. ZIEMER, Member*

ALSO PRESENT:

TED KATZ, Designated Federal Official
KATHY BEHLING, SC&A*
GRADY CALHOUN, DCAS
DOUG FARVER, SC&A
STUART HINNEFELD, ORAU Team
JOHN MAURO, SC&A*
MICHAEL RAFKY, HHS*
BETH ROLFES, DCAS
MUTTY SHARFI, ORAU Team*
SCOTT SIEBERT, ORAU Team
JOHN STIVER, SC&A*

*Participating via telephone

TABLE OF CONTENTS

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

8:35 a.m.

MR. KATZ: This is NIOSH; this is the Advisory Board on Radiation and Worker Health, Dose Reconstruction Review Subcommittee. We will begin with roll call. And since this is the Subcommittee, we need to talk about conflict of interest as well, for the Board Members only. So as you register, one main component of this meeting, we're talking about Savannah River Site cases. If you have a conflict with Savannah River Site, please note that and that you will be recused from that discussion. We're talking about other cases, as well. So any of your major sites where you have conflicts, please note those as we go through the roll call.

So let's get started with Board Members in the room.

(Roll call.)

MR. KATZ: Okay then. The agenda for the meeting is posted on the website, as

is -- well, there may be some materials associated with this meeting. Most of the materials are Privacy Act-protected.

And let me just note for Board Members and staff, I circulated a document that Mark had forwarded me last night to all the staff, or most of the staff at least, and all the Board Members just this morning. So I sent them to your CDC account and your personal account in most cases. Brad, I may have missed you, so I'll forward it right now. It's your agenda.

CHAIRMAN GRIFFON: And that document that Ted sent out is for the 1 p.m. We have one thing that's sort of time-specific on the agenda today, which is the revisiting the Board's dose reconstruction case review process. And what Ted sent out was like sort of the original draft that we came up with, original procedure we came up with of sort of how to look at it. I think we have basic reviews, advanced reviews, blind reviews, it

outlines what we were thinking of back then, which, you know, it might have migrated a little from that, but at least it will give you a sense of where we started from. And that's time-sensitive, because Jim Melius and Paul Ziemer are going to phone in at 1:00 to join that discussion. So we're going to sort of keep that there.

Otherwise, Ted was helpful enough to help me put together the agenda. Actually, I think he did it. I don't even remember. But, you know, it's similar topics that we had on the last meeting's agenda and I think we can go right down these. I think one of the big topics this morning we're going to cover is probably Scott's presentation of the ORAU QA/QC program. But we can do these first two items first. Stu, is that okay, this order? I think they're both your sort of actions. We've asked you to report back to us on these.

MR. HINNEFELD: Yes, yes. Ray will be doing most of the -- he'll be doing --

CHAIRMAN GRIFFON: Oh, okay, yes. Sorry. So, update on DCAS blind dose reconstruction quality control review. David, I'm assuming, by the way, you have these materials. David Richardson?

MEMBER RICHARDSON: Yes, I'm pulling them up now.

CHAIRMAN GRIFFON: Okay, okay. So we're working from that agenda that was sent out?

MEMBER RICHARDSON: Yes, I have that.

CHAIRMAN GRIFFON: Alright. So, blind dose reconstruction quality control reviews.

MR. CALHOUN: Okay. Basically, it's just really a numbers update. As we talked about last time, we go through and pick a few each week, dose reconstructions to review. These are cases that have not been completed by ORAU yet, and we assign those to one of our guys. Once they come over from

ORAU, a third party reviews them and looks at what we've done versus what ORAU has done. Very few, if any, of these have gone through final adjudication yet through Department of Labor. So, basically, what I have here is we've got 57 that have been selected to this point. Twenty-one of those have been completed, ten are assigned to health physicists in DCAS, and twenty-six have not yet been assigned to our guys for review.

Some of the things that we continue to need to work on that we haven't done a whole lot on yet is, based on our last assessment, we believe that we could do a better job in determining, at least documenting why we made decision A versus decision B. So we need to get that out. We haven't done much on that yet. And that's basically where we are on the blind DRs.

CHAIRMAN GRIFFON: So when you say better job documenting decision-making process, or I'm paraphrasing, that's sort of

one of your preliminary findings from your --

MR. CALHOUN: Yes, we documented that in recommendations for improvement of program. So that's just something that we need to do.

CHAIRMAN GRIFFON: Okay.

MR. CALHOUN: And what that's really going to involve is just talking to the folks doing the reviews and saying, hey, you know, when we come back and look at this two weeks later, we really don't know why you chose A or B --

CHAIRMAN GRIFFON: Write down your work, show your work kind of thing that --

MR. CALHOUN: Yes, yes.

CHAIRMAN GRIFFON: -- we've said. Yes.

MEMBER CLAWSON: Well, I just want to clarify on this. That's the same thing that we've been saying. When you're talking about this, you're talking about why you use this process versus the other one, just

documenting better.

MR. CALHOUN: Right, right, right. And these aren't like a full-blown dose reconstruction. We showed these, at least a couple examples of these, I think it was at the last meeting. And, basically, our guys will go through and do a dose reconstruction, and, well, they don't write the report, but they'll come up with the numbers. And they just free-form write into an area what they did, and it could be clearer as to why they did it.

MEMBER CLAWSON: Right. And that's something that we have seen quite a bit of is: how did we get to that?

MR. KATZ: It just needs some clarification, though. I think you're talking about when you do the blind dose, because the people that you have doing the blind dose reconstruction are not showing their work --

MR. CALHOUN: Correct, correct.

MR. KATZ: It's not a criticism of

the ORAU original dose reconstruction that you're reviewing --

(Simultaneous speakers.)

MR. KATZ: -- your own review process. You were thinking the other.

MEMBER CLAWSON: So was I.

CHAIRMAN GRIFFON: And going back to the numbers then, you said that, the last time we talked, we talked about you were putting this stuff in a database of some sort and that we, the Board, could get access to that. Did you set that up or --

MR. CALHOUN: Right now I don't know that we can, because they're pre-decisional, they haven't gone through the final adjudication. And that's usually what we do when we do dose reconstructions that are reviewed. I believe when we ran that by our legal team that's what they said. Now, there's certainly a way that we can get you the, I guess the data sheets that we have. We haven't done that yet.

CHAIRMAN GRIFFON: What are the data sheets? What do you mean?

MR. CALHOUN: Those are our actual reviews.

CHAIRMAN GRIFFON: Oh, okay.

MR. CALHOUN: There's a form, of course, that we fill out for every one of them that goes through and says, you know, there's something on internal, there's something on external. That's the comparison of the two dose reconstructions, the ones completed by ORAU versus the ones completed in-house, because we have a third person that will look to compare the two after they're done.

CHAIRMAN GRIFFON: I guess I'm curious because we talked last time about being able to see at least the information in aggregate form. We didn't want to re-review each case, of course, you know, because we're selecting separately, but just to see this in aggregate form I think would be useful, like what have you found in terms of QA as you go

through, you know.

MR. CALHOUN: That would be easy to do.

MR. KATZ: Well, that's your reports, right?

MR. CALHOUN: Yes.

CHAIRMAN GRIFFON: Oh, that's the reports? That's not the data --

MR. CALHOUN: No, those are one-by-one. What would happen, what I would recommend is that every so often we just do another assessment, because that threw together all of them for you that were done to that point. And so we need to do that anyway to look at how our program is going, so maybe every whatever, ten cases, after the tenth case is complete we do an assessment of all those and then you can see --

CHAIRMAN GRIFFON: I was just under the impression that this was, you know, that you were putting it into some sort of database as you were going along.

MR. CALHOUN: It's not a data base. It's sheet by sheet.

CHAIRMAN GRIFFON: Okay. Sheet by sheet, yes, yes.

MEMBER RICHARDSON: Remind me, what number are you on now?

MR. CALHOUN: One.

CHAIRMAN GRIFFON: No, no, no --

MR. KATZ: How many cases have you --

MR. CALHOUN: Fifty-seven selected. Twenty-one completed, ten assigned, twenty-six selected for review but not yet assigned to a DCAS health physicist.

CHAIRMAN GRIFFON: And when you say 21 completed, that's by ORAU?

MR. CALHOUN: No, that is we have looked at it in our review. The third party has compared both of them, so it's done.

MEMBER RICHARDSON: So could we expect a report at 20, at 25? What number --

MR. CALHOUN: I'll make sure that

you get one for the next show, for the next meeting, okay?

MR. KATZ: Yes, I think ten would be good because that will be almost every meeting we'd have an update, right? That would be good, sort of periodicity.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: And then, just to be clear, those checklists or whatever it is that summarize, you'll make those become available somehow?

MR. CALHOUN: I think. Stu, do you remember what the discussion was on that?

MR. HINNEFELD: I don't recall exactly.

MR. CALHOUN: We looked into that, and I don't know -- I know that from a -- you can't access it through NOCTS, I don't believe. I don't know if you have rights to do that. We can't. I don't know if they can or not.

MR. HINNEFELD: See what? What

I'm looking at?

MR. CALHOUN: Yes.

MR. HINNEFELD: They don't have it.

CHAIRMAN GRIFFON: I think that's what --

MR. KATZ: I mean, anything can be made available if it's okay with OGC.

MR. CALHOUN: Right. If it's okay with them. We'll check on that.

MR. KATZ: You'll pursue that?

MR. CALHOUN: Yes.

MR. KATZ: Okay.

CHAIRMAN GRIFFON: Alright, I don't think there's much more to say on that. How about the second topic, items related to the NIOSH 10-year review? And does that include -- there was a cost assessment thing sent around, right? Is that one of the --

MR. KATZ: Yes, that's one of them.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: And I've re-circulated that or somehow reminded everybody where we got that. We got that from Stu back in the spring.

CHAIRMAN GRIFFON: Right.

MEMBER RICHARDSON: I'm sorry. I'm thinking a little bit about the blind dose reconstruction still.

CHAIRMAN GRIFFON: Okay.

MEMBER RICHARDSON: Maybe there's no opportunity right now to do more, but if we could take a little bit of time after seeing the report at the next meeting to think about, you know, how that report is structured and how we might be able to give some useful feedback for other things that would be, you know, that would fit in with all those discussions we had leading up to doing these blind dose reconstructions about, you know, quality assurance/quality control and trying to give some feedback to NIOSH about how best to use these. Because right now, you know,

one-by-one I think is a very kind of detail-focused, kind of granular approach to looking at those data, but there might be other ways of doing exploratory analysis to understand bigger, kind of the larger topography of the main issues.

So just to put that out there, because it sounds like it's moving ahead now; and, yet, we don't want it simply for the process, we want it for the results. And it's not quite clear how those results are going to be presented and analyzed and understood yet.

CHAIRMAN GRIFFON: Okay. Yes, that sounds good, David. I mean, I'll put that on here. And I think, yes, you know, we can't really speak to that much until we see at least the first cut. But I'll put it on that the Subcommittee can discuss that first report and whether we have comments on what it includes, how it can be used, et cetera. Okay.

MEMBER RICHARDSON: It's great.

Again, it's great that NIOSH is doing this.

CHAIRMAN GRIFFON: Yes.

MR. STIVER: This is John Stiver. I just got on the line.

MR. KATZ: Oh, welcome John.

CHAIRMAN GRIFFON: Why weren't you here, John?

(Laughter.)

MR. STIVER: There's a long story there, involving about a five-hour wait and then a cancellation and -- you don't want to know.

CHAIRMAN GRIFFON: No excuses.

MR. STIVER: Yes, I know. I thought about taking a train or a bus --

MR. KATZ: Greyhound's always --

CHAIRMAN GRIFFON: Bicycle. Okay. So I think we're on to our next item. The second item is the items related to NIOSH 10-year review. And if I'm reading this right, are the four things under that, are they sub-bullets?

MR. KATZ: Yes.

CHAIRMAN GRIFFON: Okay. It's a little confusing here. So we've got the four bullets under there, including the ORAU quality management system and the cost assessment, which we've got two separate deliverable products on. Before this meeting, everybody should have got those, right?

MR. KATZ: Two?

CHAIRMAN GRIFFON: Well, we've got something on the quality management system.

MR. KATZ: Oh, yes, all right. Two separate. Quality is one and cost is another document, right?

CHAIRMAN GRIFFON: Right. So I guess we can go with the QA management system first. And Scott Siebert has joined us and is going to present something on this.

MR. SIEBERT: I am. Now I'm waiting for my projector to warm up here real quick. Have I sufficiently impressed people? Can I take my jacket off?

MEMBER MUNN: Yes. Thank you for the show.

MEMBER POSTON: You forgot to turn around.

(Laughter.)

MR. SIEBERT: Oh, look at that. It's working.

MEMBER MUNN: Excellent.

MR. SIEBERT: Alright. These slides are just based upon the document that we sent out about a week or two ago that was actually outlining our QMS system. So there should be nothing new in here if you've had a chance to read over that document.

So as said, I am Scott Siebert, still senior health physicist with ORAU team. We're going to handle our quality management system, QMS. We based our QMS system on the ISO 9000 document, which is talking about the requirements. I'm going to break down the five requirements that are all right here: our documentation requirements; our competence,

awareness, and training; product realization; monitoring and measurement of product; analysis of data and information; and we're going to look at each piece of these separately.

Okay. So for our documentation requirements, we do control all our documents. We have a document control system. Everything is prepared, reviewed, approved, issued, used, and revised following our prescripted processes. We have documentation in place that describes that process, and that's actually tracked through that same process, which is interesting. So we actually have just hundreds and hundreds of documents that are through this system, and they all follow this specific requirement.

We also control our records. We show our results from our records from the definition from ISO 9001. Results that were achieved or evidence of activities performed and, obviously, legible, readily-identifiable,

and retrievable, unlike many of the records that we get to decipher from other parts of this project. Everything that we do ends up being electronic, so it's obviously easily tracked and retrievable or at least at the moment it's retrievable. Now, anybody who's tried to open up a Bernoulli drive recently or anything paper tape, we'll see what happens.

Competence, awareness, and training is the next section. And if I go through here too quick and you guys have any questions, by all means, just jump in. We have qualified personnel by our contract. It's a minimum of a bachelor's degree in a science that is related to dose reconstruction -- internal, external health physics, whatever -- or two years of professional experience. When somebody just meets the minimum, we have then what's called a dose reconstructor in training, and their work is reviewed by a senior qualified health physicist. Our contract just requires a health physicist, but

we actually make sure it's the senior people. And this is not, we don't consider the peer review acceptable to be this level of review. This is then in addition to the peer review process, so a senior health physicist reviews their work first and then it goes into peer review. So it's an additional step.

Training. The objective three, dose reconstruction, manager identifies all of our training in dose reconstruction. It includes all the NIOSH directives and over 125 other documents: OTIBs, TIBs, TBDs, Site Profiles, various procedures. As they also are updated, the training also has us re-review them and train on the latest version of them and to document all that, as well. It also includes a three- or four-day initial dose reconstructor training. We've squished it into three days before and found that that's really hard to do, so we've done it in four days generally.

In addition, as things come up, we

have, obviously, periodic staff meetings where we give out information. And as additional issues come up, if it's warranted, we'll have additional training sessions. A good example is when Super S plutonium, we finally got that up and running, that's a relatively complex issue, so a couple of us went around to all the area offices and we had a training session on Super S plutonium.

MEMBER MUNN: Scott, with respect to your enumerating the number of documents there that you've dealt with, we've had some problems in the other Subcommittee with respect to how documents are enumerated, what the headings, the numerical headings are that you put on them. Has ORAU been, have we discussed that with ORAU, and are we attempting to work out any glitches that we have with respect to whether this is an ORAUT or an ORAU or an OTIB? You know, we've had some problems with the numbering system --

MR. SIEBERT: Well, normally, I

guess the main problem that we've run into before, I believe, is OTIBs and TIBs. That's the main one --

MEMBER MUNN: That's one of it. And the other is the number of digits that we have in a numerical document.

MR. SIEBERT: Oh, whether it's 0001 or 001?

MEMBER MUNN: Whether it's 00 or 000, yes.

MR. SIEBERT: We haven't specifically discussed that issue that I'm aware of. The differences are the ORAU Team, we use four digits, and DCAS historically started with three digits. That's where the inconsistency between the digits came from. Also, the differences between OTIBs and TIBs, when you had an OCAS TIB and an ORAU TIB, we couldn't call them both OTIBs, we couldn't call them both TIBs. That's slowly being changed over as OCAS has been renamed to DCAS. If you'll notice, they're now becoming DTIBs,

because now they're DCAS Technical Information Bulletins.

MR. HINNEFELD: We should fix that and just go back to TIB.

MEMBER MUNN: Yes, you know, this is why I brought it up because, understanding it's not this Subcommittee's grief but it's one of the things that are a glitch we're going to have to work out, and it sounds to me as though ORAU itself doesn't have any problem with it. It's the combination of the --

MR. SIEBERT: It's the inconsistency between us, and we can work on that.

MEMBER MUNN: All right. We'll address that in the other Subcommittee. Sorry to insert that, but thank you.

MR. SIEBERT: That's fine. Anything you say is on topic, Wanda.

MR. FARVER: Scott, one question. How are the DR guides controlled?

MR. SIEBERT: The DR guides are

not part of our document control system, because we didn't want them to -- it's a rather inflexible system. As you know, it takes months oftentimes to get a document through our tracking system because it has all the various steps. In order to be a little more nimble with things of dose reconstruction, as we find things out and we determine we have guidance that needs to be issued, we'll use the guidance documents. They're kept on the server, so there's version control on the server. And the official version is the copy that always goes with the dose reconstruction report that's submitted along with it. So although it's not tracked as part of the document control system, a copy of it always goes with the dose reconstruction that it may modify, even if the guidance document wasn't used for that specific dose reconstruction. So that version will always be linked with that dose reconstruction for submittal purposes. And then as, say, the

Technical Basis Document, once that gets updated and includes that information, we'll remove that information from the guidance document.

MR. FARVER: But the dose reconstruction does not reference the DR guide?

MR. SIEBERT: Correct.

MR. FARVER: So there's no way of knowing what information was used in the dose reconstruction if there were modifications to the technical basis guidance? In other words, you could use a DR guide that has all sorts of changes in the Technical Basis Document, and the person reviewing your dose reconstruction would be unaware because --

MR. SIEBERT: Well, they'll specifically know where it's coming from. That's true because it's not a controlled, a document-controlled process so we can't reference it.

MR. FARVER: They would look at

the Technical Basis Documents and say this is what should be done according to the Technical Basis Document, and the DR would be done differently and --

MR. SIEBERT: In which case, then you'd look at the guidance document and say, oh, well, that's where that came from.

MR. FARVER: But they wouldn't know which document to look at because it's not referenced in the DR. In other words --

MR. SIEBERT: It would be the only guidance document that's submitted with the dose reconstruction.

MR. FARVER: That's true.

CHAIRMAN GRIFFON: And that's a recent change, by the way, right? I mean, it's in the last three or four years.

MR. SIEBERT: Well, yes.

CHAIRMAN GRIFFON: Okay, yes. Recent. Relative recent, yes.

MR. FARVER: Because if you're controlling the versions, and you would have a

title, you know, version number, it could be very easy to go back and look and see what information was used.

MR. SIEBERT: At present, we do not do that. Anything else?

CHAIRMAN GRIFFON: And the decision was just that the system was too inflexible. It wouldn't allow --

MR. SIEBERT: To move things quickly through the system --

CHAIRMAN GRIFFON: -- that modification.

MR. SIEBERT: Right. To avoid additional PERs over time.

CHAIRMAN GRIFFON: Right.

MR. SIEBERT: Or stopping production to get something into the document for, you know, a few months. We'd rather get the answers to the claimants in a timely manner. All right?

Product realization. That breaks into data entry, which I know -- and a lot of

this I know is repetitive from what we did last year. Last year was very much a hands-on, here's what we're doing and here's the processes. And I believe those of you who came to this last year saw the data process, data entry process actually being performed, which was good.

Our data entry, it's entered and supplied by the sites. We do internal and external and separate spreadsheets just because they're so very different. We have different groups in data entry actually doing those specific data entry functions. And all the data that we have that's entered is 100 percent audited. There was an additional, basically, peer review that does a line-by-line comparison for quality purposes. And once it passes that, that's when it gets posted for the dose reconstructors to use.

Any questions on that, the data entry portion? Okay.

Data and information. This is

everything else. All our known sources of data, the claimant exposure data, work data, Technical Basis Documents, procedures, telephone interviews, approved and validated electronic tools, all that information also is things that we produce in this project under the auspices of the 9001 process.

We also have ready access to more experienced dose reconstructors. And we're very collegial on our side of the fence. If somebody doesn't know something, we take it to somebody else and talk to the other dose reconstructors, especially the senior dose reconstructors, as well as the principal internal, external, medical, and AWE dosimetrists. They are all also available for questions. And if we have something that's a higher level that we need to, obviously, we work with our DCAS counterparts to get questions answered as well.

CHAIRMAN GRIFFON: Well, I have some broader questions, but just to go back on

the data entry. I'm looking at my little notes I made. I highlighted this sentence that says, "Mistakes are corrected as they are found, and no record of the errors is currently maintained." And I guess when I'm thinking about, you know, ISO 9001, continuous improvement, you know, how do you judge improvement if you're not tracking errors?

MR. SIEBERT: Well, you're right. It's not specifically tracked as such on a one-by-one basis. But that's where the rest of the sentence that goes along with it is: peer reviewers are instructed to alert supervision when they've seen consistent kinds of errors, and then the supervisor will take care of any issues up to and including, you know, training, re-training the individual, getting them online with what they're doing if they're making too many mistakes or obviously taking them off the project.

CHAIRMAN GRIFFON: Fix the worker. I've got my other hat on now for my other

job, but that sounds a lot like fix the worker instead of fixing the system. If you were tracking this and finding a lot of data entry errors, maybe it would be not necessarily one individual or --

MR. SIEBERT: Correct.

CHAIRMAN GRIFFON: -- not a disciplinary matter. It's more of a matter of, wait a second, we need to rethink how we're entering the data.

MR. SIEBERT: Right. Which, once again, would come under the supervisor. I guess you're right. I only said a portion of it. That's a good point. The supervisor, since there is a supervisor over data entry, they're aware of what's going on with all the portions of it and they would be aware if you're seeing consistent error across different data entry folks, as opposed to just one single one. Good point.

MEMBER KOTELCHUCK: But would the supervisor, would the supervisor know if an

individual had made an error if the individual did not report it? I'm worried about a person who is a data entry person who knows they're klutzy and they make mistakes, but they want to keep their job and they don't want to be disciplined, so they just don't report.

MR. SIEBERT: Well, there's a peer review who's reviewing their information. It's the peer reviewer who reports them to the supervisor to say, hey, we've got consistent errors.

MEMBER KOTELCHUCK: Okay. You have a peer reviewer.

MR. SIEBERT: Yes, there's an additional level of review.

MEMBER KOTELCHUCK: Okay.

MR. SIEBERT: Correct. That would go to the supervisor, and that's when they'd look for something that's a little more systemic.

MEMBER KOTELCHUCK: Okay.

MEMBER MUNN: Now, a truly

systemic error would be fairly obvious over a relatively short period of time.

MR. SIEBERT: Right.

MEMBER MUNN: If you're getting the same kind of error over and over again, certainly the same individual overseeing it would be well aware that this is a recurrent event.

MR. SIEBERT: An example we have run into in the past is we'd be having people enter, say, whole body count records and a new version of a form pops up into the records that we hadn't seen before, and people start -- maybe somebody tried to enter that data into the old form, as opposed to saying, hey, we've got a problem. We've seen that problem before, and we've come back to it and say, oh, well, we need to update the template to reflect there's an additional form that we need to do. So we have done that as such.

MEMBER CLAWSON: But this comes back to what I was talking about a little bit

earlier. We see at the tail-end of our reviews that we do, problems that arise, and then when we bring them forth they say, well, yes, we took care of that earlier, we saw this in the process and we've done something with that. But there's no trackable way back. And coming from the QA program, it's important to be able to see that if you're improving or if you're having more problems. There's got to be somewhat of a tracking system to track any of these issues that they're having over and over again. And I'm just wondering -- and I know your system is cumbersome and so forth, but to be able to actually see any kind of improvement or unimprovement, you've got to track it somehow. This is one of the things that I have problems with is when these come in and I hear, well, yes, we saw that problem, we think that we've got it pretty well taken care of. Myself, I'd like to be able to see how much of a problem it really is and if there's something different that needs to be

done or even the process that was done to correct it. That's kind of what I was hoping we would see a little bit of because it's hard to be able to measure anything if you don't have any data.

MR. SIEBERT: Right. And I see what you're saying. And I've made a couple of notes for the data entry manager to discuss that with them and see.

MEMBER CLAWSON: And I don't think it's just data entry. I think it's in all processes of your Quality Assurance Program. There should be some way to be able to look at all levels of problems that you have had to be able to see, you know, we've improved with this because it would really be better to be able to come to this group and be able to say, yes, we have seen this from this time period to this time period and we saw that. We implemented this program to correct it, and now it's down to this amount. That's kind of what I was looking at.

MR. SIEBERT: And you'll see some of that further on as we get into peer review, once we get into returns from DCAS, and things like that.

MEMBER CLAWSON: Okay.

MR. SIEBERT: So are we really done with data entry this time?

CHAIRMAN GRIFFON: I think so.

MR. SIEBERT: Alright. Additionally, the control of dose reconstruction templates. These are the Word templates that we have that are actually the dose reconstruction reports that all the data is imported from the tools into these reports. And it just provides a consistent quality product. These are all kept on the server. The most recent version of them is on the server. And I'm just looking from a note point of view. Okay, I didn't put it on the screen.

If you read over this, I did put an example in here. As I said, we have

periodic staff meetings. One of my group meetings, actually frequently in my group meetings, I will make the statement, "Always go up to the tools folder and get the latest tool and DR draft template. Always, any claims submitted without data tool or template will be returned by the peer reviewer," which, you know, we just keep reminding dose reconstructors to use the latest tool, use the latest template. And now that we're tracking, as you will see in a few minutes, now that we're tracking peer reviewer comments more closely, if that's an issue that we see consistently because people are not using the more recent one, that actually will come up and we'll start to see that.

MR. FARVER: And those templates, you import the individual's data into the template, and the templates will populate the table that talks about the energy fractions, correct? That all is populated by the macro or the template?

MR. SIEBERT: Correct. Right.

MR. FARVER: Okay. So the dose reconstructor doesn't have to enter that data?

MR. SIEBERT: Correct. They have to verify that it's what they actually use, but they don't have to keep going in and entering it over and over and over. And that's getting to the next one, the same thing with software tools. It actually hits the last point there, but I'll hit them all. Well, I'll hit independently and verified and validated in a second, but I wanted to point out, you're right, it ensures consistency with our methodologies because the dose reconstructors aren't rewriting it every time and also efficiency because they're not entering the same data over and over and over.

And even early on, when we did do those kind of entries, people have a cut-and-paste that they would normally use for themselves, and they would consistently use that. It may differ between dose

reconstructors, and now I'm talking about, you know, eight years ago before we had these templates. Now it's all pulled in automatically. When we have a wording update, which we don't have that frequently anymore, but when we were first starting out the templates, if we had wording that was being misinterpreted by claimants or was really annoying them, when we wrote it one way and they were taking it another way, that would easily get a consistency that we get that wording changed across the whole process.

MR. FARVER: But, for example, say neutron energies. Now, that comes right from the tool.

MR. SIEBERT: Correct.

MR. FARVER: Okay. So whatever was used for the calculation should be the one that populates the table in the DR report?

MR. SIEBERT: Right. Which, more recently, that's what you'll see. When you guys do older dose reconstruction reviews, you

know, you've seen inconsistencies.

MR. FARVER: I mean, what time frame are we looking at?

MR. SIEBERT: I mean the last three, four, five years probably --

MR. FARVER: Okay.

MR. SIEBERT: -- would be my guess. And then the additional point that's under software tools, the first one actually, independently verified and validated. We follow our ORAU plan 26 for our verification of our software development, as well as Procedure 94, which is actually our tool verification program that's creating the test plans, doing the tests and validation of all the tools. So those are the two things that if you want to look at the QA/QC and development process for our electronic tools, plan 26 and Procedure 94.

MR. FARVER: Okay. Do you actually run test cases through?

MR. SIEBERT: Yes. That's part of

--

MR. FARVER: And you do hand verifications to make sure those are correct?

MR. SIEBERT: Yes, it's all done through the test plan under 94.

MR. FARVER: And is that available? I mean, is it somewhere I can get to to read, or is that something you would have to put out?

MR. SIEBERT: I can't tell you that off the top of my head.

MR. FARVER: Okay.

MR. SIEBERT: But I'll put a note down.

MR. HINNEFELD: So you're interested in the test plan for the verification of the tool; is that what you're asking?

MR. FARVER: Yes, if that's where all that information is contained. Especially how they do the test calculation.

CHAIRMAN GRIFFON: Or you want to

see the actual tests that were run, right?

MR. FARVER: Well, I guess we'll start with seeing what their plan is.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: And then maybe later on, because this is going to come up in the Savannah River issues about what are the tools that, some issues with -- you know, we might want to pull that calculation for that version of that tool.

CHAIRMAN GRIFFON: Okay.

MR. SIEBERT: Okay. Yes, I've got a note for that. And now we're to monitoring and measurement of the product itself, as opposed to the product realization. This is once the dose reconstructor has completed the dose reconstruction. It's submitted to the initial quality control review, and these are things that you saw last year, as well, the action forms that we used, Form 59 for the IQC. It's all out of Procedure 98. They just have a checklist that they walk right through

to the initial QC and do the comparisons out of that, and that's all kept under our records program.

Then the peer review includes the peer review feedback form, which this is something that we put in place about two years ago to test it out to see if it would be helpful to have a more consistent feedback form, which we obviously did find that useful. We started tracking it in a database about a year ago, so we have that information now and we're working with that. And that's been somewhat helpful for the dose reconstructor managers to see what types of errors are coming out of peer review.

We've got the comments grouped into 14 technical issues categories. That's going to be changing. One of the things I'll mention right now is we are updating our categorization for peer review for DCAS returns and for SC&A comments. We're changing the categorization so it's more consistent

across all of them, so we'll be comparing apples to apples across all three levels of review. That's something we're working on right now and get it in place in the next couple of months because we found, oftentimes, when you have a scientist create a review form, there's suddenly 214 categories that you can categorize, and it's hard to get them consistent. So we're trying to cull that down. Obviously, we don't have that many, but even with 14 it tends to get a little unwieldy. So we're culling that down and making it consistent across, so I think that's going to be very helpful to us. And the dose reconstruction group managers review these and looked for any consistent issues that we issue.

MR. FARVER: And the peer review feedback form, is that part of PROC-59?

MR. SIEBERT: No. As it stands right now, it is a non-proceduralized issue because we started using it just to test it

out, and we're using it as just to test work product. I have to discuss with Ed what we're planning on doing from a documentation point of view as to using it. As I said, we're making changes to it consistently at the moment.

MR. FARVER: So where does the Attachment A to PROC-59 fit in, the peer review checklist?

MR. SIEBERT: That's a checklist that's used by the dose reconstructor or the peer reviewer as they're doing their peer review. And then the Form 92 is -- Attachment A is Form 91. Form 92 is the sign-off saying that they completed the peer review, as well.

MR. FARVER: So that's the peer review feedback form?

MR. SIEBERT: No, that's the -- I'll look for the actual specific name. Peer review declaration, which is that's the declaration --

MR. FARVER: Okay, I see it.

Attachment B.

MR. SIEBERT: Yes.

MR. FARVER: Okay. So those two forms are still being used?

MR. SIEBERT: Correct.

MR. FARVER: And then there's the feedback form, which is separate?

MR. SIEBERT: Which is to give the feedback information to the dose reconstructor themselves and track what comments the peer reviewers may have.

MR. FARVER: Okay.

MEMBER MUNN: And this sounds, from your description, like the kind of tracking system that Brad and David were asking about earlier.

MR. SIEBERT: Yes. And that's the kind of thing we're working toward, to develop that more consistently.

MEMBER MUNN: Good. Thank you.

MR. SIEBERT: Sure.

CHAIRMAN GRIFFON: And the peer

review feedback form, as compared to the -- I'm looking at the table where you show your trend in error rates.

MR. SIEBERT: That is not this.

CHAIRMAN GRIFFON: So the peer review feedback form is not broken into the 14 areas, or is it?

MR. SIEBERT: Yes, it is broken into the 14 areas. What you're thinking of is the DCAS returns --

CHAIRMAN GRIFFON: Right.

MR. SIEBERT: -- that the technical and other comments that we get back from DCAS that we've been tracking for a much longer time period.

CHAIRMAN GRIFFON: Right.

MR. SIEBERT: And as I said, we're working to get all these categorizations consistent, so then we can compare the different portions and, you would hope, see, as things move through the system, your error rate would be reduced. Obviously, zero is

your goal, but you would consistently be able to hopefully catch things at the lower system that you wouldn't see at the higher levels. So we're really working on that right now. We're pretty excited about that.

The next step after peer review is technical editing and final QC review. Both of those are also out of Procedure 98, and there's forms that go along with those, check-off forms that are kept as records.

Then, finally, we get to transmit the draft dose reconstruction report over to NIOSH, and they get to review the reports and sign off on it and basically turn it back over to us for the close-out interview or, if they have comments, they will kick that back to us on a Form 35. And that's the information that's coming out of Procedure 77, how we deal with this information if we get a return from DCAS.

CHAIRMAN GRIFFON: Can you go back to that table then, that graph, which is the

DCAS returns, right?

MR. SIEBERT: Yes.

CHAIRMAN GRIFFON: Is there, within the data, I mean, I know this is a summary graph, do you have the breakout for these? It's different categories, I understand that.

MR. SIEBERT: Right.

CHAIRMAN GRIFFON: But do you have category breakouts? For example, if there was consistent errors in internal dose, you know, internal dose method used or whatever?

MR. SIEBERT: Yes, we have these broken out. I didn't bring any of that, but there's so much, various things. What we found over time and more recently, especially, as I said, with these other things that we're now tracking, categorization was not always consistent. And when you're not consistent with your categorization, the data that's coming out of it isn't always as helpful.

So these are the overall error

rate itself. Once we -- it's been helpful, but we're finding that it's probably going to be even more helpful once we have those categories consistent across these three.

And an additional step that we're doing right now is we would have a specific person who got these returns from DCAS, and they would enter them into our error rate data base, our comment data base, and make a characterization. They weren't always being as consistent as they could be because there was, once again, a lot of different categorizations. So we're reducing that and, as well, there will be two of us who are doing the categorization. Joel Arana and I will be taking care of that so that we have more consistent characterization. And then the data will be a little bit more useful to us for developing exactly where the issues are. So evolving process.

CHAIRMAN GRIFFON: And within that process, is there a breakout of the type of

claim? Like full internal dose, full external dose?

MR. SIEBERT: We don't pull that information in right now.

CHAIRMAN GRIFFON: Because I know that was a discussion --

MR. SIEBERT: We could do --

CHAIRMAN GRIFFON: -- in previous meetings that the level of review may depend on -- I mean, I think you were looking at that, right? You were saying that, if you have the cases that were likely to require a full dose reconstruction, then you may want more rigor in your review process, as opposed to an overestimating case. You might not need as much rigor in that review process.

MR. HINNEFELD: Typically, it just seems that if the case comes down over 45 percent it gets a pretty careful review in that process. You want to make sure that you've done the right thing in that process, as opposed to, you know, I would think people

would look at that more thoroughly than they would if it was 10 percent or something for one that was non-compensable. You look at compensable and make sure they didn't make some gross mistake.

CHAIRMAN GRIFFON: Yes. It seems like it would be human nature, but you're not really tracking that.

MR. HINNEFELD: I don't really know. Right.

CHAIRMAN GRIFFON: Right. Okay.

MR. SIEBERT: Now, as I said, it's Procedure 77 on our side where we actually deal with the error tracking and reporting. All the comments are categorized into categories, which makes sense, and it's put in our comment management utility database, and that's where we pull the technical errors. And, actually, everything goes into that database, not just technical errors. Any return that we get from DCAS, it may be a wording issue, it may be professional judgment

differences, it may be a miscommunication. Perhaps our dose reconstruction report wasn't as clear to explain to the DCAS reviewer what we were doing, and they may want a wording change, things like that. Those are all rolled into our return database, not just the technical errors themselves. We also have monthly and quarterly tracking and trending status reports that go to the objective three manager and the group managers, Joel and myself, to review that, which also includes the information all the way down to who the dose reconstructor and who the peer reviewers were so that we can see if there's some sort of consistency and if we see a peer reviewer that's consistently missing things or a dose reconstructor who has this type of error that they're making. We're watching that type of information, as well.

And then any time you throw a graph on, you expect everybody's eyes to go directly to it. So there it is, the technical

error rate that we've been tracking since early 2005. As you can see, it's obviously trending down. This does include, as I said, all comments back, and this is the Form 35s from DCAS to ORAU. This includes all comments, not just technical comments.

For example, if we had a wording change because an SEC just came out, and we've turned in some claims to DCAS before the SEC wording came out and now we need to re-work the wording to be consistent with the SEC, they will return those to us and we'll make those wording changes. There's no technical error, but we make a wording change. Those are all included here, as well. That's why sometimes you'll see blips upwards. Usually, it's something like an SEC just came out where we had some sort of issue that changed that we may need to change the reports and then maybe a chunk of them that come back for us to address that and then get them back out.

And, as I believe, we put one in

the slide right before it. The average technical errors right now, in the six months, right around one to one and a half-percent. Now, that would be the technical errors that DCAS caught something that we needed to change and fix the error and turn it back in.

Overall, as you can see, going down, which is just like you say, Brad, when you're tracking it and you can look at it, that's very helpful.

MEMBER CLAWSON: Okay. It's also helpful for us to go back and see where we've, how it's been approved, too.

MR. SIEBERT: Right. And that is the end of the slides. As I said, that's pretty much just a short overview of the document that we sent out to you, to all of you. So any additional questions? That was relatively quick.

MEMBER RICHARDSON: I have a question. This is David Richardson. Can you hear me?

CHAIRMAN GRIFFON: Yes.

MEMBER RICHARDSON: One question is so you've got February 12th in the graph -- February 2012.

MR. SIEBERT: Correct.

MEMBER RICHARDSON: And so it made me, I guess a starting question is: the document is not dated. When was this document written?

MR. SIEBERT: Oh, the original document? When did --

MEMBER RICHARDSON: The document here that you've provided us.

MR. SIEBERT: What? Two weeks ago?

MEMBER MUNN: This month.

MR. SIEBERT: He's talking about the document that was sent out, the explanation as to what this is all based upon.

MEMBER RICHARDSON: The ORAU Team dose reconstruction quality assurance/quality control program document.

MR. SIEBERT: Correct. What's the date that that was --

MR. CALHOUN: I'm trying to find out when MJ sent --

MR. SIEBERT: Sent over.

MR. CALHOUN: It was between the last meeting and this one.

MR. SIEBERT: We can approximate about a month.

CHAIRMAN GRIFFON: So it was just between the last two meetings or between -- yes.

MR. SIEBERT: Correct.

MEMBER RICHARDSON: So we had been, we've been asking for quite a long time now. As you said, I mean, we had a site visit that was over a year ago where we had posed the same sort of questions and asked for the description of the process: what was your in-house documentation for quality assurance? And a lot of it fell under the category of what you're calling monitoring and measurement

of the product, and it was motivated by the independent evaluations that were done through the Board where we were observing errors that seemed to have passed through whatever internal quality control was going on with your organization and also, in many cases, passing through NIOSH's.

And then when we were looking at it, we were finding things like data entry problems at a rate of -- if we were to take our data, which we weren't doing large numbers, but at a rate that was perhaps in the double digits for percentages. And so we had wanted to understand what was the etiology of those errors, and we went and visited you and we were given an overview, kind of in broad strokes, but we had asked for documentation. We received some documentation related to positions for people who had different responsibilities, managerial positions, but not a description of an auditing process.

We had asked again at the last

meeting, and we were told that we would be provided with a description of what documents you were currently using for the auditing process. And what we've received, it would appear to me, is an undated document which says here's what we can say today, but I wanted to know what was the process in place that was the etiology for all those errors that we saw? What was in place as the Quality Assurance Program? How were you monitoring and measuring the product?

So what you've described to me seems to be you're working towards getting into place something which will allow you to track certain classes of errors. But, as you said, the type of graph that you provided is not interpretable at this point because it conflates a number of things: tracking, transitions in SECs. It's so crude as to be very un-interpretable, and it certainly doesn't conform to an internal evaluation of your own quality assurance. It's what NIOSH

catches with their limited resources in terms of errors and returns to you. And when we do it again independently, we catch other errors. But it's still not clear to me what's the process?

So if you're saying you're ISO compliant, I would expect there to be some sort of document that says: this is what we say what we do and then some sort of process for saying we're performing to our level of documentation and we're auditing and tracking that. And I've gotten kind of a sense of a number of informal things that you are saying, but I've written in this document there's lots of those things. What's the process for the supervisor recognizing an error in the broad terms? What's the process for them recognizing the performance of an individual who's doing this work? And we've asked now for a very long time for what do you have in place for that, and this was written very recently. But how is this working? You've

been doing this for ten years.

MR. HINNEFELD: David, I think maybe, despite your explanation, maybe we don't quite understand what's being asked for. You've said, at one point you said there was a request for -- we find these errors and we want to know the etiology of these errors, meaning why did these errors occur. Now, we got an assignment on that. We're partway along that. That was the most recent, you know, that table of most recent. I don't know where that is now.

We looked back at like the five most recently completed cases that we had SC&A's review on at that time. We identified the errors and made an interpretation of those. I don't know. Have those been brought back to the Subcommittee?

MEMBER RICHARDSON: I'm sorry. Is this Stu who's answering?

MR. HINNEFELD: This is Stu. I'm sorry. Yes.

MEMBER RICHARDSON: Yes. But I guess I'm asking, I'm asking something prior to that, right? ORAU sent those to you, and you recognize them. What's happening internally? That's the place that I -- how are they recognizing when there's a problem? I guess it's as fundamental as that. If you were manufacturing -- I keep going back to kind of the, you know, quality assurance in manufacturing. If you're manufacturing a product and sending it out, how do you make sure that the soles are not falling off your shoes? And there's, you know, there are procedures in place for tracking the quality and the performance of a process.

And, you know, I feel like somewhere, starting on page four of this document, there's the monitoring and the measurement of a product. Okay. That's the heading that I was interested in here. I mean me, particularly. I mean, I know other people are interested in kind of tracking of

documents and other things, but as a basic question, kind of an empirical question, how do they know, what sort of review is happening? And I see, you know, there are these checklists, but there's not, there doesn't seem to be a process described here for keeping track, for showing us that this year something is better than last year. I mean, there's this technical error rate, but I find that kind of, you know, as you said, there are lots of issues that make that very, very difficult and not very useful for our purposes.

MR. HINNEFELD: So, in other words, besides the peer review feedback where the peer reviewer looks at the product which the dose reconstructor thinks is fine and the peer reviewer makes comments and those comments are then categorized and -- are you interested in what --

MEMBER RICHARDSON: So what I understood was, on this graph, from January

'05 until two years prior to today, that was not instituted. There was something else in place. One year ago those peer reviewer comments began to be logged, but they're not categorized in a consistent way yet. And so that's the, what we're saying is we're beginning to be able to have not a blind assessment; but there is, within there, a peer review, not of a sample but of the products going through and some categories that they'll begin to track. That's the quality program. Is that what you're pointing to?

MR. HINNEFELD: No, I'm trying to understand the questions you're asking. That was what I was talking about, but there is, essentially, a product inspection with comments noted and categorized and presumably something is done with those. There's an analysis of those to look for commonalities and some common cause sort of thing, so things you can fix or whatever you can fix. But you're looking for common cause and --

MEMBER RICHARDSON: Okay. So when we went a year ago and we asked, there was no tracking. That's been instituted, but there's not yet a procedure in place now for what they're going to do with that yet? Because, I mean, what we were just presented today is saying that this is a new thing, there's not agreement yet on how those categories will be formed, and there's no kind of data that they can show us right now about how that's working.

I mean the question -- I'm sorry if I'm not being clear about it. But I'm thinking, you know, about the way that I would track or manage people who do data entry and other complicated tasks for me.

MEMBER MUNN: May I try this, even though I'm the last person in the world to try to explain what David means. But I think what he means is he would like to know what happens and when you check it. He would like to know what originally we started with. When you got

a claim and you knew what you were supposed to do with it, who did what and who checked what and who recorded what? I think he wants to know what was done, who did it, and how it was checked throughout the entire process, I think, in the past and what has been done in the interim to improve that and make it more precise. Am I close, David?

MEMBER RICHARDSON: Right, yes. And there have been a number of comments along the way that were very much the same. Mistakes are corrected as they are found, and no record is currently maintained. Well, so I would like to know, you know -- I mean, to me, that's surprising in a sense of: how do you know you're doing better?

MR. HINNEFELD: Well, if I can offer one thing, as a general sense, I think the key here is to identify where the recording and analysis will be the most beneficial and to perhaps recognize, well, absolutely recognize that every process that

you install for recording and analyzing and evaluating is a cost. And so that cost then subtracts from the number of dose reconstructions we can do, the amount of work we can spend on SECs and Site Profile reviews. But the idea here is to be able to accomplish what we need to do, do what is appropriate and worthwhile here, and I'm not arguing that we shouldn't do it or we shouldn't do more. I think what we've done and what you've described is largely in response to comments from this Subcommittee about it.

MEMBER RICHARDSON: But, but, Stu, can I ask you a question? Because you're speaking with a "we," which would sound to be what "we" can do as being encompassing both NIOSH and ORAU.

MR. HINNEFELD: I tend to, sure.

MEMBER RICHARDSON: And I was working under the model that you were the employer and that they were a subcontractor.

MR. HINNEFELD: Yes, and I have a

fixed amount of money to give them. And I have a certain amount of work to accomplish. I have more work to accomplish than I can accomplish in a timely fashion.

MEMBER RICHARDSON: Can I ask you, do you, do they work on a per-hour basis or do they have or do you have a contract in which there is some expectation of deliverables?

MR. HINNEFELD: Well, they are not paid for deliverables. There is an expectation of deliverables. It's conveyed to them in their award fee for their contract, but they are not paid for deliverables. They are a cost-reimbursable contract.

MEMBER RICHARDSON: So right now the way their contract is written, there's not, they're not expected to take some of the money that you give them and be doing some of this tracking of mistakes?

MR. HINNEFELD: Yes, they are, and they are doing some. Are they doing --

(Simultaneous speakers.)

MEMBER RICHARDSON: -- are corrected as they are found, and no record is maintained.

MR. HINNEFELD: Whether they're doing as much as they should or not is an open question, and we will accept, you know, we are certainly interested in the Board's advice on that. The fact of the matter, though, is that we have worked -- "we," meaning we at ORAU, have worked at improving this process, in, you know, quite a large part, because of advice of this Subcommittee. And we're continuing to do that, so Scott is describing an evolutionary process that doesn't necessarily move as fast as any of us would like.

MEMBER MUNN: And the operative word and what Stu said earlier is probably appropriate. The word "appropriate" really comes into play because one has to meet some medium ground between laboratory statistics and industrial production. You have to hit in there somewhere. As he pointed out, cost is a

factor, and there's nothing that we can do to get around that. But by the same token, we're under extreme pressure from all sources to improve not only the rate of completion but also the quality of what's turned out. So you have to find an appropriate measure, and I suspect that every Member of not only the Subcommittee but the individuals who touch these claims probably have a different assessment of what is appropriate, depending upon your philosophy regarding outcome.

DR. MAURO: This is John.

CHAIRMAN GRIFFON: Hold on, John.

DR. MAURO: Okay.

MEMBER KOTELCHUCK: If you want to do what Dave Richardson is suggesting, that is to keep a total record of all mistakes that have been found and corrected, is it possible for you to say how much of a fiscal and resource burden that would be? Implicitly, it must be large, or I assume you would have done it.

MR. SIEBERT: That's not something I specifically can address.

MEMBER KOTELCHUCK: Okay.

MR. SIEBERT: But you're right. It's not insignificant.

MEMBER KOTELCHUCK: Yes. I wondered whatever suggestions have been made in the past have been made and have been acted upon as best as you could do it, balancing these. Probably you're not able to afford, in different senses of that, doing a total system change, but I was impressed that in the data entry you said, well, of course, most folks do double data entry and then compare them. But that's resource-intensive. That's enormously resource-intensive. But I wondered if you could experiment by beginning to do X percent, X being a number less than two digits, to do double data entry and compare. And, internally, you could keep a very good record of that, and that would provide something better than the current system but not

changing the entire system at this point and perhaps could identify things that would help move you in a direction toward keeping more records. I wondered if that's something that might be feasible. It's a thought, and I obviously am new, so I don't know that much about it.

MR. SIEBERT: No, a fresh perspective is always good. We are always willing and happy to do whatever DCAS asks us to do.

MR. HINNEFELD: Yes, this is Stu. ORAU will do what we ask them to do. Should I take it as the Board's advice or the Subcommittee's advice that we investigate -- I mean, there are some things we could do. I think, for the purposes of the discussion and the Subcommittee's interest, it behooves us to work with our contractor management, and Scott is not really the contractor management I need to work with, to see what can we do to provide some feedback, you know, to make some

judgments about what would we be talking about in that context or in some of these other contexts, sort of a broad scale error tracking.

You know, I go back to the old days when people would flow-chart a work process, and at certain points in the work process there are things you can do to check and see if things are done right at that point, maybe at every step of the process but certainly at some of them. And you can do that and you can say, okay, here are the potential things we could do to measure and record and keep track of and analyze progress at these steps. You know, that effort in itself is going to take some time and some money for our contractor to do that. So I suspect that we will not get what I'm thinking of but maybe some other pieces because there are people who are far more familiar with the process than I, you know, the people who do it. Scott, who is far more familiar with the

process than I am, could say, well, here's some places where it might make sense and we could do something like that, or we could ask them to do something like that, and say where are the places where it would make sense to have a system like this? And, also, what do you see as the work burden for doing these systems at these places for record, you know, measure, record, feedback, and analyze on a regular basis how things are going? What do you see as the work burden to do that? We can come up with that. We've asked them to do cost analyses before for other purposes, so I think they would give us their best shot. All these things, of course, are a little fuzzy because different things, people don't necessarily do things at the same rate you think they're going to, and the cost here is going to be time, you know, manpower. But we can give it a shot. We'll ask our contractor to -

CHAIRMAN GRIFFON: Wanda. And

then John on the phone, I know you've got a question.

MEMBER MUNN: I have a yes-but here, and my yes-but is: how low, how complete do you think you're going to get this information? It's never going to be fully complete. And as Scott said, you can always improve, but is that necessary to be our primary goal when we're looking at these as overseers? I can tell you from personal experience, even though the graph that we're looking at here is only a snapshot of a part of the cases that were involved, nevertheless, I can tell you that, from an industrial standpoint, most manufacturers would be extremely happy with the level of technical error rate that's being seen there.

Now, I don't know yet, sitting here, whether this low level of error rate is being seen across the board with the other types of claims that we haven't covered by this graph. But if the other error rate is

anywhere near approaching this, then it becomes a real question of not just fiscal but also a people power issue and whether the effort, the time that is necessary -- it's all about time -- whether the time that is necessary to reduce the error rate below the one to one and a half percent, if that is, in fact, the error rate that we're seeing. Is that really where we want to devote our time and our interest?

You know, it's desirable if we can achieve 100 percent but not necessarily reasonable to do so. And we, I think, need to be concerned not only with what we're, by extension, asking ORAU to do but what we're also asking the folks at DCAS to even look at to pursue.

So the question that I would lay before us is are we not at a point where it would be judicious of us to suggest that we, at our next meeting, have an opportunity to see what data ORAU has available with respect

to the error rate on the other types of claims that we have not seen here? They're just setting up now to do that with their new system of parsing 14 --

MR. SIEBERT: Wanda, can I ask you a question?

MEMBER MUNN: Yes.

MR. SIEBERT: When you say the other types of claims, are you talking about the other levels of the process --

MEMBER MUNN: Yes.

MR. SIEBERT: -- the peer review and --

MEMBER MUNN: Yes, I am.

MR. SIEBERT: Okay.

MEMBER MUNN: Yes, sir, I am.

MR. SIEBERT: I just wanted to make sure I understood.

MEMBER MUNN: If we see that error rate, that low error rate, and the drop in error rate -- of course, we're not asking to go back and look at the drop, are we? But if

we're seeing this error rate consistent across the types of claims that they're going to be looking at, do we not want to wait to see what that -- if that's a similar low rate before we ask folks to go out and start --

MEMBER RICHARDSON: So, Wanda, I appreciate these comments because the way that you're thinking about this is, objectively, we are presented with data and we can feel reassured because there's been a logical collection of information, a clear presentation of it, and that gives us the basis for feeling like the resources have been put into the right places with regards to quality control and quality assurance. And that was, that's the whole background of this was --

MEMBER MUNN: Are we going --

MEMBER RICHARDSON: -- how was that information being collected, and we went there and we asked for it, and now we've been presented with a chart which shows us

something. And I guess my only question is: are they collecting the information that we need to feel like we understand the kind of level of errors? Because, when we walked into that meeting a year ago, I said right now the only basis I have for understanding the error rate is that we had done, the DR Subcommittee had gone through, what, a hundred, two hundred dose reconstructions and found errors on the range of, I don't know, seven percent, ten percent, where there were kind of data entry problems. At least that was my impression at the time, and I said if my impression based on that small sample is correct, then the error rate is relatively high. It's not one percent. So right now I'm trying to reconcile two conflicting pieces of information in my head, one that comes from a historical evaluation and another one which comes from a histogram with a smoothed line fitted over it.

But, you know, the more fundamental question is: it can't just be up

to this small Subcommittee to be doing this audit process on all those different steps that happen within ORAU. I was imagining, expecting that they had a procedure in place for the collection and ongoing monitoring of that information that they looked at in-house, as well. And this memo is describing, I think, that, in some detail. It's not kind of the way I would do it, I guess.

Perhaps NIOSH is satisfied with how that's being done. It's surprising to me, from a managerial perspective, that there's not more kind of ongoing surveillance or auditing of different places where problems may arise and when they impose an intervention, like a new spreadsheet, tracking errors to see whether that's propagated some sort of unexpected problem.

But, yes, I agree with you. If this histogram, if we take it at face value and we believe the smooth line is one percent and it's not the bars over the prior three

months, which have an error of more like four percent, and we think that one out of 20 dose reconstructions, it's acceptable that they have technical errors and we don't think that any further effort should be put, then that's all good news.

MR. SIEBERT: But just a clarification that these are not technical errors. These are all the returns from DCAS to us, no matter the type of return it was.

MEMBER RICHARDSON: I'm just repeating the title of the graph.

MR. SIEBERT: Okay.

MEMBER RICHARDSON: And I agree there's lots of problems with the histogram, which make it very difficult to interpret. I guess it was a hypothetical. If we believed that these bars represented the true error rate in the process, then maybe we would just want to not discuss this any further. But I'm skeptical of that.

MEMBER MUNN: Yes, I guess the

question that raises in my mind is the question of how can we present this information so that it is more meaningful to us, David. That's the question that raises for me, and the only one really.

MEMBER RICHARDSON: Yes. Well, the first thing, I mean, for me, the first thing was, we asked the question: is there documentation on the QA/QC process and the auditing? And I was under the impression that there was an auditing process in place and that the documents that we would get would have historical dates assigned to them, that here was the auditing process which was in place and maybe, you know, with appendices that showed how auditing processes had changed. What we have is a, you know, is a de novo memo describing here's the various ways in which we are looking at quality. But it's still not, to me, doesn't fall within what I would expect as a procedure which was put in place for managing a very, very large,

complicated, you know, effort, where there's lots of places where errors could occur and this is how we're tracking and monitoring them because we're, you know, involved in something important and expensive.

MEMBER MUNN: Yes. I'm back to what I think your original question was: what, specifically, steps did you do in your process, where was it checked, and what's the result?

MEMBER RICHARDSON: Yes.

CHAIRMAN GRIFFON: John Mauro?

DR. MAURO: Yes.

CHAIRMAN GRIFFON: You had a question or comment.

DR. MAURO: I do have a comment, and it's a complement, I would say, to what was being discussed. The discussion we're having right now is sort of a ISO 9000/9001 process to build bureaucracy layers of checks and scorecard, as if we're in a manufacturing process. I'm going to say, certainly, there's

great value to doing that and applying that way of checks and what is it that you will check and track and what metrics will be kept to see trends. There's value to that. But I think we've got a root cause situation regarding errors where, in fact, such a process may exacerbate that.

We have just reviewed a case. I have the number. It's a Hanford case. I have the author. And it is, by far, the best documented DR case that -- well, I'd look at all them but many of them. What I'm getting at is every step in the process was the rationale was disclosed by the author, the starting point. When I think of getting to the root cause, it starts with the person responsible for the DR. If that person takes personal responsibility and ownership, not a filing a procedure but certainly looking at the procedure and then making judgments, the degree to which what aspect of the procedure, because that person is always given

discretion, and that person must always be given discretion, just the way in which you would not want to take away discretion away from a surgeon. That person should always have discretion, and the procedures, the Site Profiles, et cetera, should never be so prescriptive that you take away that discretion from the dose reconstructor.

The only thing I would recommend is that every dose reconstruction that's done by your folks be done and documented the way this young lady -- I'm not going to name names on the phone. I certainly will be glad to tell you the name and the number of the case. If you were to take a look at that and see exactly how that person documented every decision that was made in marching through this complex process, along with the rationale for picking what she picked, I think that would go a long way to improving quality and not only improving quality, because it would be a self-assessment of the person. The

person will always be asking himself, I'm picking this number and here's why. When you do that, you catch your own errors. And when you do that, you may decide not to follow the protocol and you have a reason for it.

What's going to happen then is you're going to get a better dose reconstruction that will have fewer errors, you know, quality errors. Not only that, you're going to allow that person to continue having discretion. And then when the QA audits begin, it's all going to be there in front of the auditor. And by the way, and the reason I'm saying this, we're the last step in that process when we get the DR to review. I can tell you this: this one stood out because it gave us everything we needed to quickly determine whether prudent decisions were made and whether or not this was a quality product, and we were able to do it quickly and there was no ambiguity because everything was explained.

I say that certainly build your process for metrics, for tracking quality, like an ISO 9000 would. But I would say, more importantly, if you could ask everyone to prepare the DR analysis in accordance with this one particular case that I have in front of me, it will go a long way to solving quality problems.

CHAIRMAN GRIFFON: And, John, just to weigh into this conversation, if I can take a step with yours, the personal responsibility angle, if I'm doing a dose reconstruction and I document, you know, you don't follow the protocol, as you described it. But as long as you document it, it's okay. So if that happens on 1,000 cases out of 5,000, as long as I'm documenting it it's okay. And we're not tracking it, so nobody ever switches the protocol. You just have everybody going around the protocol. Is that what you see happening here?

DR. MAURO: No, I'm saying that --

CHAIRMAN GRIFFON: Is that the best way forward? I don't know.

DR. MAURO: I'm saying that I don't want to be -- I think the protocol is a starting point for ensuring consistency and quality. But, meanwhile, we're not talking about people on an assembly line. We're talking about people with Ph.D.s who have been asked to look at some very difficult questions, each one are unique, and a degree to which -- just like the American Medical Association puts out protocols. But in the end, these professionals, I think they follow the protocol, they should follow the protocol, unless they feel otherwise. And, by the way, the protocol is not all that prescriptive either, not always. I mean, room has to be given for discretion. And within the protocol itself, there is discretion, choose this versus this under these circumstances and these circumstances. So there's always judgments on the part of the DR performer as

to what are the circumstances that apply to this situation so, as a result of that, I'm picking this and I'm not picking that. And that --

CHAIRMAN GRIFFON: Oh, yes. We may be talking past each other a little bit, I mean, if it's a flexible protocol, then you wouldn't really be documenting something that you're violating the protocol. Right, right. You're following your personal judgment.

DR. MAURO: Right, yes. But I'm saying that you're in within your protocol and you make a choice and you justify it. So that's why I say what I had to say is really a complement. I'm saying that there are aspects to quality that we're not talking about right now. We're talking about ways, after the fact, to catch mistakes, track them. I guess all I'm really adding is, certainly, that needs to be done, but I think it's -- the reason I bring it up is only because we ran across this one case that was a knockout. And

it's sort of like, oh, my goodness, we've been waiting for this for eight years.

MEMBER RICHARDSON: Yes. Well, I appreciate that, but, you know, you started off by saying are there clearly-defined metrics and are they, you know, and are those metrics that are going to define certain aspects of quality being tracked and are they trackable? And I agree. At some point, there's going to be a lot of nuance to this, but, you know, Dave's question was if there's not, for example, line double entry of the raw information, is there a possibility of some random entry of a sub-sample? And that's how I've been thinking about it, also. And what the one piece of information that we had that sort of looked like that were these dose reconstructions, but they're not a random sample. They're over-sampled on a number of different attributes, but they were suggesting that there was some problem of data entry as being a fundamental issue.

Now, NIOSH has recently instituted a very small blind dose reconstruction, but that's going to be -- you'll have to remind me. Is it one percent? Two percent?

MEMBER MUNN: I thought we said two originally but --

MR. HINNEFELD: Just a couple a week.

CHAIRMAN GRIFFON: Yes, a couple a week.

MEMBER RICHARDSON: A couple of week. So, again, we have external organizations which are doing, you know, samples. One of them is quasi-random and one of them not random at all but on the order of, you know, looking at one percent samples or very, very small samples. So that's the one kind of set of data points that we have, and I was wondering if there are internal metrics for quality and whether those are being tracked and how they're being derived. And that's, you know, I mean, these are --

CHAIRMAN GRIFFON: Yes. And I guess that --

MEMBER RICHARDSON: I mean, I'm just struggling with what are the metrics for quality.

CHAIRMAN GRIFFON: And I think -- let me just one second. I think Scott alluded to, I mean, you talked about this DR tracking database, tracking and reporting. So you have an internal under PROC-77, right?

MR. SIEBERT: Right.

CHAIRMAN GRIFFON: Error tracking. And there may be this question of the categorization being different at different levels. I mean, I don't know if you've been doing this all along, but maybe now you're doing more of the analysis. Okay, this comes from there, but the sub-level of this is what I'm interested in because I agree this doesn't tell me much. But if you got some more granularity and found out that -- I mean, I think there's several levels in this. I mean,

one is are you weighting the errors, you know, are there significant errors versus minor errors? I think that might be important. Are you finding a large degree of errors are falling in one category, in one of your categories? I think that's the kind of stuff that might come out of this that then you -- because I think one thing that I'm not sure is happening. I mean, I think you're making some efforts, but a lot of it is sort of just the feeling of where you think, well, we can improve by doing this. I don't know that you're necessarily using these metrics to guide your feedback loop to say, geez, well, we can't track everything, as Wanda would say, right?

MEMBER MUNN: We can't.

CHAIRMAN GRIFFON: However, we're finding that we're getting a lot of errors in this one category, and maybe we need to pay attention to that in the original DR process and in our review process. Maybe we need to

tighten up something there. So then you're being cost-effective in the way you're using your money, but you're finding it from the data.

And with this general trend, I don't think you really know where to, you know, how do we get there, how do we improve? I think you've made some changes that you knew, just from maybe staff feedback or whatever, that if we had, you know, template workbooks all the time and made sure people were using the one from the server all the time, it's intuitively obvious that you're going to narrow down some of those mistakes. But I don't think -- have you used this performance, these metrics in any way to guide some of those decisions? I don't think you've gotten there yet, not necessarily.

MR. SIEBERT: Probably not to that granularity at the moment.

CHAIRMAN GRIFFON: I mean, that's where I'm saying it might be useful to see

that sub-level, what comes out of the database on those categories. That might be helpful in guiding you guys internally but also in giving us a sense of what you're really looking at. David, I cut you off --

MEMBER KOTELCHUCK: No, you didn't cut me off. What I had an impression was that this suggestion about the double key entry was that some of that is being done by NIOSH now, right? You're getting feedback, and then you're having trouble because they have different categories than you have, right? The categories don't overlap. And it seemed to me if you were to do that double key internally, some of it, particularly on that entry, that that would relieve them of a burden, on one hand; and on the other hand, you wouldn't have any problems with internal categorization because you have your categories, for better or worse, whether they're identical or not. And I do think it could lead you to seeing where, as Stu said,

to lead you to suggest where you might put some things in place.

So I do think it might be helpful as a way to move forward or to think about what you might be able to do in that respect. That would help you move forward without doing double key entry for everything, which you can't do.

MR. SIEBERT: And I believe that's what Stu was saying.

MEMBER KOTELCHUCK: Yes. But I'm saying that this will help relieve, eventually help relieve NIOSH. NIOSH people are probably checking your data entry, right? I assume. That's not your --

MR. CALHOUN: We don't double key. We don't double key or key in anything from raw. When our DRs -- or our health physicists review a DR, all of the documents are available to us and we can look and see what, for example, what dose was reported by the Savannah River Site and what was used in the

dose reconstruction.

MEMBER KOTELCHUCK: Yes.

CHAIRMAN GRIFFON: On your blind reviews are you re-keying data? No. Even then you're not. I mean, this, to me, is a good example because, okay, double entry data, maybe that's a good idea. And I brought up earlier the error tracking. I know we've had, and David is probably right, seven, ten percent QA/QC errors through our first hundred or two hundred cases. I don't know that we've had ten percent data entry errors. I mean, I think it was all kind of QA/QC --

MR. FARVER: I only remember maybe a couple.

CHAIRMAN GRIFFON: At any rate, if there was just a couple, so here we're talking about maybe doing some double key entry and seeing if that improves things. I'm saying I wish we had a baseline. And then if you were tracking these errors all along, you can come back to this committee and say, here's our

data and we've shown, you know, 0.1 percent, because we do 100 percent auditing of our data entry, and we're finding very few errors in that process. But you don't really have those numbers, so now you're kind of guessing, well, maybe we should do some -- and I don't know that there's an objective basis to do that. I mean, I wish I knew. I wish I could say. I don't think we've found -- we've had a couple of the data entry errors.

MR. FARVER: And I think even maybe one or so of those have been kind of trying to interpret numbers from hands-on records.

CHAIRMAN GRIFFON: Right. And some even surprised us that it went through the multiple peer reviews without being caught. That was more of that process. But, you know, to go to a double key entry, I think I would want to know what's our track record with this? We're doing 100 percent audit on all the keying in, and if you had a program

that showed, geez, we're catching very few errors, it's in the less than one percent, you know. Then there's no need to do a double-key.

MR. FARVER: Exactly.

CHAIRMAN GRIFFON: Right. But I guess that gets back to the -- and then going back to those other 14 categories the same way, you know. There's no need to try to improve something if the error rates are so low in these areas. Something may flush out as being worth more investment. That's my point, I guess.

MR. FARVER: One of the errors we do see, and I'm not even going to say how often but I'm sure you remember this, is where a dose per year is omitted, okay? And we've talked about this in the past, and sometimes it's when they combine the IREP files with the internal and external. It's been a cut-and-paste error in the past. But, anyway, there comes a time when a certain year is omitted.

Now, I think they already have a mechanism in place that should catch that, and it's been in place in their procedure since 2005. It's the peer review checklist. I'm looking at the first item, and it says proton dose. IREP value matches DR report. Now, if you would check that, you would say there's a difference, and then you would go on and find the difference. So I don't know why we keep finding that error or that type of error.

CHAIRMAN GRIFFON: And then, internally, I would think if that was being tracked and it kept coming up on internally with ORAU, the supervisors would come back and say: why is this continuing to happen?

MR. FARVER: I mean, if that's done on one of the cases we reviewed, then we wouldn't find an error.

CHAIRMAN GRIFFON: Right.

MR. FARVER: So I don't understand. And there's a whole checklist. I think it's about 12 pages long, making sure

they've got -- were all bioassay samples considered and do you have the right energies to write those correction factors?

CHAIRMAN GRIFFON: Right, right.

MR. FARVER: And someone is supposed to go through and check all this. So I'm not sure why we're finding these things.

MR. KATZ: Is the checklist a database? Is there a database for the checklist?

MR. SIEBERT: No. The checklist is not a signed and tracked document. It's a user guide to help the peer reviewers.

MR. KATZ: Okay. So they don't enter what errors --

CHAIRMAN GRIFFON: They don't do it online like --

MR. KATZ: Right. They don't do it -- I mean, it would be nice because they'd have all the data right there for all that.

MR. FARVER: But still, I mean, if we find a case that has an omitted dose, we

should be able to go back to this peer review checklist and see if someone actually did what they said they did.

CHAIRMAN GRIFFON: Right.

MEMBER RICHARDSON: Yes. So I'd consider an omitted dose part of this key punch error. Are you not?

MR. FARVER: No, this is on the part of the dose reconstructor and not the key puncher. The dose reconstructor is just going to load a file containing the dosimetry information that's already been key-punched and load that into a workbook.

MEMBER RICHARDSON: I see. Looking back through, you know, the reason I think it's, in my view, justifiable that we're having this long of a discussion about it is this was one of the things that we were tasked with doing out of the 10-year review.

CHAIRMAN GRIFFON: Oh, yes, definitely.

MEMBER RICHARDSON: And there was

discussion about looking at the more recent dose reconstructions. At the time, it was from the 12th set. We took the five most recent cases. We looked at them for errors, and there was still QA/QC errors in those. And the question was what's in place as a program to catch those types of errors because, as we're going through these, many of the early findings were generated from QA/QC issues. So, I mean, we can go back and talk about them, but they're not trivial. I mean, they're still, as you said, I don't think there's a benchmark for understanding what the level is and whether it's falling over time or not.

CHAIRMAN GRIFFON: Yes. And maybe there is, at least in 2005. I'm not sure.

Let me make a chair decision here. Can we take a 15-minute break and then come back and follow up on this, like what are our next steps? So this is a working break. While we're taking the break, think of where

we can go on this item and clear your head and maybe visit the little boys' or girls' room, okay? 15 minutes. Thanks.

(Whereupon, the above-entitled matter went off the record at 10:22 a.m. and resumed at 10:39 a.m.)

MR. KATZ: Folks on the phone, we're re-assembled.

CHAIRMAN GRIFFON: All right. Who's got the answer?

MEMBER MUNN: We were in mid-thought.

CHAIRMAN GRIFFON: In mid-thought.

MR. KATZ: Let me check. Do we have Dave? David, are you back with us? David Richardson, are you back on the line?

CHAIRMAN GRIFFON: We're not muted, are we?

MR. KATZ: No.

MEMBER MUNN: Maybe it was Dave's thought that we left.

MR. KATZ: John Stiver, you're

there, right?

MR. STIVER: I'm here.

MR. KATZ: Okay. I just wanted to make certain.

MR. STIVER: I was on mute.

MR. KATZ: Okay. Is that you, David? Have you rejoined us?

CHAIRMAN GRIFFON: It could have been John going back on --

MR. KATZ: John going on mute, yes. Well, anyway --

CHAIRMAN GRIFFON: Yes, well, we can start. I'm sure David will join us soon. Yes, I guess I was just trying to think of, you know, next steps, where we can go with this on the Subcommittee level. And a couple of questions or thoughts I had was, one was, I think, and I think this came up earlier, maybe from a comment David made, but the question of what's been in place over time. I think it might be useful to have that laid out. And maybe it's a very short document, but it would

be useful for me to see what's been in place over time.

It seems like, you know, based on Scott's presentation, a lot has changed and a lot of it is from feedback from the Board, from this Subcommittee, whatever. I'm not saying that that's a bad thing, but it would be useful to see how that's changed over time and when.

I'm still a little confused, and it's more me not understanding all the different layers than, you know, that it's not in place. But I'm still a little confused by what has been started two years ago with these feedback that you talked about the peer review feedback form -- I'm forgetting all the names -- as opposed to the, it looks like this graph goes back to '05, so you're collecting some sort of data from '05 --

MR. SIEBERT: '05. That's the Form 35s for all comments coming back from DCAS. But not inside our house, that were

coming to our house from --

CHAIRMAN GRIFFON: Okay. And then, internally, the database that you were talking about that you and one other individual have to go through the categories, what does that have in it?

MR. SIEBERT: That's the peer review. Well, first of all, it's the categorization of the comments that come back from DCAS. That's one portion of it, so, yes, that graph. And then another portion of it is bringing together the peer review feedback forms, which is internal to us --

CHAIRMAN GRIFFON: That's internal to ORAU. And where does that data start?

MR. SIEBERT: We started tracking in the database one year ago.

CHAIRMAN GRIFFON: One year. Okay.

MR. SIEBERT: We started off testing out using the feedback forms two years ago. And once we kind of beat that into

submission, something that worked, we started tracking it about a year ago.

CHAIRMAN GRIFFON: And those internal forms are documented in what procedure or --

MR. SIEBERT: That process isn't proceduralized at the moment.

CHAIRMAN GRIFFON: It's not proceduralized. Okay. Alright. So I guess that's what I'd be -- and then prior to that, what was in place internally within ORAU prior to 2010?

MR. HINNEFELD: So we're interested in hearing a description --

CHAIRMAN GRIFFON: Yes, just a description.

MR. HINNEFELD: -- for future that this is what has been in place --

CHAIRMAN GRIFFON: Right.

MR. HINNEFELD: -- from this point, and at this point this was instituted --

CHAIRMAN GRIFFON: And here's what we did in -- yes, yes, yes, just like some benchmarks. And I think internally and from NIOSH and DCAS side. I think that would be useful just for us to get a sense.

MR. SIEBERT: So that be as simple as each of the processes that are explained in this overall when each of them came online and if there's been changes over time to each of them?

MEMBER KOTELCHUCK: No, I think, I thought the simplest would be to take our technical error rate, and can you categorize in some fashion, I mean according to --

CHAIRMAN GRIFFON: Yes.

MEMBER KOTELCHUCK: -- but categorize in some fashion what they are. Well, you're saying according to these five, according to these five categories?

MR. SIEBERT: I think, mostly, what we've been discussing is the monitoring and measurement.

MEMBER KOTELCHUCK: Right.

MR. SIEBERT: And if you read through that section, there are various things in place: Procedure 98, Form 59, various forms that we've done for QA, and then the peer review feedback and so on and so forth. It seemed to me that you were kind of looking for when did each of these come into being.

CHAIRMAN GRIFFON: Come into being, and when were you tracking them, too?

MEMBER KOTELCHUCK: But how many, I mean there were a certain number of errors in November '05, and the question is what categories did they fall into?

CHAIRMAN GRIFFON: Well, Dave, you're getting to my second question, which the second question is: can we see this database that you have with all this stuff? Because I'd be interested in the sub-category. Or, at the very least, can you break out the sub-categories for us and can we look at what's happened from both the DCAS return

information you have and even your one year of data from internally, you know, by sub-category? Is it telling us anything? It would be nice for us to see just how the categories, you know, how that breakdown looks, as opposed to just the overall error rate.

So I have two questions I was looking at. One, just from a procedures standpoint, what's evolved over time? And in each one of those categories, I think it's important to note like some of these peer review forms may have been in place from the very beginning, but it might be important to note like I don't know how many revisions you've done on the peer review forms over time, and then when, if ever, did those things start to be tracked? You know what I mean? Not tracked.

MR. KATZ: It's not tracked today. That's what he explained earlier.

CHAIRMAN GRIFFON: Those

individual lines --

MR. KATZ: Right. The form, none of that is tracked.

CHAIRMAN GRIFFON: So how do you get these categories -- these are just based on your peer review comments that come back. You categorize those based on your 14 or so categories, right?

MR. SIEBERT: We're talking about two different things here.

CHAIRMAN GRIFFON: Yes.

MR. SIEBERT: What Ted is talking about is the peer review checklist, which is Form 91. That is not a tracked document. It's for guidance for the dose reconstructors for simplification that goes along with the peer review procedure.

CHAIRMAN GRIFFON: Okay.

MR. SIEBERT: What you're talking about is the peer review feedback forms, which we started using a couple of years ago, started tracking a year ago, and that's what

you're looking for?

CHAIRMAN GRIFFON: Well, yes, I was asking just about all those things, when they were in place, whether they're tracked, not tracked, whatever. I think just to sort it out for, I mean, for those of us who have been in the program for a while, especially those that are just coming onto the Board.

MR. SIEBERT: Right.

CHAIRMAN GRIFFON: Right, right. I think that would be just a useful overview. And then the second question is more the specifics in the database that you have.

MR. SIEBERT: What we're seeing.

CHAIRMAN GRIFFON: Yes, what the breakout is. Not just the overall error rate, but on the sub-level, yes. I think that would be useful for me for next steps. I don't know if -- David, are you on the phone? He didn't get back on yet.

MEMBER RICHARDSON: I'm on the phone. I was on mute.

CHAIRMAN GRIFFON: Oh, I'm sorry. Do you have any -- I mean, I think, have you been on for a few minutes? I don't know how long --

MEMBER RICHARDSON: Yes, I've been on since the start.

CHAIRMAN GRIFFON: Okay. So I don't know if you had anything to add to sort of steps forward.

MEMBER RICHARDSON: No, I think that makes sense for us to clarify what's happened. And then I think we, you know, aside from that, I think all we can do is move forward and report on understanding -- you know, at some point, we need to summarize some sort of conclusions about what we think the state of the situation is with regards to the QA/QC issues that were raised in the 10-year report. Is that, are we supposed to be following up on that, or would that be --

CHAIRMAN GRIFFON: Yes, yes. Yes, I don't know exactly what we -- I'm trying to

think what we found in that report or in the 10-year report what specifically they recommended that we look at.

MR. HINNEFELD: The recommendation -- this is Stu Hinnefeld. The recommendation, essentially, was to continue to work with the Subcommittee on reviewing QA/QC issues associated with dose reconstruction. So there's no specific charge to the Subcommittee, and the Subcommittee is left to its own devices and ingenuity on where to go with it.

MR. KATZ: I think what David is just raising is occasionally you need to report back to the full Board on your progress on this element.

CHAIRMAN GRIFFON: Right, right. Okay. So I have two actions, unless others have things to add. One is just to clarify the QA/QC procedures in place over time, right, as we just discussed, Scott. And indicate whether these elements were tracked

or not tracked in some sort of data base process. And then, you know, I think that's sort of the overall picture.

And then the second item I have was, looking at your graph on the technical error rate, the sort of granularity out of that, the subcategories, can you provide some information? Either access to that database that we can sort of look at it or at least, you know, report back on, you know, maybe by subcategory, what your findings were as far as the error rates from the DCAS return side and also from your year worth of data that you have internally. Is that a massive undertaking or -- there's some hesitation there.

MR. HINNEFELD: I don't know. I would not think so. I think access to database might be a little problematic. But a report by category, I don't know what the issue might be there. I think Scott is reluctant to commit his organization.

CHAIRMAN GRIFFON: Yes, okay.

MR. HINNEFELD: But we'll see what we can work out on that. We talked about a couple of other things, too, or at least we talked about one other thing I know of, which was some sort of test for double key entry. In other words, could we take a random sampling? And I'm trying to understand how this is going to work. As I understand how this would work, is we would take a sampling of cases after we had gone through our process of data entry and inspection or whatever we do now, you know, where we go back over it and a data entry person says, okay, I am gone. You take then a random sampling of those. You would have another key entry person then do the key entry and to determine -- and then, once you've done that, if there are differences, you've got to decide which one was entered incorrectly. And if, in fact, the current process ends up with errors, then you would have to make some consideration about: is it sufficient? You know, is what we're

doing sufficient? Is the error rate -- this inspection isn't really working well.

That is a thing that could be designed and done. I don't know that it could be done real quickly, but it's something that could be designed and done. Go ahead.

MEMBER KOTELCHUCK: No, I'm sorry. I'm interrupting you.

MR. HINNEFELD: I was going to move on to something else.

MEMBER KOTELCHUCK: Okay. Well, then I was actually thinking that if we got the report back basically clarifying the data that has already been presented, and the graph that's already been presented, then, having seen that, I would be ready to think about, well, how might you do double keying? But I don't, my feeling is it doesn't need to be done now. In fact, if we're asking for a further report, a little more detail, a little more detail on what we have, then we can help think through. And I suggest that we propose

a second time with a little more concreteness.

MR. HINNEFELD: So nothing on that --

CHAIRMAN GRIFFON: I was going to say -- that's why I didn't bring it up. I was going to say hold off on that, but I wanted to hear from others.

MEMBER KOTELCHUCK: I agree, I agree.

CHAIRMAN GRIFFON: But I think let's see this first and -- yes.

MR. HINNEFELD: Okay. And then similarly then on what I was talking about, you know, where you would flowchart the work process, decide on places where inspection, you know, inspecting product, interim product, reporting results, and then analysis, something like that is premature, as well, other than maybe some preliminary thinking about the question. You know, I think we should go off and think about the question anyway.

CHAIRMAN GRIFFON: We should think about it, yes.

MR. HINNEFELD: But you're not really expecting any kind of product now on that coming out of here today?

CHAIRMAN GRIFFON: No, I wasn't. No, no.

MR. HINNEFELD: Okay. All right.

CHAIRMAN GRIFFON: I think that's -- Doug, do you have anything to add on that?

MR. FARVER: No, no, I'm just going to keep these things in mind as we go through. We're going to talk about the findings. When we come across a QA concern or something, just be thinking about where in the process, you know, should that have been caught or should it not have been caught or how can you fix it?

CHAIRMAN GRIFFON: Right.

MEMBER KOTELCHUCK: The one other thing on the proposal that you made a moment ago, I wanted to ask Scott, if you're not now

tracking your own, the peer review document that you, I don't know if I'm using the right term, but the one that you instituted a year ago, you're not now tracking it --

CHAIRMAN GRIFFON: You just started tracking it, right?

MEMBER KOTELCHUCK: I'm sorry. You are tracking it, but you have not categorized anything yet in that?

MR. SIEBERT: We had initial categorizations, and what we're doing is we're updating the categories to be more useful at the moment.

MEMBER KOTELCHUCK: Okay. The question is, Is what we're asking reasonably doable? What we're asking about the DRR technical error rate sounds like it is eminently doable because you basically have the elements for this graph.

The other one for your peer review, the one you're doing, the peer review document, is that something that you think

reasonably could be done now, or if you haven't actually decided on the categorization so maybe you want to hold off?

MR. SIEBERT: I think it might be premature to put that out. But --

MEMBER KOTELCHUCK: Okay. I just wanted to --

MR. SIEBERT: Because I think we are still working through that to make sure it's more useful to us and obviously to you guys, as well.

CHAIRMAN GRIFFON: And are you working on the, I mean the categories for DCAS returns, are you trying to --

MR. SIEBERT: Our plan is to make all those categories the same.

CHAIRMAN GRIFFON: Right, right, right. Okay.

MR. SIEBERT: So that we will be then consistent, and we can say, in peer review, in the number of report typo errors that we saw, we saw this many in the peer

review feedback, we saw this many from the DCAS returns, and we saw this many from the SC&A reviews. So we're trying to line those three up as much as we can so that we can do those comparisons at the different levels.

MR. CALHOUN: I got a question. This is Grady. Just the graph, I thought that those were just gross numbers. I mean --

MR. SIEBERT: Those are very gross. Yes, those are the --

MR. CALHOUN: Okay. So in terms of going back and looking, for 2005, for example, to categorize the numbers, that's not something that database are readily available, is it?

MR. SIEBERT: I don't believe all of it probably is. I'd have to go back and look at how far back I have --

MR. CALHOUN: I think those numbers are based on the fact that we get in something as simple as DOL had the cancer. We'll send them back a form that says revise

the dose reconstruction because DOL has cancer. It could also be that I don't agree with their internal dose calculations. But I didn't think those were categorized. They certainly aren't from our standpoint when we send them to you.

MR. SIEBERT: We've been categorizing them --

MR. CALHOUN: I know you do for DCAS --

MR. SIEBERT: Yes, I'd have to look at how long the comment --

MR. CALHOUN: So I'm just thinking that may not be something that you can go sort and --

MR. SIEBERT: Right. It may be more time-intensive.

MR. CALHOUN: Right.

CHAIRMAN GRIFFON: Maybe just, at the very least, an update on that, if it's not -- right, right. Make some movement on that.

MR. HINNEFELD: I think if there's

some period of time since 2005 when those categories are entered in the database or whatever is entered in terms of categories or database, I think we just come out with that. And there may be certain categories that are sort of un-interpretable because they include a number of different kinds of returns.

CHAIRMAN GRIFFON: Right. Yes, so those two items. Do the best on that second one. Okay. Anything else on that? We're through agenda item number two. Ted's only got 15 on the list for us.

MR. KATZ: We'll be saving them for tomorrow.

CHAIRMAN GRIFFON: Why don't I just get back to the agenda?

So we have, oh, the cost and benefits of possible changes in dose reconstruction efficiency processes. So this came out of the 10-year review, also. And the notion was, just to summarize, one of the things was that, you know, should you sort of

do a best estimate for all cases or are we really gaining that much cost savings in doing some of these efficiency methods, so that was, I think, the fundamental question.

And we got a response, a verbal response. I think maybe I pushed for this a little bit, but, you know, we want sort of in writing, but it was the justification that it really, that it wasn't cost-effective to do best estimates across the board. NIOSH gave us this document, and I'll let whoever is going to summarize that --

MR. CALHOUN: I think, basically, what the findings of this were are that doing a full-blown dose reconstruction is not cost-beneficial for us. There are some things we can look at doing, and none of them are free. All of them will cost us additional resources and money. And some of the things that we are looking at doing that may not have a huge impact are not overestimating, for example, X-rays, using the actual X-ray records rather

than using default numbers. That will lower the dose in most cases.

And another one was missed dose, using the actual number of zeros recorded rather than the maximizing periodicity of badge exchange. Those are the two that would be most cost-beneficial for us.

Obviously, we wouldn't look at doing a best estimate for an underestimate, you know, because that's silly. Once we get the case to 50 percent compensability, I don't think anybody thinks we should waste anymore time in trying to add more dose to that.

So that was the basic findings of what ORAU put together.

MEMBER MUNN: That sounded logical to me.

CHAIRMAN GRIFFON: And I guess there's -- this may be in your response somewhere. I'm trying to catch up with this document. I mean, part of the way this came about was the sort of questions of claimants

coming to public meetings or probably calling you and saying, why did my PoC go down when I got another cancer?

So, I mean, we also kicked around some things like, you know, did it make sense for certain cancers, like skin cancers where you're likely to have multiple cancer situations, just to bite the bullet and do best estimate right from the beginning? I don't know.

MR. CALHOUN: That was in there, too. Yes, yes.

CHAIRMAN GRIFFON: I'm sure you addressed that.

MR. CALHOUN: That's the bottom, it's the bottom of page three and the very last thing there.

CHAIRMAN GRIFFON: Alright.

MR. CALHOUN: That was a significant cost increase there, because 60 percent of the claims have one or more skin cancers, 44 percent of those.

MEMBER MUNN: That's a surprising statistic to me.

CHAIRMAN GRIFFON: Yes. I mean, do others have -- David, do you have any comments on this while I'm trying to read? You know, one question to me is this is sort of like the intangible cost to the program, you know. I think one thing we're concerned with is that you maintain credibility. And if certain people, petitioners or representatives of petitioners, start to view that this is, you know, a black box and they're playing games with the numbers, then how do you weigh the cost of that? I think that's a very, a very big concern to us and I'm sure to you, you know.

MR. HINNEFELD: It's a legitimate issue, and it's something that I was really interested in this analysis when we asked about it because I face those questions all the time. And in public comment we hear it at times, and we hear it more often than public

comment. But, you know, again, it came down, when you see the cost analysis and what it would cost to do away with overestimates, we try to explain in an overestimating dose reconstruction, I mean it starts right off after the legalese, it starts right off saying that this was an overestimating dose reconstruction and, if the facts of the case change, the numbers could very well go down. It starts right off with that.

CHAIRMAN GRIFFON: And I think we made those comments and you guys listened.

MR. CALHOUN: Yes, we changed that. We did.

CHAIRMAN GRIFFON: You changed the language in the reports. So that was a good - -

MR. HINNEFELD: When we rework a dose reconstruction, we explain what's been reworked and what has changed and why has it changed, an overestimate before that was removed from this one. That's all explained

in a dose reconstruction. We try to explain it as much as we can, you know, as a replacement for the fact that it just seems too expensive to do best estimates all the time. I mean, we, just in the past year or two, we have gotten on top of our backlog of dose reconstruction, and we now are doing them pretty much as they come in.

But you all know that we have multiple SEC discussions that are extending on and on and Site Profile reviews which are languishing because all of our time is being spent on dose reconstruction and SEC. So it's not a matter of we don't want to do this. It's a matter of balancing the things we need to accomplish.

CHAIRMAN GRIFFON: No, I appreciate NIOSH. I mean, the main reason I pushed for this was that it was brought up in the 10-year review. And I thought rather than just have some --

MR. HINNEFELD: Instead of my gut

feel.

CHAIRMAN GRIFFON: Yes, discussion on the record. I thought, this way, you have some documentation and, you know, I mean, I'm pretty persuaded. I'm very persuaded that, you know, we really can't go to the all best estimate cases.

MR. HINNEFELD: To the extent that we can accomplish some of the things that Grady mentioned, the partial things we might be able to do, I think we shouldn't forget about those, keep our eye on those and report back to the Subcommittee when we accomplished things along that line.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: But in terms of a broad-scale change, we just don't seem to have time to do that.

MEMBER KOTELCHUCK: With the limited knowledge of attending the Santa Fe meeting and seeing correspondence that we're getting from claimants and knowing how much

people know about radiation, I've been teaching both to graduate students, not speaking to general public, I really don't believe that, no matter how much this is explained, that people who are claimants or other people of the general public will understand this. And I feel very bad about that, because I just feel like there's so much technical background to that, both in the science and statistics, that it does seem like a loss in terms of convincing a more general public or claimants that this is fair, but I do think it is fair and we do our best and you do your best. But I shrug my shoulders because I feel that this is -- it's difficult. It's difficult, and I don't know what to do about it because I realize we can't do all best estimates.

CHAIRMAN GRIFFON: And, I mean, I think NIOSH has definitely improved on the communicating the claimants' sides.

MR. HINNEFELD: That's the thing

we're really trying to do.

CHAIRMAN GRIFFON: And that's what we've asked for as a Board. And I think the other thing that we can say as a Board is that, you know, we've continued to look at this over the years and, basically, you know, we can also explain that this is, you know, keep putting it out there that this is how they're doing it and it's scientifically valid. It's not that they're playing games with the numbers. I think that's important to hear from an independent Board saying it, also.

MEMBER KOTELCHUCK: Just thinking if there were some written communication. I mean, it is clearly written to the claimants, right? And it's explained, and I hear that. But if there were, perhaps, a written document for the public, if you will, so that claimants would be able to put their hands on this early on in the process and hopefully take it back to technical and professional people that they

know or that they've heard of. Suppose the claimants from a union, there is a health and safety officer somewhere at some level in that union, maybe at the national level, who has the background to understand that this is a fair process and explain, if you will, or go to the local public health school and talk to somebody who is knowledgeable in the science and statistics. I don't know if there is something like that out there, but if there isn't it might be useful, beyond the individual explanation in each case, which is done.

CHAIRMAN GRIFFON: I mean, you have done your outreach meetings.

MR. HINNEFELD: Well, I was thinking of one thing. We send, when a claimant's case is first referred to this, we send them a pretty significant package of information about what to expect, but I don't know that it's addressed in there. I'd have to go check.

So that's one thing. And then the other logical place, I don't know if people check our website or look at it, but there's an FAQ section on our website. We can put it there. We have written informational documents on our website, like you can pull one up on dose reconstruction and pull one up on SECs and things like that. I don't know if -- the dose reconstruction gets into overestimating it. What are the ramifications, which is really what we're talking about. The ramifications of using an overestimating approach is that we have this illogical, we can have this illogical result later on when a person gets a second cancer and their PoC goes down. So that's a ramification of using an overestimate the first time. So I don't know that we've written anything specifically.

MEMBER KOTELCHUCK: I was thinking, by writing something specific about that issue, it's one issue in which people will feel that we're being unfair when we're

not or when we're being fair and that putting out something -- if it's in FAQs, there are a million questions to ask. And packets, people don't, of course, not just that they don't always read packets, but they don't read the packet when they first submit, which is when they get the packet.

Once the process moves along, then they begin to get into it and think about detailed questions. It might be something that will bring a specific document, a specific piece of material for outreach might bring extra attention to this. It's certainly the one area that I've seen so far that claimants think we're being unfair when I feel, professionally, we are being fair.

It's a thought. Again, I don't want to mandate it, but maybe we can adapt what we've done.

CHAIRMAN GRIFFON: Yes.

MR. SIEBERT: And just to go back for Stu, I just wanted to let you know I did

pull up the FAQ, and it's one of the most significant questions that is on the NIOSH website FAQ. Why did my previous claim have a higher dose than my present one with the rework and additional cancer? So it is an -- I hear what you're saying. I just wanted to, for Stu's sake, to qualify that it is there and I'm looking at it.

MR. HINNEFELD: Which heading is it under? Dose reconstruction?

MR. SIEBERT: Dose reconstruction. And then if you scroll down, it's the only question that's, like, a paragraph long.

MEMBER MUNN: Anybody who's looking for it can find it.

MR. FARVER: It would be helpful to have something like that in a brochure form to have available at Board meetings when the public is there?

MEMBER KOTELCHUCK: Yes, that's kind of what I'm --

CHAIRMAN GRIFFON: That's sort of

what he --

MR. FARVER: Because the information already exists.

MEMBER MUNN: It exists in many places.

MEMBER KOTELCHUCK: It does, it does. I don't doubt it.

MEMBER MUNN: And putting it in their packet, it's always questionable how much of a packet people are supposed to --

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: -- when you get a stack of material. Perhaps other human beings are less fragile than I. I have a tendency to --

MEMBER KOTELCHUCK: Maybe this is something to bring to the outreach committee. This is an outreach issue, isn't it?

MEMBER MUNN: Outreach, yes, very familiar with it.

CHAIRMAN GRIFFON: I guess this is another one that, you know, when we think,

from our last discussion, on metrics, you know, is this something that NIOSH is getting as many questions now or questions/concerns as you were early, before you changed the language? You know, is it still -- I mean, we hear that the people that come to the Board meetings, of course, they're energized. They're angry or, you know, they take the time to do that. But from your volume of calls or whatever --

MR. CALHOUN: Just based on my experience, I can't say that it's gone down any. And I go to a lot of the meetings.

MR. SIEBERT: From a meeting point of view, I believe that's true. From a claimant communication --

CHAIRMAN GRIFFON: That's what I'm asking about.

MR. SIEBERT: -- point of view, on closeout interviews. I've asked Pat Kraps, our claimant interviewer manager, before and it did drop significantly once we started putting

that information in. And we actually rarely get that question anymore in closeout interviews.

CHAIRMAN GRIFFON: That's a good sign. That's my point is maybe you're offering fixes that are already fixed, so it would be good to know if there was a trend, and if it's only happening a few times --

MR. CALHOUN: Well, that's one thing to remember. I didn't even think about the close-out interviews, but every time a dose reconstruction is completed we speak with the claimants and talk to them about it. Do you have any concerns with how this was done? So I forgot all about that. That's important. CHAIRMAN GRIFFON: That's good. That's good to know.

MEMBER KOTELCHUCK: Much of what I'm reporting is thinking of the Board meeting the last spring, but you've been to many.

CHAIRMAN GRIFFON: And we're going to always get those at the Board meeting but--

MEMBER MUNN: But very much fewer, very much fewer.

CHAIRMAN GRIFFON: It's hard for us to sort of look at trends from our public meetings.

MEMBER MUNN: They've clearly gone down.

CHAIRMAN GRIFFON: But from the phone calls, they're going down, that's a good thing.

MEMBER MUNN: Yes.

MEMBER KOTELCHUCK: Okay, good.

CHAIRMAN GRIFFON: Alright. So I think, otherwise, you know, are there any other comments on the cost analysis itself? I think people think we're kind of in the position that the Subcommittee is accepting that you can't do best estimates across the board. That's what I'm hearing.

MEMBER MUNN: Absolutely.

MEMBER RICHARDSON: Can I ask one question?

CHAIRMAN GRIFFON: Sure.

MEMBER RICHARDSON: Stu had suggested, and I definitely agree with that. But, nonetheless, coming out of the 10-year review, rather than the suggestion being to do them across the board, there was a suggestion for ways of stepping towards doing fewer of them, with perhaps the idea that the goal is -- you know, you would still have that as an objective. If possible, you would like to avoid the situation of complicating communication with the claimants. And there was some thought about ways of perhaps doing this, using the overestimating approach less. Is that still kind of just being thought about, or are there steps being taken for implementing that for certain types of claims?

MR. CALHOUN: This is Grady. We actually are getting ready to implement that for X-rays and missed dose. We just, I'm in the process of finding out now what the actual impacts are. Right now, there will be an

impact, but I need to know, other than just a percent, what kind of real impacts I might see on SECs, TBDs, everything in dose reconstruction. But these two seemed the most doable, the least impactful. So we'll definitely have something for you by the next meeting, and I'm hoping we can implement at least one of those before that, at least start down that road.

MEMBER RICHARDSON: Okay, great. Yes, I mean, I guess I like the thought that even trying to whittle away that.

CHAIRMAN GRIFFON: Yes. No, good point. Good one. Good point, David. And I guess we'll just continue, you know, you can just give us updates on progress on that front. Overall, I think this document is responsive, and the committee agrees with it.

MR. KATZ: So they could report out to the Board on this item?

CHAIRMAN GRIFFON: Yes. Okay. Next item. Geez, we're moving at lightning

speed today. Oh, yes, DCAS report on plans for evaluating claimant-favorability. We're still on the 10-year --

MR. CALHOUN: Well, basically, what Jim told me is it's kind of ongoing, so that's part of his 10-year review. That's what he reported to me.

MR. HINNEFELD: Yes, this is Stu. The recommendation out of, this came out of the quality of science section of the 10-year review, and it was saying, well, look, you make all these statements about how you're claimant-favorable and stuff, but you just kind of say it's claimant-favorable. Have you ever tried to really quantify in some method, you know, how favorable are you talking about?

Jim's view, his plan on this, and I didn't have a better plan, was to pick up the Health Physics journal that we published a few years ago. It was a special journal in Health Physics about our program, a special issue. And there were a series of articles

in there that describe aspects, the claimant-favorability aspect of dose reconstruction and essentially use that as a framework to start, you know, looking at, without a favorable approach, you know, what would you do if you were doing a central estimate or some other central estimate or what are the other possibilities that you would choose besides this approach?

So I think that's where he intends to go. Now, having a plan and a structure is a long way from being done. So this may not be something we'll have done in the near future, but that is what he's arrived at.

If there are other suggestions, because I know Jim was casting about a little bit before, you know, doing this. If there are other suggestions, we'd certainly entertain those, or, perhaps, a better time is when you've seen something out of that. It might be a better time to have suggestions. That's where we came from on our response to

that recommendation.

CHAIRMAN GRIFFON: I think that's where we were at the last meeting was, you know, we'd like to see something and then maybe react to it. But I don't know. Are there comments right now or --

MEMBER MUNN: No, it's one of these things that I find incredibly difficult, almost impossible to actually quantify. I don't know how you could quantify it, other than taking a claim that has been completed and doing it in a more meticulous, more careful way than was done to show that if other guidelines other than those used in this particular program were used, that this person would not have received favorable numbers. I don't know any other way to do that, and that doesn't seem feasible at all. So it seems to me that Jim's plan is as good as any. It can at least address the question.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Addressing the

question in a very thorough manner would be almost impossible to quantify. I don't know how you'd do that, since the whole idea is one of personal judgment anyway.

MR. HINNEFELD: Yes, if you're going to quantify the degree of favorability, then you have to have some sort of standard of what is correct.

MEMBER MUNN: Yes, right.

MR. HINNEFELD: You know, not favorable but just correct, you know. So then you'd have to have some standard to go by and, as far as I know, there isn't one.

MEMBER MUNN: No, the only thing you can say is, is this going to give you a larger number in the outcome? And that really is about the only standard we have.

CHAIRMAN GRIFFON: So I guess -- David, do you have anything on that front?

MEMBER RICHARDSON: I assume, based on that, that the focus is on the dose reconstruction aspects of favorability and not

the risk model issues of favorability.

MR. HINNEFELD: This is Stu, and that was our thought, yes.

MEMBER RICHARDSON: That might be made clear.

MR. HINNEFELD: Okay. I'll have to go back to look at the quality of science to see what it says. Sure, yes, we can --

CHAIRMAN GRIFFON: Or did this question go to two different Subcommittees?

MR. HINNEFELD: No, it only came here.

CHAIRMAN GRIFFON: Oh, it only came here.

MR. HINNEFELD: It only came here. And so we interpreted it for the dose reconstruction favorability.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: And I know the Science Working Group is, I think, taking up the risk model part of it, I believe.

CHAIRMAN GRIFFON: Well, that's

why I asked if the question was also posed to that group. Anyway, okay --

MR. HINNEFELD: I think they took that up. That was what they were doing anyway.

CHAIRMAN GRIFFON: All right, yes.

MR. FARVER: I think there's some general methods that are less claimant-favorable than others, such as Monte Carlo calculations. I think those tend to be less claimant-favorable.

MEMBER MUNN: But they are more science-based.

MR. FARVER: I'm just saying they are less claimant-favorable than if you just go with the dose conversion factors that are used sometimes where you just go straight calculation. I'm not saying one is right or wrong. I'm just saying that is an example of a method that is less claimant-favorable.

MEMBER RICHARDSON: Why is that?

MR. FARVER: Why is that? It has to do with the distribution of the dose

conversion factors. They use a triangular distribution, and when you do the Monte Carlo calculation it will pick, it usually winds up with a lower number than your mean number.

MR. SIEBERT: Well, this is Scott. In that case, what you're talking about dose -- DCF, it's not which is claimant-favorable. It's which is claimant-favorable and which is overestimating because you can pick the top end of the range and just apply that as a constant, and that's overestimated because we know the range is in this distribution.

MR. FARVER: I understand. But --

MR. SIEBERT: Whereas, the best estimate that we can use may still be claimant-favorable. Sometimes, I think we misuse the word "claimant-favorable," along with "overestimating." Claimant-favorable, in our program, is if we have two pieces of information that are as likely, we will pick the one that is more favorable to the claimant, such as solubility type. If we

don't know if it's Type M or Type S plutonium, whichever gives the larger dose to the organ of interest we will select. Now, if we have the specific information as to the material that was used, we will use the actual solubility for the material used, which would not be a claimant-favorable assumption.

MR. FARVER: Well, I guess I'm just going back to where I'm reviewing the dose reconstruction. I remember seeing the ones that were, that did not have the Monte Carlo calculation. They used the mean value of the dose conversion factor, and it was a very straightforward calculation. Didn't use the maximum, used the mean value. It was not called an overestimate because it was the mean value taken out of IG-001.

Then there were the ones that used the Monte Carlo calculations, and those tend to be less than the mean value for the dose conversion factor. I mean, do you agree with that? I mean, they would tend to be on the

lower end in many cases.

MR. SIEBERT: I would agree. The issue is, though, if you use the mean, it's an overestimate.

MR. FARVER: Okay. But from what I've seen on the dose reconstructions, an overestimate would be the mean is 0.8, but we're going to overestimate it and call the dose conversion factor of one.

MR. SIEBERT: That is an overestimate. However, using 0.8 would also be an overestimate --

MR. FARVER: Over the years in the dose reconstruction, if you're using the mean value, it's not normally classified as an overestimate in the write-ups. The one would be. You would say this is an overestimate. And so I'm not talking about correctness. I'm just saying this is the way it can be looked at by people. You're saying one is claimant-favorable, one is an overestimate, and then one is less than the other. I'm not saying

one is more right than the other. I'm saying that is an example of, right there is there different methods that give you three different results.

MEMBER RICHARDSON: Yes, so this is interesting because it frames the problem much more narrowly that I was originally interpreting it, and I think some of our discussion was turning around of you would have to know the truth and then claimant-favorability means any Probability of Causation value or distributions of values which is greater than the true. But, here, the other argument was that claimant-favorability only pertains to situations in which there are two well-specified options, the choice between them is unknown, and the claimant-favorable method is going to be to select the one which is going to lead to a higher Probability of Causation.

So then if that's your task, kind of specified within dose reconstruction within

those places where you have decision points to be made and there's two well-specified options, that's probably a narrower list than the journal issue of, well, we used the upper 99th percent bound, all those different things which one might view as claimant-favorable in some general sense but which are not these situations that you're making a distinction between overestimating or something else. Claimant-favorability, you're saying, is one sort of decision-making advice.

MR. KATZ: Right. But, David, I think the point of the review was this, I think, Scott's distinction, because the point of the review was how claimant-favorable, in a sense how much of an overestimate is being accorded in general for these dose reconstructions, and we just talked about why it's hard to quantify that or impossible to quantify that. It wasn't really -- the question from the review was not this more narrow distinction of when they make these

choices between two alternatives. I think the review was intending to try to get at how much sort of generosity is there in the dose accorded to cases compared to what it would have been if it had been estimated in the most scientifically precise way it could have been.

MEMBER RICHARDSON: So there Doug's point is a good one, because I assume what the argument was saying is that the Monte Carlo approach is the more scientifically valid one. It's the default choice, but it's not more claimant-favorable than choosing the mean of the distribution. And if I'm understanding that, that's because the distribution is not symmetrical.

MR. HINNEFELD: That's correct.

MR. KATZ: Sure. And that sort of points up what you're going to have. I think different sites you have different tools, so on one site you're using Monte Carlo because you have the tool, et cetera, set up to do that. And another site maybe you're using the

mean because that's sort of the level of data, et cetera, you have and the work you have to support dose reconstruction. So you're going to get a different answer to the question of: how claimant-favorable is the dose reconstruction? What degree of overestimate is every precise dose reconstruction? You'll have a different answer to that question at different sites.

MR. FARVER: I don't think it's site-specific, is it?

MR. HINNEFELD: Well, I think Ted was talking in general.

MR. KATZ: Yes, I'm talking in general. To answer that general question, the answer is different depending on which site this dose reconstruction was done for.

MR. HINNEFELD: I think the specific case of external dose conversion factors, though, those are published in IG-001 and they are the same everywhere.

CHAIRMAN GRIFFON: Yes, I mean, I

was also trying to think of the, you know, just in terms of if you get down to the method or the choice, you know, there's some other more qualitative ones, which is like placing the worker which comes up again and again and that question of the degree of favorability. I mean, we've had many cases where we dispute why it wasn't neutron-dose-assigned and it gets down a lot of times into the CATI interview versus their site records and were they really in a building or whatever. So I guess that's also part of how much, you know, favorability did you give in that situation --

MR. FARVER: There's many decisions along the way.

CHAIRMAN GRIFFON: Right, many decisions along the way.

MR. FARVER: It could go either way.

CHAIRMAN GRIFFON: Right. I guess we could, I'm not sure how to give input. You know, Jim is working on this. I'm not sure we

can really, you know -- but I would argue that some of these, you know, I think it's important to look at the degree of favorability of the methods, not just the final outcome. I think you were arguing different than that, though. But I think it is important. Some of these methods are used in a lot of different places, so if you look at them and you say, overall, it looks like almost all our methods -- I know the one example Scott gave is a good one because we always, well, I wouldn't say always, but we always see the solubility based on, if you're not sure, you select the one that is most favorable, and we've seen that again and again. So I think that's a good example where they are trying to do that. Then there's this one, which is a question mark maybe. So I think there's -- some of those things maybe can be considered.

MR. KATZ: I wasn't arguing --

CHAIRMAN GRIFFON: Oh, okay.

MR. KATZ: My just broader point was just that it's all about how much does it push the dose above what would be the perfect answer if you could get to a perfect --

CHAIRMAN GRIFFON: Oh, okay.

MR. KATZ: That's all I was saying. So I think looking at different methods is fine.

CHAIRMAN GRIFFON: Okay. Because I was thinking we can't just throw up our hands and say, well, we can never know the truth, so we can't answer this question.

MR. KATZ: But it sounds like Jim Neton's approach is to go at it at the most broad level with some major tools that are applied across the board that were addressed in the HP journal. That sort of sets a very large format evaluation for it. And then you may dig into, you know, more details, more particular tools, et cetera, as you go.

CHAIRMAN GRIFFON: Okay.

MEMBER KOTELCHUCK: Is the DCAS

plan on the website, or can we get a hold of it? As a new committee Member, can I see it?

MR. KATZ: He hasn't developed it yet.

MR. HINNEFELD: He's not written it in detail yet.

MEMBER KOTELCHUCK: Whatever he has.

MR. HINNEFELD: He has an action plan somewhere, but I don't know how specific it is.

MEMBER KOTELCHUCK: I just, you know, can't participate in the discussion --

MR. HINNEFELD: Soon, on our website, will be, in addition to the reports, which are there now, the five area reports and then there is a summary of what were called the priority recommendation, those are there now. In addition to that, it will have what we've identified as our action plan and then a status update, and then there will be subsequent status updates. Now, sometimes, a

status update will say, well, you know, what we originally described as our approach as evolved a little bit, so the actions that are written in our initial action plan should not be considered, you know, carved in granite. There could very well be some adjustment as things go on, and we sort of recognize what's doable and also what's going to be valuable. But, yes, that will be there soon. I can't tell you when, but we are working on that page.

MEMBER KOTELCHUCK: Okay. I'll keep my eyes open for it.

CHAIRMAN GRIFFON: Along those lines, is it fair to ask -- I think we sort of asked this last time and it's just not ready yet. But when it's ready, can you bring Jim's plan, NIOSH's plan how on you're going to set this to the Subcommittee? And then maybe we can have a more concrete discussion.

MR. HINNEFELD: Yes, we'll bring Jim, too.

CHAIRMAN GRIFFON: Bring Jim and the plan.

MR. FARVER: Is there some element you would like SC&A to look at and evaluate? We could have a report for you for the next meeting on the element --

CHAIRMAN GRIFFON: I think it's better to wait until we see what they've got and then maybe have your reaction.

MR. FARVER: I just didn't know when they'd have something available.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: You want to keep the ball moving. I appreciate that. I think it's better for us to wait.

MR. FARVER: Okay.

MR. KATZ: Do we have an extra HP journal that we could send David one?

CHAIRMAN GRIFFON: Yes, what issue is that in?

MR. SIEBERT: It's a special

Summer 2008.

MR. KATZ: We'll get you a copy of that, and then you can see where we're coming from, maybe.

MEMBER KOTELCHUCK: That would be great. I appreciate it.

MR. HINNEFELD: I think we got a stack. Anybody else want one?

MEMBER KOTELCHUCK: I'll be over there later today.

MR. HINNEFELD: Well, I may be in a different building. See if Chris can find one and put it on my desk, and you can swing by my office.

MEMBER KOTELCHUCK: I'd appreciate it.

MR. SIEBERT: Can we get autographed copies since DCAS people will be in the building?

MEMBER CLAWSON: Oh, come on.

MR. HINNEFELD: That's right, Chris is on vacation. Not sure if you'll be able to

get one today, but we'll see. I'll let you know.

MEMBER KOTELCHUCK: Fine, fine.

CHAIRMAN GRIFFON: Alright. Next item. And I will remind, as I was starting to do it myself, that we should each talk one at a time, for the sake of our transcript. Next item, the last item I think before lunch, probably, is DCAS goals/priorities for timely completion of dose reconstruction.

MR. CALHOUN: Okay, I got this. This is Grady. Over time, we have gotten better and better -- basically, we, as you know, at the beginning of the program we were somewhat overwhelmed with the number of dose reconstructions we had to get completed. And some of them languished for years, and that was not good. We didn't like it, the claimants didn't like it, nobody liked it. Over time, what we have done is we have incentivized our contractor to do better and better as far as the completion of both dose

reconstructions that are initially received from the Department of Labor, as well as those that are rework dose reconstructions.

So over time, for a while back, I'll say two or three years ago, we had a goal of a year that we wanted them to get them done in. And that has steadily gone down. A couple CPAF periods ago, and that's cost plus award fee, our goal or their goal was to -- when I say incentivize them, you give them money to do it. And so, basically, the goal was we wanted them to complete 90 percent or more of the dose reconstructions within nine months of them being received by us.

MR. HINNEFELD: And I would just mention a CPAF period is six months long.

MR. CALHOUN: It's six months, yes. So we can adjust that or we can change their goals and our goals every six months. We also have gotten to the point where we are really not the hold up, but we are really relying heavily on the timely receipt of

information from the Department of Energy because I believe they have 90 days to give us information that they receive that we need for as far as dose reconstruction, dosimetry records, X-ray records, whatnot.

So we came up a little while ago with a hybrid, and it said we want 90 percent of the dose reconstructions completed within nine months of receipt here at OCAS and we want them to provide 50 percent of the dose reconstructions within six months of the date that we received that last piece of information. So what happened was, we're starting to get dependent on when the last piece of information is received, and then we can start dose reconstruction.

So the overall goal of nine months has gone away, and the current goal is that they complete 90 percent or more of the dose reconstructions within six months of the date that the last piece of information was received. And they are meeting that goal. So

right now we are completing more than 90 percent of all the dose reconstructions we get within six months of that last piece of information that we received from the Department of Energy.

Also, as far as reworks go, reworks typically do not require, typically do not require additional dosimetry information. Most of our reworks are a result of additional cancers being identified, okay? So we also have a goal that we complete 90 percent of our rework cases in 60 days or less. And the last several CPAF periods, ORAU has been meeting that goal.

Now, if we have to request additional information, sure, the dates are going to go out and that will be noted when we do our evaluation. But right now the goal is 90 percent of them within six months or less of receiving that last piece of information and 90 percent of rework cases within 60 calendar days or less of getting that back

from Department of Labor.

So that's where we're at. I'm not sure that we're going to be able to get a whole lot better than that because, you know, right now that's pretty fast.

CHAIRMAN GRIFFON: I'm curious, you know, from my other life, we're often looking at these contracts and the incentives they have and almost always it's on production and safety. So in that light, have you considered incentivizing based on error rates? In other words --

MR. CALHOUN: We have that in there, too. We have that in there, too, and that's always been in there. I don't have that one right in front of me. I think it's 90 or 95 percent have to be provided to us with no errors, no comments.

CHAIRMAN GRIFFON: Yes, yes, yes, okay.

MR. CALHOUN: I can find that, but I don't have that off the top of my head.

CHAIRMAN GRIFFON: That's good. Yes.

MR. CALHOUN: That's always been in there, too, yes.

CHAIRMAN GRIFFON: Alright.

MEMBER KOTELCHUCK: You mean the DRR reports?

MR. CALHOUN: Yes, dose reconstruction reports.

MEMBER KOTELCHUCK: Because you were above five percent in the beginning of this graph that ORAU sent.

MR. CALHOUN: Right, right. But what you've got to see, these are technical errors, and that's all errors.

MR. HINNEFELD: That's all comments.

MR. CALHOUN: That's right. And so what happens is, there may be a little, yes, there may be a little back and forth. Sometimes there is, if this is a technical error or not. And, certainly, when Labor

sends us an additional cancer, we can't count that against the contractor.

MEMBER KOTELCHUCK: Okay. Thanks for the clarification.

CHAIRMAN GRIFFON: Okay. That's interesting.

MR. FARVER: But I didn't think you were tracking technical errors, I thought you were just tracking total errors, or are you tracking both?

MR. CALHOUN: That was that graph. Every six months, ORAU will put together the errors that we believe are errors, technical errors, and, to get their award fee, they have to be below X percent.

MR. FARVER: Okay. So you're tracking the errors you find.

MR. CALHOUN: We send them to them.

MR. FARVER: But don't you keep track of what you send them?

MR. CALHOUN: No, I don't have a

database. I've got a document for every one that's been issued. I don't database it.

CHAIRMAN GRIFFON: Yes, right. Going back to our former discussion, I was thinking the same thing. Are we, I mean, have they successfully met that award benchmark each time?

MR. CALHOUN: Yes, yes.

CHAIRMAN GRIFFON: So far, they've been under --

MR. CALHOUN: Yes.

CHAIRMAN GRIFFON: They've got the award every year, every six months?

MR. CALHOUN: Well, no, I won't say every year, every time. I'll say within the last few years, for sure.

CHAIRMAN GRIFFON: Okay.

MR. CALHOUN: Yes, I can't say off the top of my head for ten years.

CHAIRMAN GRIFFON: Okay, okay.

MR. CALHOUN: Yes, we beat them up pretty hard in the beginning.

CHAIRMAN GRIFFON: Okay, alright. Any comments on that?

MEMBER KOTELCHUCK: No, that's the way it is with any contracts, right? You say you got a grant, I'm going to do this. At the end of the year, you've done 85 percent of this. What do you do, right? What does the granting agency do? The answer is they put pressure and say, well --

MR. CALHOUN: And if you meet the goal, we're going to make it a little harder next time.

CHAIRMAN GRIFFON: Well, that's the continuous improvement angle.

MR. CALHOUN: Right now it's 95 percent.

MR. SIEBERT: Which is exactly what has happened with the timeliness issue. It has slowly moved downward.

MR. KATZ: The figure is 95 percent? Is that what you just said?

MR. CALHOUN: Yes.

CHAIRMAN GRIFFON: For error rates.

MR. KATZ: For errors?

MR. CALHOUN: Without a technical comment, yes.

CHAIRMAN GRIFFON: Any input? I mean, it seems like a reasonable path forward. David, any comments on this?

MR. CALHOUN: Dave, if you're commenting, we can't hear you.

MEMBER RICHARDSON: No, no.

CHAIRMAN GRIFFON: The only other -- you may have this in there, also, but you said 90 percent within nine months. Is there something like 100 percent within two years, or is there any --

MR. HINNEFELD: You mean for 100 percent?

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: We've actually kind of avoided 100 percent because you've got one oddball or some weird one.

CHAIRMAN GRIFFON: Is there anything like 95 -- I know that sometimes --

MR. CALHOUN: No, we go below that. We go below that. To get the most reward, it's 90 percent or more within six months of the last piece of information being received. If they get less than 90 percent in six months, then they get a lesser amount of fee.

CHAIRMAN GRIFFON: Right, right, right. Do you graduate it the other way, through 95 --

MR. CALHOUN: We have not. Ninety is the high right now. And we just went --

CHAIRMAN GRIFFON: I was just curious.

MR. CALHOUN: That's okay. And we're moving towards it, and we just got to the point where we went from nine months to six months.

CHAIRMAN GRIFFON: Because if you look at your other report, too, I'm looking at

the cost, and if you look at these numbers, I mean, 2010, it looks like 90 percent are the efficiency cases, you know. So to really creep down there and get these harder cases. I mean, I remember in the first five years those are the ones that kind of hung on. And I can see your point. You don't want to go maybe to 100 percent but --

MEMBER MUNN: You won't get to 100 percent, so it is --

CHAIRMAN GRIFFON: Right. That's what I'm saying.

MEMBER MUNN: -- it's counterproductive to establish unreasonable goals for any organization or individual when you know you can't meet it.

CHAIRMAN GRIFFON: I hear a lot of people say zero --

(Simultaneous speakers.)

MR. CALHOUN: You've got to say that.

CHAIRMAN GRIFFON: Yes, so you

graduate your award, you know.

MR. CALHOUN: Right, right.

CHAIRMAN GRIFFON: I don't know what the --

MR. CALHOUN: And we do. And we do.

CHAIRMAN GRIFFON: Anyway, my point being that 90 percent, you know, maybe since the more difficult cases tend to be the best estimate cases, you know, you're not even getting at those in this equation necessarily, you know. That's a crude, crude analysis.

MR. CALHOUN: I hear you.

CHAIRMAN GRIFFON: Yes.

MR. CALHOUN: And that's something that we could look at, but I'm real happy with six months.

CHAIRMAN GRIFFON: Oh, yes. Overall, I like the way you've done it, and I like that you got the error part in there, too.

MR. CALHOUN: I can tell you, just

from a meeting standpoint, I couldn't really say much as far as "my dose went down." I can tell you for sure that I got a lot less comments of: "why did you have my dose reconstruction for three years?" That's gone way down.

CHAIRMAN GRIFFON: Absolutely. That's good.

MR. HINNEFELD: Yes. And the phone contact to our PHAs is dramatically lower, dramatically lower than it was a few years ago.

CHAIRMAN GRIFFON: Good.

MR. HINNEFELD: Because most people were calling about status of their case, and we just don't have their case anymore.

CHAIRMAN GRIFFON: These are good indicators to be tracking. Good, good. Alright. Well, I think I'm satisfied with that. I think we can report back on that one, as well, to the full Board. Alright. Is there

anything else on that topic?

MEMBER MUNN: You promised --

CHAIRMAN GRIFFON: Yes, Wanda wants a chocolate break.

MEMBER MUNN: You're right.

(Laughter.)

CHAIRMAN GRIFFON: Yes. I don't think we should open up the next item with ten minutes before 12.

MR. KATZ: We want to be on time getting back.

CHAIRMAN GRIFFON: Yes, let's take lunch until one, but let's try to be back at one because we've got Jim and Paul joining us.

MR. FARVER: And we're going to go back to the next item after 1:00?

CHAIRMAN GRIFFON: Yes, the 1:00 item. Right. Which is the --

MR. KATZ: Looking at revisiting the whole dose reconstruction review process. We're not doing the Savannah River until after.

CHAIRMAN GRIFFON: Okay. Let's break until 1 p.m.

(Whereupon, the above-entitled matter went off the record at 11:52 a.m. and resumed at 1:01 p.m.)

MR. KATZ: We're reconvening after lunch break. This is the Advisory Board on Radiation and Worker Health, Subcommittee on Dose Reconstruction Review. Recheck on the line and see which Board Members we have. We should have Dr. Richardson returning, and we're also expecting Drs. Melius and Ziemer. Do we have any Board Members on the line?

MEMBER MELIUS: Yes, it's Jim Melius. I'm on the line.

MR. KATZ: Oh, great. Welcome. How about Dr. Ziemer and Dr. Richardson?

MEMBER MUNN: Well, good afternoon, Jim. Jim made it anyway.

MEMBER MELIUS: Yes, hi.

CHAIRMAN GRIFFON: We're happy to report that we worked up a dose reconstruction

review process.

MEMBER MUNN: It's all done now.

MEMBER MELIUS: Good. How about the rest of your work?

CHAIRMAN GRIFFON: Did you forward this to Jim, by the way?

MR. KATZ: I did.

CHAIRMAN GRIFFON: Okay, great.

MR. KATZ: Jim, did you receive, I forwarded, I hope I did, I forwarded to you and Paul, as well as the Members, a document that Mark had sent to me. It was a piece of the contract with SC&A, the original contract.

MEMBER MELIUS: Yes.

MR. KATZ: Okay. You got it. Great.

MEMBER MELIUS: I got it, yes.

MR. KATZ: Good.

CHAIRMAN GRIFFON: It should look familiar with the basic review, advanced review, et cetera.

MEMBER MELIUS: Yes. No, that's

from a long time ago. I'm not sure I could have rewritten it myself without looking but --

CHAIRMAN GRIFFON: Yes, I know.

MEMBER MUNN: Oh, you remember it, Jim.

MR. KATZ: So, Paul, have you joined us? Or David on the line? Jim, have you spoken recently to Paul about this?

MEMBER MELIUS: No. I emailed him, and then I can't recall if I heard back or not. So if I did, I would have erased the email but --

CHAIRMAN GRIFFON: Well, let's wait two more minutes at least for David.

MEMBER KOTELCHUCK: By the way, there are two Davids here, so David R. or K. would be helpful. Whenever you say David, I--

MEMBER MUNN: He jumps.

MEMBER KOTELCHUCK: I wouldn't say I jump, but I lean forward.

MEMBER MUNN: I like jump better.

MEMBER POSTON: So it's David R. and David Eileen.

CHAIRMAN GRIFFON: Yes.

MEMBER RICHARDSON: This is David Richardson. Hi. I was going to blame those long French lunches for the delay, but I guess we can't.

CHAIRMAN GRIFFON: Okay.

MEMBER RICHARDSON: By the way, that would have been a legitimate excuse. Just an extra hour, right?

MEMBER MUNN: Well, no, it's August. He isn't supposed to be here at all.

MEMBER RICHARDSON: That's true, yes.

CHAIRMAN GRIFFON: Okay. So we're going to, we saved this item for Jim and Paul. I don't know if Paul is on the line? Anyway, I think we'll start, and, hopefully, Paul can join us. We saved this item. This has been something we've talked about for a few meetings that we need to maybe reassess the

methodology that we're using for doing our reviews, doing our work on this Subcommittee. Also, I think we've raised this before, as well, the selection process, whether we, you know -- so I think maybe both those issues.

And just to help trigger the conversation, I meant to send this earlier but this morning we got the document that sort of outlines where we started with the method anyway. And it lays out the construct of the basic review, advanced review, blind reviews. And I guess I'll open it up. Jim, do you have, you know, some things you wanted to weigh in on? Maybe we can hear from SC&A, too, on what they think, how it's worked, how it hasn't, you know, why it hasn't worked?

MEMBER MELIUS: I guess the two things I have is -- one is a question. So where exactly do we stand with the blind reviews?

CHAIRMAN GRIFFON: That's a good question. We've done three or two?

MR. FARVER: Two.

CHAIRMAN GRIFFON: Two. We've done two. We promised to bring it on the agenda today. I'm not sure if it is on the agenda today, but we did say we would bring it.

MR. FARVER: You mean to discuss those reviews?

CHAIRMAN GRIFFON: Yes.

MR. FARVER: Okay, yes. Now, they were submitted to the Subcommittee what? Two years ago?

CHAIRMAN GRIFFON: Yes, yes.

MR. FARVER: A long time ago.

CHAIRMAN GRIFFON: And we took an initial look at them. I can't --

MR. FARVER: Yes, and I don't remember what was said or --

MEMBER MELIUS: Okay.

MR. FARVER: I mean, that's because of the time lapse.

CHAIRMAN GRIFFON: Right, right,

right, right. But we might -- yes. That might be one thing that we need to re-look at because we've done so few of them and --

MR. FARVER: Yes. Like I said, we've done two.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: And you might want to look and see if you like the process, if you want to change it and maybe try some more blind reviews.

MEMBER MELIUS: I guess my perspective on it is I think there's a number of things we're trying to achieve. One is can we make the process more efficient and more timely in terms of doing the reviews. On the other hand, at least for me and I think for other Board Members that participate, the basic dose reconstruction reviews are often very frustrating because we're often reviewing -- the way they go about it, they really don't take into account whether or not a particular dose reconstruction method is under review or

under revision or has been found to be, you know, not adequate, you know. An SEC has been awarded based on that particular exposure or inability to reconstruct that particular exposure. And I think that, while they're technically correct, they can give a misleading perception of the overall dose reconstruction process, and I think that what Congress was asking us to weigh in on was not just was NIOSH following the right -- you know, their own methods appropriately, but were the overall methods appropriate and scientifically sound? And I think, in fact, when we originally set up this process was why we included both what we called the advanced but also the blind reviews.

We set up this process at a time while NIOSH was still in the process of establishing how they were going to approach dose reconstructions in this program and around that time sort of made a change. The Site Profiles became much more living

documents, rather than, you know, sort of documents that were going to guide, you know, where those particular, the initial versions were going to guide the program for a significant period of time. Now, I think that was a good decision on NIOSH's part, but it sort of makes it much harder for the dose reconstruction reviews to be done and to at least have complete validity in terms of an evaluation of the overall program.

So I guess some of this discussion started recently when we were looking at sort of, How do we improve the efficiency of the dose reconstruction review? But I think, at the same time, we need to step back and think is there an overall approach that would be better and, you know, provide a more -- I keep hesitating. I don't dare use "scientifically robust", because --

MEMBER MUNN: Please don't.

MEMBER MELIUS: -- even at this distance on the phone from Wanda, I'll get in

trouble.

MEMBER MUNN: You know you'll get feedback.

MEMBER MELIUS: Yes. But I think we need to look again at the process and is there a better way of accomplishing it, given the needs of the program? On the other hand, I think that we've gone through a lot of SECs. There's been a lot of Site Profiles that have been updated. We've done a lot of the procedure reviews that have, I think, led to some, are leading to some changes in the program. So in some way, you know, maybe going forward, the dose reconstruction, sort of the background methodology that NIOSH is using may be much more stable than it has been over the last, you know, several years. But at the same time, I still think we need to figure out is there a way of doing it better?

Again, I think I said this at the Board meetings, this is a really a critical function for the Board to be doing, and I

think we need to be sure that we're providing adequate resources to it. And I think that if a change means additional resources going to this activity, then I think we need to, you know, do that.

MEMBER MUNN: So let me make sure I understand. You're addressing our process here in the Subcommittee overall? You're not just addressing what Doug had to say about our blind reviews, right?

MEMBER MELIUS: Correct, yes.

MEMBER MUNN: Okay, fine. Because I was thinking in terms of blind reviews when you started talking.

MEMBER MELIUS: No, I apologize. I should have clarified. I think one possibility is increasing the number of blind reviews, but what I was trying to get at is, well, what have we found in the blind reviews? Are they worth doing? Because those are a significant amount of resources go into those. They may provide a better, more comprehensive

review of an individual dose reconstruction, but they are very, you know, can be very labor intense. Obviously, we can't do as many of those as we could do of the current reviews.

MEMBER MUNN: No, but those impinge on our conversations that we had here earlier this morning.

MEMBER MELIUS: Okay.

MEMBER MUNN: We were discussing at considerable length how do you know that you've improved if you don't have really reliable data from previous activities, and those two blind reviews we have will give us at least a small baseline to start. But that's beside the point. The point is improving our process here.

MEMBER MELIUS: Yes. Well, and I think that's also important. Maybe I didn't say it, but what you were just saying, Wanda, is that, you know, we want to be improving the process and we want to be conducting our reviews in a way that we, you know, help NIOSH

improve the process. We're not just doing an outside scorecard and, you know, reporting to Congress what that scorecard says but rather that do it in a way that can contribute to helping NIOSH to improve the program.

CHAIRMAN GRIFFON: I think, I mean, looking back at the original language, you know, which I should point out is probably version nine or so that we went through on this language, but, I mean, one thing that it says and that I'm reading here is that the contractor shall evaluate and recommend whether or not assumptions, individual case assumptions, and assumptions applicable to multiple cases made for dose reconstruction are appropriate and defensible for purposes of this program.

I'm not sure that a lot of our -- here's the dilemma I see is that a lot of the reviews we do right now, in my opinion, end up being the basic review. Occasionally, we will get the more in-depth review where we're

drilling down to the assumptions. But even if we have a finding around the assumptions, it ends up going back to a Site Profile committee often. We don't really resolve it. So we have this thing. It's broader than the DR Subcommittee, I think, because we end up with these open Site Profile documents that are sort of waiting to be revised until those individual Work Groups, you know, resolve all the findings. And we have these drilled down findings from our committee that says, well, we want the Site Profile Work Group to address this, so we're, you know, we're spinning our wheels a bit on that capacity. Where we've tended to focus is on the basic reviews, and we're identifying a lot of the more quality control type of findings.

Anyway, that's just an observation from my standpoint.

MEMBER MELIUS: I don't recall the details or exactly how we came about this, but at one point we sort of did away with the

basic and the advanced --

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: -- and we combined the two, and I think we were well intentioned. There were some good reasons for doing it, but I think some of it was there was so much activity going on with the Site Profiles and changes and so forth that it made some of the advanced reviews difficult. But I don't think we ever went back and looked at that. And maybe that's another approach that would be helpful because we're aware of some of the issues of just, you know, limitations of just doing the basic reviews. And we really want to get, you know, the reviews going and be able to report back to NIOSH and to the Secretary what was, you know, yes, that they were doing an appropriate job of conducting these in terms of sort of basic quality, I guess you would call it, of the program. But I think that, I think, as we go by, what was contained -- the intent of both the advanced

and the blind reviews are, you know, sort of got lost in the effort to do all the basic reviews.

CHAIRMAN GRIFFON: Yes, I'm looking at, like, some of the bullets, Jim, and, you know, in the advanced review. You know, you start talking about looking at the Technical Basis Documents and looking at the approach for unmonitored dose. Well, the technical basis ends up being -- so one thing we're finding here is that we have certain findings and then we're actually referring them to the Site Profile committees that are working on that. And then, because of all of our focus on the Work Groups, the other Work Groups of looking at SEC issues, we're not getting to these, you know, so we're not getting any resolution there. Right.

And the other thing on the unmonitored worker, that's coworker models for the same thing. It's outstanding finding on the Los Alamos Work Groups, so we just sort of

defer it to the Los Alamos Work Group.

MR. KATZ: I'm just wondering, because, I mean, I haven't been here for the long haul, but in recent years I can't remember referring anything even to a Work Group.

CHAIRMAN GRIFFON: Well, but then that goes back to my --

MR. KATZ: To the Subcommittee.

CHAIRMAN GRIFFON: Yes, then that goes back to my other thing, which is a lot of them tend to be more basic reviews. So either we're not doing this drill-down --

MR. FARVER: Well, the basic reviews are what we've been doing for DOE sites.

CHAIRMAN GRIFFON: Oh, I thought those were advanced -- those are --

MR. FARVER: No, I'll call those basic reviews.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: Now, advanced reviews

where we actually go in and look at the Technical Basis Documents and say do we like the Technical Basis Document, that's more of what we do for AWEs.

CHAIRMAN GRIFFON: Yes, AWEs. Sorry. Right.

MR. FARVER: And that's simply because we may look at an AWE site because that might be the only case we look at for that site.

CHAIRMAN GRIFFON: Right. I agree. That's how --

MR. FARVER: And that's how it's been set up.

CHAIRMAN GRIFFON: And that's how it's evolved kind of is the --

MR. FARVER: Well, the basic review, we are going to, say, Savannah River. Over the course, we're going to look at a hundred cases. I don't need to do a hundred profile reviews or review it every time I do a dose review. So what we've done is we went

and reviewed the Site Profile and identified issues in the Site Profile. That way, we don't have to do it for every dose reconstruction review. And the lapse has been, the findings that we identify with the Site Profile are just kind of hanging out there.

CHAIRMAN GRIFFON: Yes, that's kind of what I just said. Yes.

MR. FARVER: And what would be useful is, and I'll use Savannah River as an example, it was last revised in 2005, I believe, the Technical Basis, okay? Since then, they're doing many things differently, according to their DR guide. So there's changes that are going on. Well, that's probably a bad example because that one hasn't been revised.

Okay. Let's pick another one, like INEL. Now, that's been revised. What we did with INEL is, a couple of years after we did our first Site Profile review, we went

back and looked at it with the changes made and wrote a revised Site Profile review that identified, okay, these issues have been closed, these issues are still open. And what might be helpful is if we go back and look at the Site Profiles that have been revised since we reviewed them and do an update and say, okay, these are the issues identified in the original profile review, these are the changes they made, and that will take care and they'll close out these items and these items still remain open. But we have never done an update, and there's been, you know, in some cases, five years lapsing between the time we did the Site Profile and a couple of revisions later we have a new Site Profile.

CHAIRMAN GRIFFON: Wanda and I --

MEMBER MUNN: I can see where this is going. It doesn't have to be a rocket scientist to figure out that this is going back to, well, why isn't NIOSH updating those TBDs? And we all know why NIOSH isn't

updating those TBDs. We have a choice here, and we have to help make it in this Subcommittee on behalf of the Board because there is not enough time to spread around for everybody to do everything that we want done. So if we want some of the TBDs to get updated, we have to be willing to accept what that means in terms of schedule for the other things that we have on the cooker.

So if we're going to do that, I would strongly suggest that we begin to discuss what sites we would like to focus on so that we can see the Site Profile updated to the point we feel that we can now use cases that are being done under that Site Profile. If that's where we're going, I just want to point out that this is what we're talking about here.

MR. FARVER: I started off with a bad example, I mean, because I know there are other issues at Savannah River and that was a bad example. But there are Site Profiles that

we reviewed, we'll say five years ago, that now have gone through re-revisions and, like, we're issuing them in 2010 revised. But we haven't looked at them since the time we initially looked at them to see, you know, were our recommendations, any changes made.

MEMBER MUNN: Well, solely individually I would like to say, if we're going to have you look at some more, I would like to have you look at something that's current.

MR. FARVER: Oh, yes, yes, yes.

MEMBER MUNN: I would not like to have you look at some interim revision and still have outstanding issues that are going to affect our --

MR. FARVER: No, no --

MEMBER MUNN: -- decision here with respect to cases.

MR. FARVER: No, I agree. I mean, ones that have been revised and are out there currently that have a considerable lapse since

our original review so that we just can get updated on what changes were made because, you know, we have this section in our reports, you know, Section 1.3, where we identify Site Profile issues. But some of those are pretty old, and some of those probably have been fixed.

CHAIRMAN GRIFFON: Have been resolved. Right, right.

MR. FARVER: But I didn't realize there was that big a lapse until I started looking and seeing when our review was and what's the current revision of the document out there today. And there's some cases, it's, you know, seven years. So that would be helpful if we could go back and look at those and say these things have been changed, and we don't have to address them anymore.

MEMBER MUNN: And this is our brand new set of priorities we would like to bring to the Board for how we're going to look at these.

CHAIRMAN GRIFFON: Yes. I mean, it's complicated. Those are the issues; I agree. I mean, I'm thinking also that, you know, that number one priority probably is for us, we're auditing as the program goes on, so number one is to, I guess, continually improve. On the other hand, you know, just because everything's, you know, you can look maybe at Idaho now and say, oh, the Site Profile looks great and they resolved all our issues from six years ago, so you have no findings. Just say that's the case, right? What happens to all the cases that were processed in that interim under the old Site Profile? I mean, we still may need to examine those. They may not have been --

MR. FARVER: That would be like a separate issue. That's still looking back at the dose reconstruction.

CHAIRMAN GRIFFON: Right, okay.

MR. FARVER: Instead of looking at the Site Profile changes.

CHAIRMAN GRIFFON: Right.

MR. FARVER: I try to keep them separate.

MEMBER MUNN: And we can't because it all muddies together.

MR. FARVER: I know, it does. It's muddy.

MR. KATZ: It's complicated, too, because in those cases, where you've made changes, you have a PER, and you have a PER review process --

CHAIRMAN GRIFFON: That's what I was going to say, yes.

MR. KATZ: -- but that's the next step on those --

CHAIRMAN GRIFFON: If it was a change that NIOSH deemed wasn't -- a PER wasn't necessary for and, yet, we find, you know, the Committee could find something differently, you know --

MEMBER MELIUS: I don't think we have a process that identifies a situation

where NIOSH inappropriately, you know, decides that they're not going to do a PER change. But if they decide it's not, they shouldn't do it, that we would only review them when they decide to do them.

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: And, again, I'm not sure there are instances where they've been wrong, but I think we're essentially operating, I think we're operating our dose reconstruction review process on the assumption that we rely on basic reviews, and so implicitly assume that all other parts of the program are working fine: the Site Profile reviews, the SEC reviews, that everything else, all the changes that take place in those documents, necessary changes and procedures and so forth are taking place in, that we don't have to worry about the quality of any of those when we're doing our dose reconstructions.

CHAIRMAN GRIFFON: I mean, I'm not

sure that's been our assumption in the past, but if you use the basic review model, that would be.

MEMBER MELIUS: Yes. I mean, that, operationally, is where we --

CHAIRMAN GRIFFON: That's kind of where we are, except for the AWE, which are the mini-Site Profiles, as I call them.

MR. FARVER: As I said, how we've been operating on reviewing the DOE dose reconstructions, we would review the documents that are referenced in the dose reconstruction, that's for version number, and see if they followed those documents.

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: We really don't even have a way of, an ongoing process to link up and identify those or follow up on what's happened.

CHAIRMAN GRIFFON: But, see my concern, Jim, is on the flip side, that we're not answering the fundamental question that

you laid out at the beginning.

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: Which is, you know, are these scientifically -- we're not looking at that side of it, the science side of it as much. We're looking at the quality side of it, I think, more, the basic reviews.

MR. FARVER: With the basic reviews.

CHAIRMAN GRIFFON: Yes. And we're counting on the fact that the Site Profile groups, Work Groups, et cetera, are picking up the scientific quality side of it.

MEMBER MELIUS: Correct. Yes, that was what I was trying --

CHAIRMAN GRIFFON: I mean, and I'm not criticizing any of them. We're all on these Work Groups, you know, and we've all been focusing on SECs.

MEMBER MELIUS: Right.

CHAIRMAN GRIFFON: So it's a prioritization.

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: So, I mean, from that standpoint, do you see any need to -- I mean, if we assume that works correctly, I'm not sure there is much need to change the focus, if this Subcommittee remains focused mainly on basic reviews, looking at quality control issues, along with these AWE sites where there are no Site Profiles really. There's, you know, there's sort of very small sites. We do more in-depth reviews on those. You know, do we need to alter anything, I guess is the question.

MEMBER MELIUS: Well, my question then would be are we doing what we're charged in the legislation to do? And I don't think we are. We're certainly not communicating that in our letters to the Secretary or what's implicit and what we're doing. So --

CHAIRMAN GRIFFON: No, I hear what you're saying.

MEMBER MELIUS: Yes, I think that

--

CHAIRMAN GRIFFON: I don't know if we have to fold back in the Site Profile information. Yes, yes.

MEMBER MELIUS: And I'm not saying we do away with basic reviews. I mean, whatever. I mean, I don't think it would necessarily require, you know, drastic changes. But I think we need to evaluate how good a job are we doing and is there a better approach. Part of that evaluation, you know, I think would come from the blind reviews. Obviously, we don't have anywhere near enough to, you know, evaluate the overall program from those. But I think, over time, they could, we could build up, you know, I think some good information from them. So do we consider increasing the number of blind reviews? Because we certainly have not done anywhere near what we originally intended to do.

CHAIRMAN GRIFFON: Yes. No, I

agree.

MEMBER MELIUS: So that's one. And then, secondly, is there some --

CHAIRMAN GRIFFON: The concern --

MEMBER MELIUS: -- a little bit about this at the last meeting. I'm not sure if it was during the meeting or offline or whatever. Is there some tasking that you could do to or the Board can do to SC&A to have them sort of follow up on some of the past dose reconstruction reviews? Maybe it's focused on a few sites just to see what's happened there?

CHAIRMAN GRIFFON: You mean --

MEMBER MELIUS: Yes, what ranges have taken place in the Site Profiles, all the other technical documents related, that would raise it, you know, do those changes raise questions about, essentially, how good was our original evaluation?

How many of those findings, you know, how many of those dose reconstructions

did we find that the dose reconstruction couldn't be done with sufficient accuracy, where that exposure was a major part of a person's site exposure? Where have the, you know, what changes have taken place in the message -- I mean, I think NIOSH has to be concerned, also, what about the changes from the 10-year review, the issues that were raised there?

CHAIRMAN GRIFFON: Yes, I'm trying to --

MEMBER MELIUS: And so doing that --

CHAIRMAN GRIFFON: -- follow you a little bit on that one element --

MEMBER MELIUS: -- on a sample, and I don't know whether it's on a site or whatever particular site would be, I think, could be potentially helpful. And, again, I'm mindful of what Wanda was saying that, yes, we've got limited resources and we're not, we don't want to be having the dose

reconstruction reviews being repetitious of doing what we're already doing under Site Profile reviews or procedure reviews or SEC reviews.

CHAIRMAN GRIFFON: Right. Well, let me just, you said a lot there and I want to maybe try to understand some of it. On the blind reviews, my one concern, I mean, I think it might be useful to do more of those. My one concern would be that if I fast-forward this a bit, I can see this situation where the resolution out of the blind reviews, I mean, if you're getting into a Savannah River blind review case, then if you start to drill down on that you're going to be addressing similar questions that were raised in the Site Profile, I'm guessing anyway, similar questions that have already been raised in the Site Profile matrix for Savannah River. Possibly. Maybe not completely overlapping, but I would bet some of them would overlap with the issues of the -- do you get what I'm

saying, Jim?

MEMBER MELIUS: Absolutely. And I guess I was thinking two things. One is just doing the blind reviews would be almost not as sort of a basic way of looking at dose reconstruction but as a way of evaluating where we are now. You know, if you told me that the two blind reviews you did, you know, required or will require so much resources that you weren't able to do what we originally intended with the blind reviews because it would have been repetitious of what had already been done by, you know, SEC evaluations, whatever, Site Profile reviews and so forth, then I think that, you know, one says something about what approach should we use for the blind reviews but also says something about sort of the state of the program.

It actually would indicate maybe, you know, maybe this combined approach of, you know, Site Profile reviews, procedure reviews,

et cetera, and basic reviews was working so you weren't finding anything new or different.

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: You see what I'm saying?

CHAIRMAN GRIFFON: Right. Right. So then it would justify --

MEMBER MELIUS: The nice thing about the blind reviews is that it does sort of validate the overall program of sort of, you know, scientific and technical reviews --

CHAIRMAN GRIFFON: Well, it might sort of -- I can see your point. Let me try to paraphrase, I think, what you said. Like if we do a blind review of a Savannah River case and we end up having a few quality findings and a few findings that were already on the Savannah River Site Profile matrix, then, basically, we've said, okay, we end up covering these in the one Work Group or in this Committee; and, therefore, this Committee can stay focused on the basic reviews and the

Work Groups doing the Site Profile reviews can stay focused on that. Is that what you're --

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: Yes, okay.

MEMBER MELIUS: Now, maybe it picks up a couple of things that weren't on the target --

CHAIRMAN GRIFFON: Right. And if it picks up a lot, then that tells us something about what we've missed in the past.

MEMBER MELIUS: Yes. Now, obviously --

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: -- how important those were and all that has to be taken into account. They may be important for some cases, not others, et cetera. So it's a --

CHAIRMAN GRIFFON: Okay. No, I think it --

MEMBER MELIUS: It's almost an evaluation tool rather than a basic part of our dose reconstruction reviews.

CHAIRMAN GRIFFON: I think we can certainly consider that, consider doing more blind reviews. To your second point that you were making about asking -- I was a little confused. You were asking SC&A to go back and follow up on the DRs to see, I think you were saying to see, since we had these findings and resolved these findings, what changes have been made? Is that what you were saying? I wasn't sure --

MEMBER MELIUS: Yes, what happened, how good were the basic reviews at picking up what turned out to be problems with a site.

CHAIRMAN GRIFFON: Oh, so if NIOSH made changes that we never, that never hit our radar --

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: -- then we didn't pick up those problems. Is that what you're saying?

MEMBER MELIUS: Yes. Or, like, in

some cases they're under active review. I mean, it's a dynamic here that may be hard to capture, but you go back and look at, I mean, how many findings became SECs? How many times in a dose reconstruction was an important part of the dose deemed to be technically acceptable, say, the dose reconstruction methods? And it turns out it was, you know, sort of technically acceptable but scientifically unacceptable.

CHAIRMAN GRIFFON: Oh, okay. It ended up being the basis for an SEC --

MEMBER MELIUS: For an SEC.

CHAIRMAN GRIFFON: -- later on. I see. I see what you mean.

MEMBER MELIUS: Yes, and we're reporting out that --

CHAIRMAN GRIFFON: That the case was okay.

MEMBER MELIUS: That the case was okay.

CHAIRMAN GRIFFON: Okay. That's

better, more clear the way you said it that time.

MEMBER MELIUS: Yes. Now, again, I'm not faulting, you know --

CHAIRMAN GRIFFON: Oh, no.

MEMBER MELIUS: -- what you're doing, but it is something we need to consider.

CHAIRMAN GRIFFON: It's a good way for us to measure. I mean, we've been talking about NIOSH instituting different quality metrics. I mean, this is a good thing for our Subcommittee to do, too.

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: To see where we're at, kind of.

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: I have no problem relaying this to David Richardson.

MEMBER MELIUS: I thought, in the discussion at some point, I can't remember where we -- either John Mauro or John Stiver

was suggesting something like that.

CHAIRMAN GRIFFON: Oh, no. Now, you just took -- no, I'm just kidding.

MEMBER MUNN: All the fun out --

CHAIRMAN GRIFFON: Here we were giving you credit for a good idea. No.

MEMBER MELIUS: No, no, no. It probably just turned into a bad idea.

MR. STIVER: Hey, now.

(Laughter.)

MEMBER MELIUS: Oh, they are on there. Well, that's nice about a phone call.

CHAIRMAN GRIFFON: I think definitely those two points could be useful for our group to consider. And the one, well, both would involve tasking SC&A, additional tasking of SC&A, but, I mean, anybody else on the Subcommittee want to weigh in? I felt like I was kind of talking to Jim there for a while.

MEMBER MUNN: Well, you were. You're supposed to.

CHAIRMAN GRIFFON: But, Wanda, please, we want to hear from Wanda. Come on.

MEMBER MUNN: No, that's quite alright. The discussion is quite robust enough.

CHAIRMAN GRIFFON: She wishes you were here, Jim.

MEMBER MELIUS: I'm sure I'll hear about this in Denver.

MEMBER CLAWSON: I was trying to follow along there because it seems like what you're saying is we kind of divide up the findings because, as a Subcommittee for the dose reconstruction reviewing this, if it's a quality assurance issue, then it would still fall under the Subcommittee. But if it's a Site Profile issue, then it would go to the Work Group that's over that Site Profile? Is that, basically, what I was hearing or --

CHAIRMAN GRIFFON: Well, yes, I think he was saying let's stop for -- not stop but do these blind reviews and possibly just

look back to see. I mean, if we do the blind reviews and it turns out that, you know, most of the scientific issues, as I would call them the more drill-down issues are being captured in the Site Profile Work Groups, then, overall, as a Board, we've got it covered. We don't have to, you know, we don't have to expand our scope on this Subcommittee. We can stick with the basic reviews for the DOE. I'm talking the DOE side now, the basic reviews.

MEMBER MELIUS: Yes, I think we're assuming that these are all working appropriately.

CHAIRMAN GRIFFON: In our current scheme.

MEMBER MELIUS: Yes, current approach. And I'm not saying they're not, and I think they're working, generally, well. But, I think we, our charge isn't, you know, what really is the overall quality of the dose reconstructions. And I think we need to have a better way ourselves of evaluating whether

this overall approach is doing, you know, a good job of doing that because we're supposed to report back to the Secretary and to Congress on how well it's doing overall, not how well are the basic, you know, dose reviews going.

CHAIRMAN GRIFFON: I agree with you, Jim.

MEMBER MELIUS: Yes. And I think it's been long enough that we need to sort of step back and evaluate are we doing an adequate job?

CHAIRMAN GRIFFON: And the second point, Brad, I think that Jim was making, and the second time he explained it to me it made a lot more sense, was to look at, sort of in aggregate, the DR reviews that we've completed and have SC&A -- I mean, I'll add some to your idea, Jim -- to break it out by site and to look back and see what's happened at each one of those sites, be it a PER review or an SEC or modifications in the way dose

reconstructions are done. And I would say we can probably pick off, you know, at least focus on the bigger, we have a lot of Hanford's, Savannah River, you know, the bigger sites. And then just do this sort of follow up to see if, in fact, you know, if we did our reviews and said that, you know, it was an adequate dose reconstruction and then later it ends up being added to an SEC for not able to reconstruct the dose with sufficient accuracy, it's getting at that scientific question that we might have missed in our basic review. So is that --

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: Yes, yes.

MR. FARVER: But we're going to miss those in our basic review?

CHAIRMAN GRIFFON: Right, right, right. So we're just saying it would be a good, it would be good for us to point that out and then make sure it's at least captured in the Site Profile committees that are

established or wherever. But we also don't want to give the wrong impression that, I guess looking at the numbers, right, Jim, that all these were adequate?

MEMBER MELIUS: Yes, and I think we're not accurately reporting back on what the overall --

CHAIRMAN GRIFFON: Charge.

MEMBER MELIUS: -- charge that we have.

CHAIRMAN GRIFFON: That's a little trickier.

MEMBER MELIUS: Yes. And, again, I don't think it's, you know --

Ms. BEHLING: Mark, this is Kathy Behling. Can I make a comment?

CHAIRMAN GRIFFON: Certainly, Kathy. Good to hear from you.

Ms. BEHLING: Okay. Just a few things to consider and to maybe give some guidance to SC&A. First of all, the one thing I would ask, because of the process that is

currently in place, we have to assess is there anything that's falling through the cracks? And at least based on where we are today and as we've been discussing, the dose reconstruction process has been identifying that if there are SEC or Site Profile issues out there that are not going to be addressed in the dose reconstruction report but they are, hopefully, being handled by the Work Group and the TBD review group.

So I guess I don't, at this point, see anything that's really falling through the cracks based on the overall process we're working on right now. But if we are going to look more closely or have SC&A do more of the blinds, I'm questioning how that's going to really maybe identify some of the things that Dr. Melius is pointing out because, currently, what we have done with the blind reviews is we're using, we've actually did it using two different approaches, but our primary approach is to use the same procedures, the same

guidance documents, as NIOSH is using and reconstruct just as they would, using their procedures and technical documents. We also decided to put a second approach in there, which is a more what John Mauro would call a health physics practical approach to a dose reconstruction, and we've made a comparison.

So I'm just wondering if the process that we're using for the blinds that we've established to date is still going to be appropriate to capture what Dr. Melius is suggesting.

CHAIRMAN GRIFFON: Yes, and I think -- good point, Kathy. I mean, I remember John describing the two different approaches in his back of the envelope approach versus the, you know, which is based on basic fundamental health physics principles, right? Yes. And, you know, it seems like the first one you described where you're using all the same procedures and everything is more of a quality control blind

review than -- you know, it doesn't get at the other issues.

MR. FARVER: Something that might be useful, and Kathy has worked on a couple of these, is where we go back and look at cases that we evaluated once and then has been through the resolution process and NIOSH had made changes, and it's been updated. And we go back and look at updated dose reconstruction and then report on what the changes were. Now, that might be useful because a lot of times we'll see that, yes, they added in those dose and took away this dose or the total dose went down or went up but just never really clear exactly where it came from. That's one of the things we'd evaluate and say, okay, side by side, this is what the original was, this is what the changes were, and then we describe exactly what those changes were.

CHAIRMAN GRIFFON: And whether the changes were scientifically defensible? Is

that --

MR. FARVER: It goes back -- if they were changed, why were they changed? In other words, was it a technical basis change? You know, what led to that? Was it a change in the neutron/photon ratio numbers or something like that?

CHAIRMAN GRIFFON: But it doesn't get into the underlying assumptions necessarily, like was that change --

MR. FARVER: If you -- that's correct. Because that would be --

CHAIRMAN GRIFFON: Under the Site Profile.

MR. FARVER: -- a Site Profile issue.

CHAIRMAN GRIFFON: Right, yes.

Ms. BEHLING: That's a good point that Doug makes, and I have looked at some of the re-works. I've actually, I think from the eighth set I went back and provided two reports on two different tabs, and we actually

looked at the re-work and determined if all of our findings were taken into consideration during that re-work. And I know that has been an issue that we've questioned.

Once we have these dose reconstruction reviews, what happens to those findings? Are they put into the case file so that if there is a re-work those are taken into consideration during that re-work? And so I do think that that is, would also be an interesting and maybe enlightening task for us to do.

And the other question that I would ask of NIOSH, and especially since I'm close to this, we just have been following up on PER issues, and one of the questions I guess I would ask is: when does NIOSH, for these TBD changes, decide that they're going to put out a PER? And I'm asking that, I guess, in light of changes that have happened for, say, example the Hanford Technical Basis Document, and there have been some significant

changes in that Technical Basis Document, neutron to photon ratio issues. At what point does NIOSH say now we're going to issue a PER, or, in the case of Hanford, are you waiting because of SEC issues? I guess I'm not clear on that.

MR. HINNEFELD: Well, this is Stu. And I don't know that I can speak specifically here, but I think this would apply to Hanford. As nearly as I can recall, since Hanford has been reviewed, there have been technical issues on the table that have not been resolved and are still in resolution. I believe that's still the case today that there's an SEC that will alter, you know, dose reconstruction approach, and I believe there still may be some remaining findings that go past 83.

And so our intent is to do the PER once. And so while we may have made some changes in neutron to photon already that would perhaps warrant PER, knowing that we

have these other findings on the board and we will be making, in all likelihood, additional changes, which would then prompt an additional PER if we did one now, we generally hold on to that.

So our idea is to do a PER once. And there may be some interim changes on the way to a final change that don't get one.

Ms. BEHLING: I understand, and that makes sense. Thank you for that clarification.

MR. KATZ: Can I raise a question about that? Jim, this relates to your sort of second plank, the first being the blind dose reconstruction, the second plank being how dose reconstruction reviews relate to quality of science or whatever versus what the Site Profile review has generated. It seems to me what we might need for the Board, I would think, Jim, you're concerned with the Board sort of accurately accounting for that question of how the science was and is

developing, I mean, it seems like then what we really need is for the Work Group responsible for a Site Profile review to be feeding in an account, in effect, related to when we have reports for the Secretary but an account for that particular site of that site resolution process and what quality of science matters were addressed.

I mean, in the end, they're always remedied one way or the other, but that's sort of the other part of the story. And if the blind reviews don't indicate that that system is completely broken, then, you know, reporting on that story is sort of the other piece, as to how good the science was.

MEMBER MELIUS: Yes. I mean, I think what I'm trying to get at is there some way of one sort of making sure that all this, that we're connecting these different, you know, scientific and technical review functions in a way that assures that we're reporting on it correctly but, more

importantly, that we're giving the appropriate feedback to NIOSH on what they should be doing and so forth. I think we've broken it up so much that we really have no way of keeping track of all that's going on, and I think we have all these different sort of review processes that don't communicate with each other very well.

MR. KATZ: Yes. But, in a qualitative sense at least, I think we all probably have a pretty good sense that there's a lot of change that gets done to TBDs as a result of the SEC process of the Board's and the Site Profile review. SEC process being much more energetic just because those are always a priority, to address the SECs. But we have a general sense that there's a lot of PERs, and a lot of TBD revisions are generated out of those processes.

MEMBER MELIUS: Yes. And I think we start out under the assumption that the dose reconstruction review process by the

Board would be the way that those would all be, you know, would reflect all of that, and, currently, it doesn't. You know, in fact, it doesn't reflect most of the changes that take place. The changes that have been engendered by the dose reconstruction review are, I want to say minor, but they're certainly less than what's happened from Site Profile and SEC reviews. Now, I think that's expected in a program as technically and scientifically complicated as this, so it's not something where NIOSH has failed or the Board has failed. But I think we need to, if we think we've made all these improvements, we need to have some way of evaluating that and that we make sure we're not missing important issues and that we're reporting on it correctly. And we got to be able to do that with, you know, without having to start all over again and, secondly, without a huge amount of resources going into that.

MEMBER MUNN: Well, we can

certainly do that by identifying what we're going to use as a sampling process to sort of keep score, which is probably as good a forum as any for the decision-making on what we might use for a sampling process. I personally would suggest that we use no more than five sites, and that may even be too large, depending upon which sites you're going to choose. If you choose the big five, then you're cutting off another five years of activity and you don't want to do that. So probably two of the large sites and two of the smaller sites would be, in my mind, a reasonable place to start to look at these things. It's just a question of choosing which ones where the most activity might have taken place so that you could say that these are not the most active site groupings that we have, at least. They are among the most active site groupings. That way, you can, in some small degree, bound the other activities by the Board that have been very active.

CHAIRMAN GRIFFON: I guess I missed that completely. I'm not sure why we're sampling five sites.

MEMBER MUNN: We had spoken earlier, and we didn't decide to do this, but we talked about the possibility, you know, if you take a look at these things and if we look at one of the sites, we look at some of the cases, look at some of the sites, and we identify where --

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: -- the findings have been identified, and have these findings resulted in changes in the Site Profile, changes in the procedures, where did the changes occur? If you do it by site, then you have a handle on how you're doing it. As a matter of fact, I don't know how you would do it if you didn't do it by site. How would you develop any kind of statistic at all if you didn't do it by site?

CHAIRMAN GRIFFON: Right. No, I

thought you were suggesting to limit it to just a few sites, to look at it that way. I didn't know Doug was suggesting that.

MEMBER MUNN: Yes. I'm saying that if we're going to report in the 10-year review that our process has worked in this regard or in this regard or whatever regard we want to choose, whatever way we want to look at it, if we've chosen to look at it in terms of we've taken a look at what changes our program has instituted in each of these cases and we consider those to be emblematic of the entire program because they are either typical sites or larger sites. I'm just looking at how we're going to get to making some judgment.

If you are going to make some statements for the Secretary and for the world to see, in terms of our view of what we've done in the program, then we have to have something to point to. We have to have some kind of data that we have to put together. We have agreed that we do not currently have a

mode for tracking the data. If we're going to build such a look, if we're going to have SC&A go out and take such a look, we need to tell them what to look at. That's, essentially, what I'm saying.

MEMBER MELIUS: Yes. But what I would say, I mean, I understand what you're getting at, Wanda --

MEMBER MUNN: I'm glad you do.

MEMBER MELIUS: -- but I would step back or sort of a different road. I'd rather design or modify what we're doing so that in the future, as we go forward, we can sort of, our reporting can better reflect the technical and scientific, our evaluation of the technical and scientific qualities of program. I think where at least I was talking and Mark, I thought, was talking about sort of the sampling of different sites was let's at least take a look at a few sites, maybe even one to start with, where there's been significant Site Profile SEC review whatever

and a significant number of dose reconstruction, individual dose reconstruction reviews, and sort of look back at that universe of dose reconstruction reviews and then see how that interacts with what's happened with the Site Profile procedure, et cetera, reviews that have taken place.

CHAIRMAN GRIFFON: I was sort of proposing maybe your second idea, not your blind reviews but take your second idea, Jim, and try it at one or two sites --

MEMBER MELIUS: Yes.

CHAIRMAN GRIFFON: -- and see what we're -- yes, yes.

MEMBER MELIUS: See what's -

CHAIRMAN GRIFFON: Not necessarily to --

MEMBER MELIUS: Maybe it's not going to be worthwhile. I don't know.

CHAIRMAN GRIFFON: Yes. And I wasn't necessarily proposing that that could be extrapolated then to the whole complex.

MEMBER MELIUS: No, no, but it might tell us how we could improve the process. And I think some of the improvement of the process is maybe a way of trying to link back to provide some better linkage between or communication between what's happening with the Site Profile and the individual dose reconstruction reviews, the procedure reviews, et cetera. Because we need some way of bringing that together. Is that the Site Profile Committee, is that the Dose Reconstruction? I don't know. Or is it some other Super Committee, Super Subcommittee or something? I don't know. But I think we need to develop something and start looking at it.

MR. KATZ: So I was just saying what I thought Doug was saying earlier is the one thing that comes to mind when you do that, say you do it for Savannah River Site, is that all the dose reconstruction reviews that were done were basic dose reconstruction reviews, right? And so they will have implicitly

assumed that the methods were okay and tested, so they're not going to pick up the same kind of issues that Site Profiles would have --

CHAIRMAN GRIFFON: Yes.

MEMBER MELIUS: Are the conclusions of those, if there were huge changes in the Site Profiles and SEC, et cetera, then they're giving a false impression.

CHAIRMAN GRIFFON: Yes, that's --

MR. KATZ: I understand that.

CHAIRMAN GRIFFON: -- in terms of the way we --

(Simultaneous speakers.)

MEMBER MELIUS: There's a dynamic to this that, again, it's a good dynamic. NIOSH, with some help from us, is trying to improve the process. So, yes, the changes are good, but we need to think of a better, an evaluation needs to reflect all that goes on in the program, not just the basic dose reviews.

CHAIRMAN GRIFFON: Right. I think both those notions, the blind reviews and this look-back, or whatever a better term there might be, are useful ideas. I think Kathy raises some things we might have to think through on the blind reviews. I think the first step might be to resurrect the couple cases that we have done and then have a discussion around here of what, you know, if we're going to select more, what's the model we should use, you know, what's the best model.

MR. FARVER: Part of what I'm seeing is, when we do a DR review, we're looking at something that was done maybe a year ago. We're looking at a particular time frame and giving you a snapshot of what was done. And I think what's being asked for is, okay, I want to know how things have evolved: how have changes been made, what changes have been made, how would that have affected this case if you looked at that happened a year

ago? And even if there's TBD changes and even if there's SEC issues that have resulted in changes, there may not be a PER issue because they're waiting for additional changes. So it's a moving target, and, you know, all we can do is provide you a look at it at a certain time frame. I don't see how we can incorporate all the changes that could be made when they haven't been made.

CHAIRMAN GRIFFON: Right. But I think, you know, the look-back idea is to also get at the question from our Board standpoint of what we're reporting on in the overall scientific validity of the cases. We don't want to have amongst those, say we end up with 500 cases and say 100 of those eventually ended up in an SEC, I would say we eliminate those from our statistics, you know. We look at the -- so I think that's what Jim is getting at when he's saying the look-back. It's mainly to see what happened later.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: And then if those issues were captured, you know, are they still on the table in the Site Profile review or did they get folded into an SEC? I understand there's going to be some gray area in the middle sometimes, you know. That's why I was saying maybe we try one site and ask SC&A to do this, and then we can, you know, the devil is in the details, I guess. We can see, you know --

MR. FARVER: So we look back at past cases that we've already looked at or look back at new dose reconstructions?

CHAIRMAN GRIFFON: Look back at, you know, like a group of, say, Hanford cases --

MR. FARVER: That we've already looked at once?

CHAIRMAN GRIFFON: Yes. And then say, okay, you know, just by the basics of the cases, you can identify whether they would now be in, or they got added to an SEC or

something like that or, you know --

MR. FARVER: You could determine if they would be added to an SEC?

CHAIRMAN GRIFFON: Right.

MR. FARVER: But they may have used different assumptions under a previous TBD.

CHAIRMAN GRIFFON: Right.

MEMBER MELIUS: That may be, but we need to be able to note that somehow.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: You may not know --

MEMBER MELIUS: We may not know a lot, but we know it's something more now and it wasn't -- and the approach we were using for the basic reviews is missing that, and we need to see how significant that is.

MR. FARVER: I'm just trying to --

CHAIRMAN GRIFFON: Make sure -- yes, I know. Make sure, as Kathy said, it doesn't fall through the cracks completely. If it's captured in other facets of the

program, it's not a problem. I mean, it's not like --

MEMBER MELIUS: Well, it is when we're not reporting on it.

CHAIRMAN GRIFFON: Right, right, right. Yes. That's right. That's right. But I meant it wasn't a problem in terms of, I feel like, you know, I don't think everybody accepts that what you guys have been doing are basic reviews that are looking mainly at the quality. It's not like we're going to go back and say, well, SC&A missed the boat completely on these reviews. You know, that's not the thrust of this. But we want to make sure that we're not misleading in our reporting out on the overall --

MR. FARVER: So, I mean, I can understand. We go back and look at cases and we could tell you what changed from one point to what changed to another point if there have been changes. But if it was, let's say, a Hanford case that was previously done under a

TBD that's two revisions behind, and now there's a new TBD out that would impact this case and may even have a PER issued at some point, we're not going to necessarily know what's going to affect that case because nothing has changed yet.

CHAIRMAN GRIFFON: Oh, it hasn't had a PER issued yet.

MR. FARVER: Right.

CHAIRMAN GRIFFON: So I think those are the ones you'd put, you know, a gray area or whatever. You characterize them that way because you're not sure. And I would argue that a lot of those, you know, you're going to have to use some judgment. But, you know, if they're between 45 and 49 percent and they had significant changes and no PER has been issued yet but seems like there might be, then you say this is in limbo state.

MR. FARVER: So we would be looking at older cases, well, two years old, well, anyway, an older case and comparing it

to current documentation?

CHAIRMAN GRIFFON: Yes, yes. And maybe we don't start with a Hanford. Maybe there's too many cases.

MR. FARVER: Whatever.

CHAIRMAN GRIFFON: But, you know, I'm not sure --

MR. FARVER: It could change because we've been comparing it to whatever they used and referenced in their dose reconstruction.

CHAIRMAN GRIFFON: Oh, yes, I know, I know.

MR. FARVER: So now we may be comparing it to a complete set of different documents. I'm just trying to figure out --

MR. KATZ: You are comparing, I think you are comparing like the current documentation, the TBD --

CHAIRMAN GRIFFON: Well, you're not doing a new review or anything.

MR. KATZ: -- documentation would

encompass SEC changes and so on --

CHAIRMAN GRIFFON: Right.

MR. KATZ: -- if that's already been incorporated. But you'd try to choose those, right?

CHAIRMAN GRIFFON: Yes.

MR. FARVER: I'm just saying, well, we'd be looking at new technical basis, probably. There's new procedure revisions, new OTIB revisions. So we've got a whole, like I said, a whole set of different documents we'd be looking at.

MEMBER MUNN: And how would you not have to do it again?

MR. FARVER: You would.

MEMBER MUNN: You would have to do it again.

CHAIRMAN GRIFFON: Why would you have to review the case again?

MEMBER MUNN: Because you wouldn't know how severely those changes would have affected this calculation.

MR. FARVER: Right. You'd have to go back and look at each document and compare it to each calculation.

MR. KATZ: But that's only if you want to do quantitative analysis of the case. If you just want to address, qualitatively, whether there were science matters that changed that impacted that case, then you wouldn't have to do that. You would just have to identify --

CHAIRMAN GRIFFON: I think the first step is to put them in a bin sort of, yes. Don't do the quantitative.

MR. KATZ: And you're just identifying cases for which the science changed from the last cases.

MR. FARVER: So any kind of document has been rev'd, there was probably a scientific change, which means it probably affected that case.

MEMBER MUNN: Maybe, maybe not. It may not have entered into the case at all.

MR. FARVER: It may not. But if there was a scientific change to it, and that, say, OTIB is referenced in the dose reconstruction, then it's likely that change affected that dose reconstruction.

MEMBER MUNN: An awful lot of those changes are just a change in building usage, for example, which I suppose you could identify it by stretching it by saying that's a technical change if people were in that building. But a wording change and the size of the area involved, you know, it's --

MR. FARVER: It would depend on why it was changed.

MEMBER MUNN: Yes, exactly.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: Well, yes. I mean, I think that's why we would definitely pick like one site first and try this. But I think the idea is to try to bin these things and say, okay, it appears we've got ten cases that were between 45 and 50 percentile and had

a significant technical change since the time we reviewed it and no apparent PER. You know, we've got ten cases that had a PER, you know, a PER for this issue and were re-run that were between 45 and 50. You know, we have 20 cases that clearly fit into the SEC definition that came later after we reviewed them. So you get a sense of what's happened with all, you know, 40 cases from Hanford since we've reviewed them in the first hundred or so. I think that's what Jim is trying to get at. I think you stop short of the quantitative, you know, and you can come back to us and say, to really give you an answer on this it would take a lot -- I mean, maybe that's what you're going to conclude, to really give an answer on this would take a lot of work and maybe spinning our wheels here.

MEMBER MUNN: Is this really what we want to find out, or is what we want to find out whether the program overall is working and the appropriate changes that need

to be made are being made in the program? Is that what we're trying to determine?

CHAIRMAN GRIFFON: I guess this is to test our own process, you know. Jim is challenging to say, if we're only looking at QA issues, somewhere it has to be picking up the scientific validity of the dose reconstruction process. That's our charter.

MEMBER MUNN: I understand that. But do you understand what I'm saying when I say is the answer that this process we're talking about the answer that we really -- are we asking the right question? Is that the question we want answered?

MEMBER MELIUS: Well, Wanda, I think the idea is to look at what information we have, what we've done, in a way that can help us decide what the best approach is and the most efficient approach for doing this. And I think it can be done fairly readily through, you know, through this looking back at our past basic reviews and sort of

providing an update of what's happened since then. I think we're going to have to do it on a trial basis and see if it works, maybe fine-tune it, and see if some, the idea is to advise in an ongoing way some better way of reflecting the overall reviews that go on in terms of how we're evaluating the program as charged in the legislation.

MR. FARVER: I'll make a suggestion. Now, later on, we're going to look at the Savannah River findings, and I think there's about 56 of those that we looked at. Because we're taking this by site and resolving our old findings, how about if for the next set, and I don't know what site it is, it might be Rocky Flats, we go and, along with those review of the findings, we look at what technical issues have changed since we looked at the Site Profile and things and write a report on that. Plus, we could even include SEC impacts and include that all in the report. And this way, we'll get several

sites as we move along.

CHAIRMAN GRIFFON: Well, I would just say let's do that for -- it's a good idea to see how it goes and see, yes. I think that's what Jim was basically asking for and leaving it up to us to think about what site or how to test it, yes.

MR. FARVER: If we don't like Rocky Flats, we can pick another one.

MR. KATZ: Well, I guess I would just suggest you might want to pick, to start with, to try to figure out if this method works and how it works and how it might need to be refined, if it does, I mean, you might want to choose a site with not an overwhelming number of cases. It makes the work manageable for the pilot effort.

CHAIRMAN GRIFFON: Well, he was saying pick a subset of the -- if you were only going to do the Rocky Flats or the next one to come up --

MR. KATZ: No, no, whatever, any

site. I'm just saying just choose one with a manageable number of cases so that you make this pilot effort --

CHAIRMAN GRIFFON: Yes, don't need one with a hundred cases. I agree.

MR. FARVER: Well, it would be less than 57 findings or 56 findings because it would be the next group down. And if it's a certain site that we'd rather not do, then we can pick a different one. I'm just trying to find -- I don't know what the next site was. But somewhere along the lines of --

CHAIRMAN GRIFFON: Yes.

MR. FARVER: -- the findings that were in the 10th to 13th set that we're going to resolve anyway. Let's just go ahead.

MR. HINNEFELD: This is Stu. And just as a maybe related comment, I don't know if it matters to this discussion whether the findings that have been previously identified, you know, the extent of resolution that has been attained because at Rocky Flats, today,

the findings that were raised during the discussion have been largely resolved in the documentation and revisions to documentation have been provided. So that is going to be a relatively unusual situation. For Savannah River, for Hanford, for the gaseous diffusion plants, for most other big sites, there are outstanding issues in, you know, that are out there in the process of resolution, and the ultimate revisions of technical documents, either Site Profile or OTIBs, has not been accomplished because the resolutions have not been accomplished.

But at Rocky Flats, up until the most recent Evaluation Report which is just getting going, there were a number of findings and issues, and there was a large degree of resolution and a lot of technical document changes because of that. And those are in place, so I don't know if that matters or not. It's just something that sets Rocky Flats apart from most other sites.

CHAIRMAN GRIFFON: Because of the Work Group Chair? Is that --

MR. HINNEFELD: I believe that's probably it.

(Laughter.)

CHAIRMAN GRIFFON: I wouldn't have guessed that, to be honest with you.

MEMBER MELIUS: On that note, I got to run to another meeting. Thank you all.

CHAIRMAN GRIFFON: Thanks for your input, Paul. How about Paul's turn now?

Thanks, Jim.

MEMBER MELIUS: And continue your robust review activities.

MEMBER MUNN: Thank you. Have fun.

CHAIRMAN GRIFFON: We will, we will. Okay. Now, that we have that on the table. Well, I don't know that we have to decide. I think one action which I was supposed to do for this meeting is to put the blind reviews back on the table, the ones that you already submitted to the -- so let's just

put them on as an agenda item and bring it up for discussion again because I think we do have to sort out the issues that Kathy was raising, which is, if we have the expectation that Jim had of using those blind reviews to sort of test our own process, then the one method versus the other might be important to decide on.

MR. FARVER: And do you also want to look at our reports on the cases we looked at a second time, the ones that Kathy wrote up reports on?

CHAIRMAN GRIFFON: Yes, those sort of re-works. Were they, we tasked you with that, right?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Yes. I mean, are they in our regular matrices? Is that just sort of the ongoing work?

MR. FARVER: Yes. There were several findings for each of the cases. We reviewed it. There were lots of changes made,

and it wasn't always clear what changed. So you tasked us to go look at the new redone dose reconstruction and compare it to the original and report back on what was changed.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: This is Stu. When was that, roughly when was that report submitted by Kathy?

Ms. BEHLING: It was submitted -- excuse me, this is Kathy. I think March 26th, 2012.

MR. HINNEFELD: Okay. Thank you.

Ms. BEHLING: You're welcome.

CHAIRMAN GRIFFON: Yes. I mean, I don't know about prioritization. The blind reviews definitely on the agenda, the reworks, I'm just not sure because I don't want to shift, we keep shifting priorities on NIOSH, too. You know, we're selecting the Savannah River cases to front-load, you know.

MR. FARVER: Well, I mean, there really wasn't anything for them to do. We

just looked through the report, because all we did was look at the two and say, okay, this is what --

CHAIRMAN GRIFFON: Yes. Well, they'd have to be at least ready to discuss --

MR. FARVER: Sure.

CHAIRMAN GRIFFON: -- your findings, right?

MR. FARVER: Sure. And it was just two cases.

CHAIRMAN GRIFFON: Oh, it was just two. Okay.

MR. FARVER: Yes.

CHAIRMAN GRIFFON: So maybe we can prioritize those. Let's save that for when we get to the -- they're in the 8th and 9th matrix sets, I assume?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Yes. So maybe we'll bring up the numbers and prioritize those for discussion next time.

MR. FARVER: Sure.

CHAIRMAN GRIFFON: All right.

MR. KATZ: So those are reworked cases?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: So then the blind reviews will be in the discussion and then possibly the reworks on the agenda next time, and this notion about the DR look-backs, as I'll refer to them, maybe we should wait until we talk about Savannah River and maybe what's coming next. But I like the idea that, Doug, both you and Ted said, that if we're going to do it, it's like a trial thing, and we should select a, maybe not even a site but a subset of your cases from a site, you know, that are currently under review, maybe. Maybe that's the best model. And I think that would be, you know, a way to go forward in this and sort of test what hidden things are going to come up. Alright. So we'll save that for the agenda in a few minutes.

I think our next item is going to

be selecting cases, right? We wanted to move that up.

MR. KATZ: Yes, that's critical to get done today.

CHAIRMAN GRIFFON: And can we -- Dave, when do you have to leave?

MEMBER KOTELCHUCK: Yes, I'm going to leave at a quarter of three, unfortunately.

CHAIRMAN GRIFFON: Okay.

MR. KATZ: It's 2:25 right now.

CHAIRMAN GRIFFON: I want to get the --

MEMBER KOTELCHUCK: I could talk with you later just to get a report on the last part of the meeting.

CHAIRMAN GRIFFON: Yes, yes, sure. I was just going to say, can we take a quick break and then, hopefully, Dave -- the case selection process doesn't usually take us that long. You'll be here for a few minutes to look --

MEMBER KOTELCHUCK: Yes, although

let me ask you this: if there's any consideration about me, why not go ahead until 2:45 and then you take your break?

CHAIRMAN GRIFFON: Okay. All right. We can do that.

MEMBER MUNN: Fine with me, if you can do it.

CHAIRMAN GRIFFON: Yes. Let's do that then. Let's pull up -- I just didn't have the document in front of me.

MEMBER KOTELCHUCK: Sure. Thanks.

MEMBER MUNN: So 10 through 13, is that what we're doing?

CHAIRMAN GRIFFON: No, we're looking at --

MR. FARVER: Case selection, I believe.

CHAIRMAN GRIFFON: -- case selection, yes. Can you -- what is that document called?

MEMBER MUNN: This document might contain information from --

MR. KATZ: No, he's looking for the file name.

MEMBER MUNN: Yes, I know.

CHAIRMAN GRIFFON: The file name, yes. She was joking. Well, let me ask it another way. Who sent it out?

MEMBER MUNN: Doug.

CHAIRMAN GRIFFON: It came out from Doug?

MR. FARVER: No, this is case selection for --

MR. HINNEFELD: Case selection. This is our 16th set.

CHAIRMAN GRIFFON: So did it come out --

MR. KATZ: Stu sent it.

CHAIRMAN GRIFFON: Stu sent it?

MR. KATZ: I think Stu sent it originally, and I think I re-sent it.

MR. CALHOUN: Isn't it called DR sub --

MR. KATZ: It's got a long

complicated name.

MR. CALHOUN: Yes. Mine says copy of, but my guess is it says DR Subcommittee review, underscore, 16th set --

MR. KATZ: Yes, yes.

MEMBER CLAWSON: -- space, most recent --

MR. KATZ: All that, yes.

MR. FARVER: When did you send that, Ted?

MR. KATZ: Oh, I don't have a -- I'm not open to my CDC account, so I can't tell you.

MR. FARVER: Two weeks --

MR. KATZ: Well, I resent it recently, but it was sent at least two weeks ago by Stu, two to three weeks ago by Stu. Yes, I sent them to your CSB address.

CHAIRMAN GRIFFON: Yes. I can't find it. Do you have it handy right now out, Ted?

MR. KATZ: I'd need a --

CHAIRMAN GRIFFON: Ten-year review.

MEMBER MUNN: I've got mine out, but I'm not --

CHAIRMAN GRIFFON: Yes, that's going back to --

MR. KATZ: Hold on a second.

CHAIRMAN GRIFFON: You think it was a couple of weeks ago?

MR. KATZ: Stu sent it originally maybe even three weeks ago, and then I forwarded it to you the next --

CHAIRMAN GRIFFON: Oh, here it is, here it is. I've got it. It's way back, 7/23.

MR. KATZ: Okay. That's about three weeks ago.

CHAIRMAN GRIFFON: Yes, yes, okay. All right. Okay. So can you give us an overview, Stu?

MR. KATZ: No, that I can't. I can only send it to your CDC address.

MEMBER KOTELCHUCK: It's not familiar to me.

MR. KATZ: Although I actually thought I had Zaida -- Zaida sent to you in a package. I thought I had Zaida send it to you in a package, too.

CHAIRMAN GRIFFON: Okay. So, anyway, Stu, can you just give us an overview on this? How many cases are in this?

MR. HINNEFELD: There are 70.

CHAIRMAN GRIFFON: Seventy?

MEMBER MUNN: Who sent it out on the 17th?

MR. HINNEFELD: There are 70 cases on the list. They represent, I believe, the most recently completed cases that have been adjudicated by the Department of Labor. At least on the date we initiated this process, which goes back a couple of months probably, we took the hundred or so or two hundred, however many it was, most recently completed cases that we had sent to DOL up to some

point, we didn't send the ones we sent yesterday because we knew those weren't adjudicated, and asked them: which of these have been finally adjudicated? They answered us.

We took the 70 most recent. We then sent them to Oak Ridge or ORAU team for the addition of the final four or five data fields that have to do with job title, work location. All of those things all allow even yet more specific information, so the more data you put in here the more privacy-protected it becomes. The original list didn't have, you know, none of these lists have the same identification, no names, no Social Security numbers, no NIOSH tracking numbers, in order to try to keep them somewhat anonymous. But they're still, we've still been advised by OGC that they should be treated as Privacy-Act-protected.

So that is what we've attempted to do is find the most recent ones possible and

fill out the data that's there, it's got the normal selection data, the site, cancer location, PoC, number of years worked, things like that.

CHAIRMAN GRIFFON: And it looks like they're sorted by the date approved almost. They go back to September 2011, yes.

MR. HINNEFELD: Yes. It could be that we sort them by that. Yes, that could be. I don't know if -- there's a selection number on there, which is an artificial number. If those are not in order, then that means we sort them --

CHAIRMAN GRIFFON: Oh, yes, they are not in order.

MR. HINNEFELD: If those are not in order, that means we sort them by date selected.

MEMBER MUNN: By date --

MR. HINNEFELD: By date approved.

MEMBER MUNN: Date approved is what it is.

MR. HINNEFELD: Then that's the date that the draft or the date that we approved the dose reconstruction.

MEMBER MUNN: Yes, right.

MR. HINNEFELD: It has nothing to do with the date of the adjudication.

MEMBER MUNN: Because they start with the most recent and go back to 9/22/2011.

CHAIRMAN GRIFFON: Our goal, again, is to pre-select for the Board, and then the Board does the tasking. Right, right.

MEMBER MUNN: And what criteria do we choose to use for the 16th set?

CHAIRMAN GRIFFON: I think we probably use the same criteria we've been using all along, yes, yes. But, again -- yes.

MR. FARVER: I'll bring this up at -- sometimes, during our one-on-one dose reconstruction conversations with the Board Members, there's been some concerns between the time we get the case to look at and

sometimes there's an SEC issued in the interim and sometimes there's questions, well, should we even have looked at this? So I don't know if you may want to take that into consideration when selecting the sites. If you know that there's SEC issues out there that could have a large impact, maybe we don't want to look at that site in this set.

MEMBER MUNN: That covers a lot of folks, Doug.

MR. FARVER: I'm just bringing it up.

MEMBER MUNN: Just saying.

MR. KATZ: It's always been sort of a mixed -- we've never applied a bright line like that --

MR. FARVER: We have not.

MR. KATZ: -- for good reason, because you still do dose reconstruction per site.

MR. FARVER: I was just bringing the concern up.

MR. KATZ: Right.

CHAIRMAN GRIFFON: Alright. So these are -- yes, go ahead.

MEMBER CLAWSON: Just to make sure that I'm on the right one, the first one is 2012-06?

MEMBER MUNN: 636, yes.

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

MEMBER MUNN: 636 is the first one.

CHAIRMAN GRIFFON: Yes, I'll just refer to the last three numbers because they sorted them by date of approval.

MR. HINNEFELD: Yes. And the selection ID, the 2012-06, just means that we pulled this case in June of 2012, we pulled this whole population. The last three digits are actually the identifying number.

MEMBER CLAWSON: And I just noticed a lot of this and didn't want to give away any other stuff.

MR. HINNEFELD: Yes, there's nothing Privacy-Act-protected about the selection ID. That's completely artificial. It was assigned through this process. Nothing protected about selection ID.

CHAIRMAN GRIFFON: Okay. So going down these --

MR. KATZ: Your goal is to select a number, I think. So you have 70 cases, and your goal is to recommend a set of about 25, I think, is the normal set size.

MR. FARVER: And we've had all sorts of, everything from 20 up to 40.

MR. KATZ: That was one unusual case where we doubled the set, but I think the normal set size has been about 25, right?

MEMBER MUNN: I think that's close.

MR. FARVER: Yes, 20 to 40. A lot of it depends on what assigned sets you have to pick from. I know, like, sort of times we've had smaller sets, and we've picked

smaller numbers.

MR. HINNEFELD: I forgot that there's also a PoC selection in here. These are like 40 to 52 percent.

MEMBER MUNN: That's what we see.

CHAIRMAN GRIFFON: Ted, do you want to keep the scorecard on these?

MR. KATZ: Sure. Yes.

CHAIRMAN GRIFFON: Okay. I mean, the first one I see, 192.

MEMBER MUNN: Yes, that's a familiar one in all respects.

MR. KATZ: What site is it?

MEMBER MUNN: Seed materials production.

CHAIRMAN GRIFFON: Yes. Although very low years worked, but yes.

MEMBER MUNN: Just in case you didn't know that.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: I saw 453.

CHAIRMAN GRIFFON: You going on

down then?

MR. KATZ: You might want to, I mean, I think something that the Board sometimes asks you is why did you choose the one you chose, so you may want to make a record of why it is you're specifying the ones you do.

MEMBER MUNN: There are --

(Simultaneous speakers.)

MR. KATZ: -- starting with Fernald.

MEMBER MUNN: -- more recent. One of them is the site location.

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: One of them is the type of cancer. One of them is the PoC.

CHAIRMAN GRIFFON: Yes, I think we can -- yes.

MEMBER MUNN: And one of them is the work decade, the number of years worked.

CHAIRMAN GRIFFON: Yes. Actually, before 453, 673, which is a Hanford lung

cancer.

MEMBER MUNN: Well, I can't speak to that.

CHAIRMAN GRIFFON: I know that's not something that we haven't done before, but it's 45 years of work, fireman, carpenter, you know. Yes. The next one, also, I think is interesting.

MEMBER CLAWSON: What number was that, Mark?

CHAIRMAN GRIFFON: 673.

MR. KATZ: So I have 192, 673.

CHAIRMAN GRIFFON: Well, the next one is -- of course, it's skin.

MEMBER MUNN: You don't want to do 675?

CHAIRMAN GRIFFON: I don't know. It could be just a multiple, but, you know --

MEMBER MUNN: There's a bunch of those.

CHAIRMAN GRIFFON: Yes. I think I'm down to your 453 then.

MR. KATZ: What site again?

CHAIRMAN GRIFFON: It's gaseous diffusion? It doesn't say.

MEMBER MUNN: K-25 --

CHAIRMAN GRIFFON: Oh, okay, I cut it off when I shrunk this all down. Let's see.

MEMBER MUNN: How about --

CHAIRMAN GRIFFON: We've got 680.

MEMBER MUNN: 680 is not bad.

CHAIRMAN GRIFFON: 680 is Rocky Flats.

MEMBER MUNN: Let's do that one. And then I marked 618.

MR. FARVER: 618.

MR. KATZ: What's that site?

MEMBER MUNN: On multiples.

MR. FARVER: Multiple sites.

MEMBER MUNN: No, it says Fermi.

MR. KATZ: Fermi.

CHAIRMAN GRIFFON: 618, yes.

MR. KATZ: And for folks who

aren't, Board Members who aren't speaking up, if you have one in between these that you think, speak up, by all means.

MEMBER MUNN: I'd say 647.

MR. KATZ: And that's what type?

CHAIRMAN GRIFFON: Yes, I'm just looking at --

MEMBER MUNN: Oak Ridge.

CHAIRMAN GRIFFON: 666. What's this site here?

MEMBER CLAWSON: Wang Chung?

CHAIRMAN GRIFFON: Wah Chang.

MEMBER CLAWSON: Wang Chung tonight, that's all I remembered.

MR. KATZ: Is that affirmative?

CHAIRMAN GRIFFON: Have we ever done that? I don't think --

MR. FARVER: I don't think we --

MEMBER MUNN: We actually have.

CHAIRMAN GRIFFON: Oh, we did?

MEMBER MUNN: We've done one. I only remember one.

CHAIRMAN GRIFFON: I don't remember. Kathy, do you know if we selected this site? Kathy is good at this.

DR. BEHLING: I'm sorry. I didn't hear the site again.

MR. KATZ: Wah Chang.

CHAIRMAN GRIFFON: Wah Chang. Wah Chang. W-A-H C-H-A-N-G.

MEMBER MUNN: It means the Great Leap Forward, in case you don't know.

CHAIRMAN GRIFFON: I don't remember.

DR. BEHLING: I don't see that.

CHAIRMAN GRIFFON: I think we added that one. Kathy says she doesn't see it on her list.

MR. KATZ: Okay.

MEMBER MUNN: Alright. It's on now, the devil's number.

CHAIRMAN GRIFFON: Where is that site anyway?

MEMBER MUNN: It's in Albany,

Oregon. Right on I-5.

CHAIRMAN GRIFFON: Okay. Never heard of it.

MEMBER MUNN: What about 647? The next one?

CHAIRMAN GRIFFON: Are they respiratory? Yes.

MR. KATZ: 647. That's what?

CHAIRMAN GRIFFON: It looks okay to me.

MEMBER MUNN: Oak Ridge.

CHAIRMAN GRIFFON: Oak Ridge, yes.

MR. FARVER: And then there's 644.

CHAIRMAN GRIFFON: Yes, what about 227?

MR. KATZ: Wait. Are we saying 644 or --

CHAIRMAN GRIFFON: No, that was ahead of mine.

MR. FARVER: 644, the Hanford, Rocky Flats, Savannah River.

CHAIRMAN GRIFFON: Yes, that one

is good, 644.

MR. KATZ: So 644 is on.

CHAIRMAN GRIFFON: Just to go back, 647 I was saying -- no, it's 227.

MEMBER MUNN: Got it.

CHAIRMAN GRIFFON: And it's Oak Ridge, gaseous diffusion, but it's also Y-12 also. Alright.

MEMBER MUNN: Alright. 214.

CHAIRMAN GRIFFON: 214. Have we done this DeSoto complex, before we get to 214 one?

MEMBER MUNN: No, I'm not familiar with that if we have.

MR. HINNEFELD: DeSoto is one of the Santa Susana. It's an associate facility of Santa Susana.

CHAIRMAN GRIFFON: Oh, okay, okay. Alright, alright. Then we'll skip that. And I'm looking for 214 now. Yes, okay, 214.

MR. KATZ: What's that?

CHAIRMAN GRIFFON: Fernald.

MEMBER CLAWSON: Feed material.

CHAIRMAN GRIFFON: And the years, yes. It's the 80s.

MEMBER MUNN: Right.

CHAIRMAN GRIFFON: Alright.

MEMBER MUNN: The next one I see is 604, site and time frame.

MR. KATZ: What site? Sorry.

MEMBER MUNN: Albuquerque.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: Did you say 604, Wanda?

MEMBER MUNN: Yes, I did.

MR. HINNEFELD: And it also has Los Alamos, Nevada Test Site, Sandia.

CHAIRMAN GRIFFON: Yes. Alright. Wah Chang again, huh?

MEMBER MUNN: Not the same.

CHAIRMAN GRIFFON: They must have done all the cases from this site all at once because there's three or four of them. Alright.

MEMBER MUNN: Probably just working the site.

CHAIRMAN GRIFFON: Yes. I mean, we're really going to do a mini Site Profile review on that anyway so --

MR. KATZ: Let's go to you and Dave.

MR. HINNEFELD: It's going to take me a while to get started here.

MEMBER CLAWSON: Can I suggest one, but I'm conflicted, or --

MR. KATZ: No, you can't.

MEMBER CLAWSON: No, I can't?

MR. KATZ: You cannot.

MEMBER CLAWSON: Okay. Can Mark?

CHAIRMAN GRIFFON: I'll look for it, Brad.

MEMBER MUNN: 628?

CHAIRMAN GRIFFON: Yes, 628 I think is a good one.

MR. KATZ: What site?

CHAIRMAN GRIFFON: It's Idaho.

We're almost to the end, I think, here. How about 653?

MEMBER MUNN: 5-3? Oh, yes, that's interesting.

MR. KATZ: What site?

CHAIRMAN GRIFFON: Fernald.

MEMBER MUNN: Fernald and Mound.

CHAIRMAN GRIFFON: And Mound, yes.

MEMBER MUNN: If we want to do a Mound site, it can be 698.

CHAIRMAN GRIFFON: 648 is Bethlehem Steel?

MEMBER MUNN: High PoC.

CHAIRMAN GRIFFON: Yes, it's skin cancer, so this is sort of looking at the non-listed --

MEMBER MUNN: Long-term employment.

MEMBER CLAWSON: I like 621.

CHAIRMAN GRIFFON: It would be a look at the partial review, right? Yes, okay.

MR. KATZ: Bethlehem Steel?

CHAIRMAN GRIFFON: Yes, 648. I'm sorry, Brad. What were you saying?

MEMBER CLAWSON: 621, just above.

CHAIRMAN GRIFFON: Yes, Fernald again, right?

MEMBER CLAWSON: Yes.

MEMBER MUNN: Didn't we just do one of those?

CHAIRMAN GRIFFON: Yes. This one is in the `90s. We don't have many in that decade. Let's say 621 for now. The other thing to remember is that we're going to bring these back to the full Board so they can cut some off or add some on.

MR. KATZ: Yes. You may want to check with Kathy, I think, who keeps a record on how many cases we've done --

CHAIRMAN GRIFFON: By site, yes.

MR. KATZ: -- and how we are in terms of --

CHAIRMAN GRIFFON: Yes. We've never been close. I've checked in on that

occasionally, but we've never been close. Yes.

MEMBER MUNN: She's provided us even --

CHAIRMAN GRIFFON: Even on ones I thought we were close, like Savannah River, we weren't, yes, yes.

MEMBER CLAWSON: What about 199?

CHAIRMAN GRIFFON: Yes. Again, this would be a non-listed cancer situation. Mallinckrodt. So 199, you got that one?

MR. KATZ: Got 199.

CHAIRMAN GRIFFON: I hear a lot of -- I'm not sure who's -- okay. And I'm winding down toward the end here. Look at 640. Anybody interested in that one?

MEMBER CLAWSON: That one -- I can't comment.

CHAIRMAN GRIFFON: Yes. That one you can't comment on. 640, yes or no, anybody?

MEMBER MUNN: Covered.

CHAIRMAN GRIFFON: That's covered you think? Alright. I'm not particularly wedded to it. The thyroid cancer kind of -- anyway --

MR. KATZ: We need about double the number we have.

MEMBER MUNN: If you want a really low PoC.

MR. KATZ: Just to let you know where you are.

CHAIRMAN GRIFFON: Yes. Well, we've got about six left to go through, so we're not going to get there.

MEMBER MUNN: So we're going to do 649?

CHAIRMAN GRIFFON: Yes, 649.

MR. KATZ: 649, which is what site?

CHAIRMAN GRIFFON: And 584, I think that's okay, the Pacific Northwest one. I mean, 552 and 646, both Savannah Rivers, but, you know, we have a lot of those.

MEMBER MUNN: 552 probably, higher PoC.

CHAIRMAN GRIFFON: Yes, they're both in the 50s.

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Okay. Just --

MR. KATZ: 5-5-2?

CHAIRMAN GRIFFON: Just 552?

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Alright.

MEMBER MUNN: How about 627, site, long term.

CHAIRMAN GRIFFON: Is that the last one?

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: What site?

CHAIRMAN GRIFFON: BWXT.

MR. KATZ: BWXT. And how many do we have, Ted? That's everything, that's all of them.

MEMBER MUNN: Twenty.

MR. CALHOUN: That's what I got, I got 20.

MR. KATZ: Yes, there's 20.

CHAIRMAN GRIFFON: Okay.

MR. KATZ: So that's what you got?

CHAIRMAN GRIFFON: Yes. Well, I don't know that we skipped many borderline ones. Maybe two or three but --

MR. CALHOUN: Can I ask what you were looking for? I have no clue what your criteria was.

CHAIRMAN GRIFFON: That's good.

MEMBER CLAWSON: That, if we told you, we'd have to shoot you.

MR. CALHOUN: Oh, okay. That's all right. No problem.

MEMBER CLAWSON: Basically, the ones we're interested in or that certain parts of the site, the years, it's kind of just, there's no science to it whatsoever.

MR. CALHOUN: That's what I like.

(Laughter.)

CHAIRMAN GRIFFON: It's a random process. No, I mean, part of the ones we went by are a lot of the skin cancer ones. I think they're not as interesting, you know. The only reason the PoC is so high probably is that it's multiple skins, and we've seen those a lot. And tried to look at the, you know, these are all supposed to have a component of best estimate in them, but sometimes only part of it is the best estimate.

MEMBER MUNN: Yes.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: So, Mark, do you want me to run through the numbers for you?

CHAIRMAN GRIFFON: I've got them highlighted. I mean, you can --

MR. KATZ: No, no.

CHAIRMAN GRIFFON: Alright. So we'll, if that's okay, this will be the Subcommittee proposal to the Board at the upcoming meeting, and, hopefully, we'll get it tasked out from there. Okay, alright. Now

can we take our break?

MEMBER MUNN: Yes, now.

CHAIRMAN GRIFFON: Let's take ten minutes or so, and then we'll start looking at the individual reviews. I think we're going to start with the Savannah River group. Take ten.

(Whereupon, the above-entitled matter went off the record at 2:51 p.m. and resumed at 3:07 p.m.)

MR. KATZ: And we're back. Do we have you, David? Dr. Richardson?

MEMBER MUNN: We're now to one David here.

MR. KATZ: Yes.

MEMBER POSTON: When I worked for the Assistant Secretary, I had the honor of speaking to the DMSB many times. Can't remember --

CHAIRMAN GRIFFON: Yes, the nature of the job.

MR. KATZ: David Richardson, are

you back on the line with us? Maybe not.

CHAIRMAN GRIFFON: Help me with -- the next item on the agenda is the SRS cases that you identified from the --

MR. FARVER: Yes. I sent this out to everyone about the middle of last week.

CHAIRMAN GRIFFON: And what is the name of it?

MR. FARVER: It should be something like SRS issues, resolutions.

CHAIRMAN GRIFFON: SC&A responses, 10th through 13th, SRS findings. Okay.

MEMBER CLAWSON: Mark, if you want a paper one --

CHAIRMAN GRIFFON: No, I got it, I got it.

MR. FARVER: When you're ready, let me know.

CHAIRMAN GRIFFON: Okay. So now here is the one thing I'm concerned about in starting this process is that how I dovetail these back into the original matrix or how we

track these or keep control of all these matrices, yes.

MR. FARVER: We don't know, yes.

CHAIRMAN GRIFFON: Okay.

MEMBER MUNN: We don't know now.

CHAIRMAN GRIFFON: Good answer. Because I don't see the number that would correspond to the numbers in the regular matrices, 10 through 13.

MR. FARVER: Any number should still be the same.

MEMBER MUNN: 226.1?

MR. FARVER: Yes, finding numbers are still the same. I changed some of the columns.

CHAIRMAN GRIFFON: Wait. Okay. Oh, okay, I'm sorry. I was looking at the introduction piece. I was looking at your first couple of pages. Yes, so here's the matrix. Okay.

MR. FARVER: Yes. And the reason I did that was because I thought it provided

more useful information than some of the other columns, but we can go through it --

CHAIRMAN GRIFFON: Yes, okay.

MR. FARVER: -- if the format is not okay. And there were 56 findings from 17 Savannah River cases in the 10th through 13th sets. We wrote up our findings. NIOSH has responded to them. And then we have, we came up with a response to their response, basically, how we evaluated their response. And then we kind of suggested action. That was the basis of this.

And then there's another column for NIOSH to either say, yes, that's okay, or, no, that's not okay but we like this idea. So there will be a case for another response. Thought process was, with one or two iterations we could resolve almost all these findings.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Okay. And as it stands now, just after a once through, there

were, out of 56 findings, we recommended closing 29 findings, have proposed actions for 18 findings. That leaves 8 findings for the Board, and, actually, the one that I had down for subject matter discussion we've already closed. That was closed when we talked about the Category A findings.

CHAIRMAN GRIFFON: Alright. When you say you've closed, we've closed, you're recommending that the -- when you say closed here, that means --

MR. FARVER: That's our recommendation.

CHAIRMAN GRIFFON: Okay, alright. So the Work Group has not closed it?

MR. FARVER: They have not. That's why it's just a suggested action.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: Also in that matrix is the category that we identified when we went through the 10 through 13 sets. So as we took a closer look, there was some of these

findings that we re-categorized, and those are listed at the bottom of page three, too. A few, not too many.

So that's the gist of it. And even in our recommendations, you'll see a lot of times it's update the TBD, you know. They're doing a lot of, making a lot of assumptions that were not contained in the TBD, and this is a case where it hasn't been revised since 2005 for one reason or another. But the changes they're making, it's not that we disagree with the changes, it's they're not documented well and, if you look at the TBD, they are not what the TBD says. They are somewhat different. They come from a different document. So that's the gist of a lot of suggested actions.

MEMBER MUNN: They come from a different document.

MR. FARVER: In other words, they might pull out a phrase out of IG-001.

MEMBER MUNN: Oh, okay.

MR. FARVER: And this comes into --

MEMBER MUNN: Something other than the technical --

MR. FARVER: Technical basis. So the technical basis will give you one number, and IG-001 will give you a different number.

MEMBER MUNN: A different number. Probably not too different but different enough to be different.

MR. FARVER: It's different enough that when you're reviewing it you can't tell where it came from.

MEMBER MUNN: Okay.

MR. FARVER: That's okay, but somewhere it needs to get all combined. Now, how would you like to proceed? First off, I mean, is this format okay? Because this is what I propose using for the closing out of these backlog of findings because it's something that's very easy to look at and it kind of sums up the actions, responses. And

how it merges into your matrix I'm not sure yet.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Well, and that's my only complaint.

CHAIRMAN GRIFFON: Back to the database.

MEMBER MUNN: It would be nice to have it in the same format, but it's hard to try to switch back and forth from the matrix that we started with to this matrix.

MR. FARVER: Well, that was difficult, too, because it was, those matrices were broken down by set, 11th, 12th, 13th, and so forth, and now we're combining things.

MEMBER MUNN: You're doing 10 to 13.

MR. FARVER: So you'd be jumping around from matrix to matrix anyway.

MEMBER MUNN: It's probably the only legitimate way to do it.

CHAIRMAN GRIFFON: And the only,

the category differences are what? I mean, the one thing I noticed is you took out the -- there used to be two rankings.

MR. FARVER: I did, because it wasn't always filled in --

CHAIRMAN GRIFFON: It's not apropos to what you're doing here, yes. It was usually, I mean, we didn't fill it in until the end of the hundred cases really.

MR. FARVER: Correct.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Which is why I tried to whittle it down to columns that were useful.

CHAIRMAN GRIFFON: Otherwise, I don't see a problem with the columns necessarily.

Ms. BEHLING: This is Kathy Behling. Just one suggestion I would make on this matrix, could we have at the very end of the matrix the list of categories again, what A represents and B represents?

MR. FARVER: Okay. That's up in table one, Kathy.

Ms. BEHLING: Okay. Sorry.

MR. FARVER: That's okay. But, you know, I could put it as something.

MEMBER MUNN: Yes, it's good. It's just every time we change anything, somebody like me is going to complain just because you changed it. That's all right.

MR. FARVER: I'll expect that from you.

MEMBER MUNN: It's in my job description. Wanda will complain.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: All right. So why don't we, I think the format is okay.

MR. FARVER: And, in general, for observations, I didn't put any action down because, normally, they don't have to respond to observations.

CHAIRMAN GRIFFON: That was one question I was going to ask is why are we,

should we even track the observations, or should they just be in your report?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: If we're not going to take any action on them, why bother?

MR. FARVER: We haven't in the past.

CHAIRMAN GRIFFON: Right, right.

MR. FARVER: So that's why I did not put an action in there for those.

CHAIRMAN GRIFFON: Alright.

MR. SIEBERT: So what you're saying, as a person who does a lot of these responses, is we don't need to --

CHAIRMAN GRIFFON: Well, I mean, by calling them observations, I think SC&A is suggesting that they don't require a resolution.

MR. FARVER: Right. They're not to the level of a finding. And this is another thing we go over when we talk with the Board Members: is this an observation to you

or is this a finding, what's your opinion?

CHAIRMAN GRIFFON: Right.

MR. FARVER: And make changes accordingly.

CHAIRMAN GRIFFON: So I would say, if you end up at a place where you're calling it a finding, include it in the matrix. Otherwise, just leave it in your base report.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: I would say because --

MR. SIEBERT: So they don't go into the matrix anymore?

CHAIRMAN GRIFFON: Right.

MR. SIEBERT: Okay.

CHAIRMAN GRIFFON: That doesn't mean NIOSH can't read --

MR. SIEBERT: We will --

(Simultaneous speakers.)

MR. SIEBERT: -- and consider, I'm sure.

MR. FARVER: And that's all it is.

It's really a note to them that we came across something that might be of interest to you.

CHAIRMAN GRIFFON: Yes. I think we have enough to sort through. We don't need to, you know, clutter our matrices up.

MEMBER MUNN: I'm pretty sure.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: Alright. So then I guess we can start --

MR. FARVER: Okay. We'll see. The first finding is 255.1, failure to account for internal dose from fission products. This goes back to one of these previously identified findings about, oh, fission products, whole body counts, urine, and it's one we resolved back in eight, I believe, for Savannah River. It has to do with OTIB --

MR. SIEBERT: It's using the chooser tool for picking the most claimant-favorable radionuclide for a whole body count in that method.

MR. FARVER: Yes. And it's also,

it also applies to urine data or something that it was still consistent. And I think that's how the finding, the previous one, was.

CHAIRMAN GRIFFON: Okay. I don't see a -- NIOSH suggested action.

MR. FARVER: So what we came up with --

CHAIRMAN GRIFFON: Shouldn't that last column be "Board suggested action?"

MR. FARVER: Well --

CHAIRMAN GRIFFON: Or "Subcommittee suggested action?"

MR. FARVER: Let's say we go down farther and we have an SC&A action or suggested action that says: "provide SC&A with the neutron dose calculations." You know, that's our suggested action?

CHAIRMAN GRIFFON: Right.

MR. FARVER: And NIOSH would agree or disagree, and then they would say, "calculations provided to SC&A on such a such date." And then we have all these actions

tracked, and that gives us the information to close out that after we review the file. So, like I say, I dreamed all this up --

CHAIRMAN GRIFFON: And I think this was actually in the other matrix is when we switched the header, because that last column should be, you know, "Subcommittee action" or "suggested Subcommittee action" because sometimes I put in there "SC&A will review", blah blah blah --

MR. FARVER: Yes.

CHAIRMAN GRIFFON: -- so it can go either way. It's an action for --

MR. FARVER: It can.

CHAIRMAN GRIFFON: -- either one, yes. That's all I'm saying. So in there, I was just going to say, you know, the Subcommittee or --

MR. FARVER: Okay.

CHAIRMAN GRIFFON: -- you know, to summarize like I usually do, NIOSH can, you know, revise --

MR. FARVER: My thinking when I put the NIOSH suggested action was let's say we come up with our response that, I don't know, we come up with something. They don't quite agree with it, but they're going to say, "We don't agree with it but how about this?" So they would suggest something for us to consider.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: That was my thinking about having them have input on that one, not so much the Subcommittee closing something.

MR. KATZ: We still need a final column --

CHAIRMAN GRIFFON: Yes, I think there should be a column of closure, yes.

MR. FARVER: Okay.

MR. SIEBERT: And I was going to say, what we've done in the past is for additional NIOSH responses or the like, we just put another heading, another entry under the NIOSH response dated --

CHAIRMAN GRIFFON: Dated. Yes, that works.

MR. SIEBERT: I mean, just track it that way, yes. I don't think we need an extra column as such.

MR. FARVER: And the only reason I didn't consider that too much was that if somehow we can get this into a database, then that's tough to add to a field after the field has been in there. But we'll have to work that part out.

CHAIRMAN GRIFFON: I mean, I would just say "suggested action," we can leave it there for now, but "suggested action," I think.

MR. FARVER: At the very end?

CHAIRMAN GRIFFON: Well, instead of "NIOSH suggested action," just "suggested action."

MR. KATZ: Why isn't it just "Subcommittee decision" or whatever? Because you're the ones, you decide whether it's

closed or whether it's in abeyance, whatever. So just "status whatever," or just "status" because you close them or you don't close them.

CHAIRMAN GRIFFON: But what we've always put there in the past is, you know, "closed, no further action," or "closed, NIOSH will revise TBD blah blah blah", and then there's a holder that we do to make sure they -- you know. Remember how we always do that?

MR. KATZ: So just "Board action" anyway. "Subcommittee action."

CHAIRMAN GRIFFON: That's what I just said, didn't I?

MR. KATZ: I don't know what you said.

CHAIRMAN GRIFFON: Yes, instead of "NIOSH action," "Subcommittee action."

MEMBER MUNN: Well, in the past, we've used "program action." In the past, we used "program action." Either way, it's fine. I'm just saying.

CHAIRMAN GRIFFON: Or just "suggested action." Yes, whatever. I don't think it's just NIOSH. That's all I was saying.

MEMBER MUNN: No.

CHAIRMAN GRIFFON: Okay.

MEMBER MUNN: We had a Board action column and a program action column.

CHAIRMAN GRIFFON: Okay. So for this one anyway, we're going to say "closed, no further action," right? NIOSH used the -- I'm trying to get the term -- the radionuclide chooser TBD. SC&A accepts this approach. No further action.

MR. FARVER: What? For your wording?

CHAIRMAN GRIFFON: Yes. NIOSH used the radionuclide chooser TBD. Is there a number for that?

MR. SIEBERT: Well, the TBD itself, the Savannah River TBD, has a portion -- tool is what you were thinking, right?

CHAIRMAN GRIFFON: Tool, yes.

MR. SIEBERT: It has just a portion that describes that you can use the most claimant-favorable radionuclide from the whole body count, and then there's a chooser tool to do so.

MR. FARVER: I could go back and look up what finding it was back in Section 8.

CHAIRMAN GRIFFON: That's okay. I just want to be sort of specific. NIOSH uses the radionuclide chooser tool referenced in SRS TBD. SC&A agrees with this, no further action. Right?

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: Two observations. I'm down to 256.1, incomplete accounting of neutron dose. A single neutron dosimetry result of zero in 1995. It should have been caught, which would have allowed them to apply missed neutron dose, but it was not. So this falls under a QA issue, but I don't know that

there's any action we can take, so we would suggest closing it. Now, if you want to get into more of, well, how did you miss it, is it a data entry error or is it some other type of error, that's different.

CHAIRMAN GRIFFON: No, I think it's closed, yes.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: NIOSH acknowledged it, yes. Okay.

MR. FARVER: We've moved down to page three, and the next one is 257.1, failed to assign occupational medical doses. This is where medical doses, at the time the DR was performed, they did not have the medical records. After the DR was performed, the medical records arrived, but changes were not made. In other words, there was no action taken that I know of when those records arrived to start the change process. And as the timing works out --

CHAIRMAN GRIFFON: I'm sorry. I'm

just looking back. I was catching up.

MR. FARVER: Sure. Okay.

CHAIRMAN GRIFFON: 256, observation number four. And I know, you know, we're making this administrative decision, not to look at --

MR. FARVER: Okay.

CHAIRMAN GRIFFON: -- actions on observations, but how is a -- this observation reflects a previous -- this is what caught my eye, this observation reflects a previous finding that has been resolved. It's observations about a CATI report, right? How could that have been previously resolved?

MR. SIEBERT: I believe this is, yes, this is the more generalized issue of things were stated in the CATI. The SEC review stated that it could have been explained more clearly in the dose reconstruction, so I believe that what Doug was mentioning was that overall process --

MR. FARVER: That overall process.

MR. SIEBERT: -- has been discussed in the Subcommittee.

CHAIRMAN GRIFFON: All right, got it.

MR. FARVER: Which is probably why it was made an observation and not a finding.

CHAIRMAN GRIFFON: Okay. That's fine. Okay, sorry. Yes, I agree with that. Then you were saying --

MR. FARVER: This is down to 257.1, the medical records arrived after the dose reconstruction had been performed but before DOL issued their final decision letter. So what do you do? I mean, that's what it comes down to.

CHAIRMAN GRIFFON: Right.

MR. FARVER: And there's no indication in the records that the medical records were considered. Now, they have been considered since then. But the concern is, once you get records after you've completed a dose reconstruction, what's the process?

MR. CALHOUN: Well, now it's that PAD process.

MR. FARVER: Let's say you have a short time frame like this where the medical records come in February; DOL is about to issue a letter. Do you, like, get on the phone and say, "hey, we just got records in --"

MR. CALHOUN: I don't know that we have a process in place that would catch it that quick.

MR. FARVER: Well, I mean, if you catch it. I mean, if you say records arrived, okay, I've got records, what do I do?

MR. CALHOUN: If we got records before the case was sent to Labor, I can't say for sure we would do it. I would hope that we would pull the case back, because we can do that with the push of a button.

MR. SIEBERT: Grady, this one, the medical X-rays came in two months after we submitted it to Labor.

MR. FARVER: It came in after Labor.

MR. CALHOUN: Okay. Yes, well, right now what we've got is every time, every time we get additional information after the case has gone final, we review the case. And I wrote down some stats that we've gotten. We just started doing this three or four months ago. We've reviewed 1,070 cases where we've had additional information that has come in. Eight of those cases are likely to flip to comp, and as soon as we get the information that those cases could flip to comp, we request a rework from Labor.

MR. FARVER: I understand. I mean, this probably isn't going to flip anything. It was just a matter of, in general, what is the process. I know this was a short window --

MR. CALHOUN: Right. We did not have a process until recently.

MR. FARVER: Okay. I mean, is

there a mechanism just to pick up the call and say, Labor, we've got records in, we know you're about to issue a final decision letter, and you may want to hold off until we can look at this case again?

MR. CALHOUN: If it was between there, we would. I don't think that -- right now, our process is, as they come in we're looking through them, and we've got a big backlog. So I'm not going to tell you we've got something right now that we can do it because I'm not sure it would happen that way.

MR. FARVER: But it's not like as it comes in it would trigger something. It comes in and goes into review --

MR. CALHOUN: Right. And I'll tell you what, I think I just need -- I don't know when the trigger happens, if there's a periodic review of the document or if, as soon as it's uploaded, there's a flag. I just don't know right now.

MR. FARVER: Okay.

MR. CALHOUN: Do you know, Scott?

MR. SIEBERT: At the moment, it's more of a batch process,

MR. CALHOUN: Yes, that's what I thought.

MR. SIEBERT: The overall batch was about 1500. And as soon as we're getting that batch worked out, which is in the next few months, then we'll start the next -- look at the next batch like that. So it's more of a chunk as we get to -- but then again, each time period it's going to get shorter because now we have a process in place for doing it and catching up with it, as opposed to the backlog.

MR. FARVER: And the reason I made this a Subcommittee issue, because I wasn't sure that was something that I'm going to resolve talking to them. I mean, we could discuss each other's thoughts, but it's more or less how the Subcommittee wants to handle that, do nothing or close this or wants more

information. So in those cases, I just put down "Subcommittee issue."

MEMBER MUNN: It's not clear that once someone picks up that record and identifies the case file, it's not clear that there's an automatic ding telling you this one has already gone or this one is on the deck ready to go. Does that exist?

MR. CALHOUN: No.

MEMBER MUNN: That warning flag?

MR. CALHOUN: No.

MEMBER MUNN: And is there a way that we could get it to exist, without really and truly driving everybody nuts?

MR. CALHOUN: I think we should look at it. It seems like there should be something there. What happens is, this whole process is document-driven, and, once you upload a document into the NOCTS file for case number 1234, it seems like there could be --

MEMBER MUNN: There ought to be.

MR. CALHOUN: -- something that

says, hey. So we can look at that and see if we can make that more of a real-time thing.

MEMBER MUNN: We just need something to notify the person who is inputting into the system the fact that this information has arrived. There just needs to be a ding.

MR. CALHOUN: Right. I agree. I'll check into that. It seems like one of our crack staff could do something like that, but I'll check.

MR. KATZ: Are we closing --

MR. FARVER: I think there would be an action on the NIOSH part of it.

CHAIRMAN GRIFFON: Yes, NIOSH is going to check into having an automated notification. Is that sort of how to describe it? Yes.

MR. CALHOUN: Make it closer to real time.

CHAIRMAN GRIFFON: Okay. And we'll just keep it open, pending, you know,

what you find out on that. And I think if you find out, yes, we can do it, it's going to take our computer guys a little while to figure it out, and then we can close it.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: 257, observation one, just for your information. This was identified in the Site Profile review, so it was not made a finding. It was just, you know, reiterating an observation. So that just gives you an example of what's a Site Profile issue.

276.1, inappropriate assignment of 73 to 76 neutron energy years and doses.

CHAIRMAN GRIFFON: Wait, wait, wait. Let's just go back to that. I'm glad you pointed that out, observation one, given the discussion with Knolls. Do we know if this is captured in the current Site Profile matrix?

MR. FARVER: Well, that hasn't

been revised. Well, it's in the Site Profile review --

CHAIRMAN GRIFFON: Yes.

MR. FARVER: -- from our last review, which was many years ago.

CHAIRMAN GRIFFON: So it was looked at as a finding --

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: This is one of those outstanding issues.

CHAIRMAN GRIFFON: Yes. And you said it was. Yes, I'm sorry. I didn't see that. Captured in the SC&A -- MR. FARVER: So when you look at this, would this impact cases?

CHAIRMAN GRIFFON: Yes. Okay.

MR. FARVER: If we could just get that Work Group to get going.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: Which Work Group?

MR. FARVER: Savannah River.

MR. KATZ: Yes, that's the Chairman.

CHAIRMAN GRIFFON: It has a good record at Rocky Flats, though. Okay. Go on to the next one.

MR. FARVER: We have 276.1, inappropriate assignment of neutron energy, year, and dose. Okay. The doses, the neutron energies reported in the dose reconstruction report are not the same ones that are in the IREP table. And this confuses me because, based on what Scott presented to us, the tables in the dose reconstruction report are generated by the tools. That's nothing the dose reconstructor would do. It's already generated, so I don't know why they would be different. I also don't know why it would not get caught in a peer review. You know, you should be looking and see if the energies are the correct energies.

Also, just as another note, the files that we had to look at did not have the

neutron dose calculations.

MR. SIEBERT: I have a question about that. They're in the tools that are in the claim.

MR. FARVER: The numbers in the IREP table, the final IREP table, those numbers are not in any of the tools that are contained, I could not find them in any of the workbooks that are contained in the files that we had. In other words, there might be several iterations, but whatever the final one was, it wasn't there.

MR. SIEBERT: Could it be -- are you saying that a tool didn't spit out exactly what the IREP sheet had, or the IREP sheet -- any single one of those lines you could not find in the tool?

MR. FARVER: The first part.

MR. SIEBERT: Okay. There's a reason for that.

MR. FARVER: Okay.

MR. SIEBERT: If you look in this

case, there are two tools, there are two external tools. The reason for that is this is a breast cancer, and that is back in the time frame when we were just beginning to implement the OTIB-17 shallow dose methodologies. The complex-wide tool that was used for this, for the best estimate portion of it, did not have OTIB-17 incorporated in it yet. So for the shallow portions of it, the normal Savannah River tool had to be run to create those portions of the calculation.

So at that time, unfortunately, it's just one tool wouldn't do it all, so we had to take two tools. And if you look, and you may want to do this because the neutron calculations are in there, everything that's in the final IREP sheet should be from one of those two tools.

MR. FARVER: I agree. And that's why I said I could not find the neutron numbers that were in the final IREP sheet in any of the workbooks that were provided.

MR. SIEBERT: Okay. That wasn't the question I initially asked, but okay.

MR. FARVER: I'm familiar with the shallow dose problem because we've come across that before, where the shallow doses are done with one tool and other doses are done with another. That's okay. It's when we look through all of them we still can't find them.

MR. SIEBERT: I will look at those and see what the issue is.

CHAIRMAN GRIFFON: So you have a SC&A suggested action here.

MR. FARVER: Yes, just so we can look at the calculations, if you just provide that workbook. It may have been that it was in a different workbook, and that workbook just wasn't part of the files that were sent to us or were put out there on the drive.

MEMBER MUNN: Sounds like the most likely reason.

MR. FARVER: That has happened before.

MR. SIEBERT: See, the neutron would not be done separately. It's done in those specific workbooks. So the two workbooks that are in there should reflect the neutron calculations that are in there. So I'll take a look --

MR. FARVER: Okay.

MR. SIEBERT: -- and do a comparison.

MR. FARVER: And then, of course, the other one is, well, how did that table get one heading when the IREP table had a different heading?

CHAIRMAN GRIFFON: Oh, the energy ranges?

MR. FARVER: Energy levels.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: Neutrons.

MR. SIEBERT: And that may have to do with the fact that separate tools were used and iterative form to create the report, and then the latest version may not have made it

into the table for the headings. I'm not going to say that that's the issue, but I could see that that would be the issue as to where that could have come from.

MEMBER MUNN: Yes. You'll have to look at it.

CHAIRMAN GRIFFON: Okay. Yes, NIOSH will review that. Next?

MR. FARVER: 276.2 is the same thing, only it's for missed neutron dose, I believe. I believe it's supposed to be for missed neutron dose.

CHAIRMAN GRIFFON: So NIOSH will look at that as well.

MR. SIEBERT: Same thing, yes.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: 276.3 is the incorrect assignment of '57 and '85 X-ray doses. The doses for '57 and 1985 were incorrectly assigned. Based on the actual records, only one PA chest X-ray examination should have been assigned in '57 and no chest

X-ray should have been assigned in '85. That's another QA concern, you know, what's going on, but we can't -- suggested action is we close it.

CHAIRMAN GRIFFON: Yes, no further action. QA item, no further action. Okay.

MR. FARVER: 276.4, incomplete assignment of fission product doses. Okay. This is more of a minor one. It has to do with the start dates, and is this the CADW one?

CHAIRMAN GRIFFON: Yes, one of the pieces of it.

MR. FARVER: One of the pieces. In other words, the dose reconstruction review comes up with a date for intakes of, let's say, from a mid-month to a mid-month or mid-year to mid-year, but the CADW program operates from beginning of year numbers, not specific dates. Dose-wise, it's not significant. It is more just the fact that the dates were different between the files and

the DR review.

So, now that we understand that, it's really no action.

CHAIRMAN GRIFFON: And it's identified as a quality assurance item, right?

MR. FARVER: Well, yes, they feel they should have caught that.

CHAIRMAN GRIFFON: Yes, yes, but no further action.

MR. FARVER: No. And then just a couple observations. I don't know if you want to go through them or not. Probably not.

And then on the top of page eight, we have 277.1. And this is: the shallow photon dose conversion factor in the dose report is not consistent with IG-001. Okay. And, in effect, it is consistent with IG-001, but it is not part of the dose conversion factors listed in Appendix A, and it is part of Table 4.1.A, which talks about special dose conversion factors for plutonium for 20 keV photons.

Okay. So now we have a Technical Basis Document that says less than 30 keV. We go to look up the dose conversion factor in IG-001 in Appendix A, and we find the less than 30 keV dose conversion factor, but it's not the one in the dose reconstruction. Okay? So, I mean, that's our process. And that's because they took it from Table 4.1.A, which I don't even have a problem with that. But somehow there needs to be a connection between the technical basis and, you know, that table 4.1.A. So put something in the technical basis that says, "for these plutonium facilities you can use the 20 keV values found in Table 4.1.A."

MR. SIEBERT: Well, I'm just thinking the guidance already exists in OCAS IG-001. And, I mean, you can put the, just refer to the exact same guidance again in a TBD, but, in effect, what we need to do is then any site that used plutonium we need to specifically call that out in those TBDs when

the guidance is already in OCAS IG-001.

MR. FARVER: Well, the confusion is, because you are -- and I don't remember the table that's in the TBD, I think it's two tables where it lists the energy, different energies for the different facilities, different photon energies. It doesn't say 20 keV. It says less than 30 keV. Now, even though 20 is less than 30, I'm saying it's confusing because you're expecting a less than a 30 keV dose conversion factor. But that's not what you use; you use a 20 keV. I'm not saying it's correct or incorrect. I'm just saying there needs to be a connection between those two somewhere that says it's okay to do that.

MR. CALHOUN: Well, yes, we'll have to look at that one. What I'm thinking is we're binning them because of the IREP inputs. Are we not?

MR. SIEBERT: Correct.

MR. CALHOUN: That's why we bin

them, because there's no 20 keV option. It's less than 30, the option.

MR. SIEBERT: Right. We use that in the less than 30 bin for plutonium facilities.

MR. CALHOUN: Yes. So I'd have to see if there's actually, I mean, is there a 25 keV or a 30 keV DCF that we're worried about confusing that with?

MR. FARVER: There are, Appendix A, you have a --

MR. CALHOUN: Of IG-001.

MR. FARVER: Of IG-001. You have the less than 30 keV dose conversion factor.

MR. CALHOUN: Correct.

MR. FARVER: Correct. Okay. Those are not the same values as in Table 4.1.A.

MR. CALHOUN: In the TBD?

MR. SIEBERT: No, that's also still in IG-001.

MR. FARVER: In IG-001.

MR. SIEBERT: It's all in IG-001.

MR. CALHOUN: Okay.

CHAIRMAN GRIFFON: What's in that table?

MR. FARVER: That's the 20 keV.

CHAIRMAN GRIFFON: Right. Okay. That's what I thought.

MR. FARVER: And then you go to your Technical Basis Document, which mentions nothing about 20 keV. It just says less than 30 keV.

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: And if your eye is looking for 20 --

MR. CALHOUN: I'll have to look. I'm not going to just say we're going to change the TBD to say less than 20. I'd rather remove the less than 20 or 20 from someplace else and keep everything less than 30.

MR. FARVER: You don't even have to say you're going to use less than 20. What

you could --

MR. CALHOUN: Or less than 30.

MR. FARVER: Or less than 30. You could say something in the TBD like a little asterisk at the bottom saying, "for plutonium facilities, it's appropriate to use the values in Table 1.A from IG-001."

MR. CALHOUN: Okay. Let me look at that.

MR. FARVER: Just make the link.

MR. CALHOUN: Alright.

CHAIRMAN GRIFFON: Alright. So NIOSH is going to check that.

MR. CALHOUN: Yes, we're going to check on that.

MR. FARVER: And it also causes confusion when you try to look at the table in the dose reconstruction report, because now it's going to list less than 30. But even that is understandable if you make the link in the Technical Basis Document.

MR. SIEBERT: Which also then

would link to the only bin you have in IREP.

MR. FARVER: Yes, that's okay.

CHAIRMAN GRIFFON: Right.

MR. FARVER: You can keep your bins.

CHAIRMAN GRIFFON: Okay.

MR. FARVER: 277.2, the DR failed to assign missed or unmonitored dose in '72. Okay.

CHAIRMAN GRIFFON: You gave this one to us, huh?

MR. FARVER: Yes, I threw this one back at you. The unmonitored dose for 72 could have been assigned. Single year additional dose would have no impact. It's a little bit more complicated than that. The employee worked at Savannah River from '55 through '92. There was no dose assigned for measured, missed, or unmonitored for '72. I don't know why none was assigned or why he wasn't monitored or what, but, I mean, he was continually employed from '55 to '92. From

the magnitude of the doses recorded for the other years the employee was badged, we thought it might be appropriate to either assign a coworker dose or an average adjacent year dose instead of nothing. That's the gist of it. It was just kind of odd, the one year standing out.

CHAIRMAN GRIFFON: Yes. And I'm not sure I understand NIOSH's responses that you could have. It doesn't say --

MR. SIEBERT: When you look at the record, yes, well, when you look at the record, it's a professional judgment decision at this point. When you look at the records, individual in '69 has 155 millirem, '70 has 10, which, realistically, that's below the limit of detection, so they didn't have anything. In '71, there's 75. '72, there's no entries whatsoever. '73, there's zero. So when the dose reconstructor looked at that at the time, they made a professional judgment that, in '72, perhaps he was not being

monitored and did not assign any unmonitored dose during that time frame.

When I look at it personally, I agree that, you know, it is reasonable to actually fill that gap with actual exposure from one of the years on either side of it. I think it's reasonable.

MEMBER MUNN: One of them is zero.

MR. SIEBERT: But I wouldn't say there's specifically anything driving the dose reconstructor to assign something.

CHAIRMAN GRIFFON: What happened after '73? Was it all zero?

MR. SIEBERT: '74, there's no -- once again, it's like '72, there's no entries. But when you look at the TIB-7 for Savannah River, it's written for 1973 through 1988, we know that they didn't list all the cycle data, so we make the assumption that there's no information available during that time frame, and we fill it with zero.

CHAIRMAN GRIFFON: Okay.

MR. SIEBERT: Just '72 is outside that time frame.

CHAIRMAN GRIFFON: Got it. I'm not sure what action is warranted, you know.

MR. FARVER: Well, you know, I don't know.

CHAIRMAN GRIFFON: Yes, I know, I know.

MR. FARVER: I mean, it is professional judgment. It also goes back to, you know, claimant-favorability. What do you do when you don't know? I don't know.

CHAIRMAN GRIFFON: Right. Right. So it's a fairly minor thing, but it --

MR. FARVER: Yes. It is.

MEMBER MUNN: The only thing we could possibly do as a Subcommittee would be to suggest to NIOSH that they include some kind of instruction as to how to proceed in cases like that, and I'm not at all sure that's appropriate for us to do.

CHAIRMAN GRIFFON: Do you have

instruction, though, generally speaking?

MR. SIEBERT: Well, if there's --

(Simultaneous speakers.)

MEMBER MUNN: If it's used --

CHAIRMAN GRIFFON: -- on either side.

MR. SIEBERT: I mean, at that point, yes, it's professional judgment for a single year.

CHAIRMAN GRIFFON: Right, right.

MEMBER MUNN: It's so easy in these cases for, when you have no knowledge at all of where these people actually were working on the site, to assume that they may have been -- anything that you do is an assumption. Anything.

CHAIRMAN GRIFFON: Yes, I don't think there's much that we can do as far as an action.

MEMBER MUNN: We can accept the professional judgment or not.

CHAIRMAN GRIFFON: Right. Yes.

MEMBER MUNN: It seems appropriate to me to accept the professional judgment of the reconstructor in this case. It's a single case. Since his exposure was not enormous in either case, unless there was an extreme event of some sort, which should have been caught in advance during that year, then the probability would be very high that his exposure would have been low in any case, and probably not significant in terms of dose reconstruction. That would appear to be the --

CHAIRMAN GRIFFON: Yes, I'm looking at SC&A's last line there. "Just because the additional dose does not affect the compensability decision does not excuse a missing dose." I mean, it is a judgment thing; I agree.

MEMBER MUNN: The predominance of the evidence would say that that exposure is unlikely to have been significant in the calculation.

CHAIRMAN GRIFFON: But that's not

the point, right?

MEMBER MUNN: No. What to do --

CHAIRMAN GRIFFON: Either way, I think it's either -- you know, it's not a big issue, but it's a question of -- it's not going to impact the overall decision, but --

MEMBER RICHARDSON: Do you know that they --

CHAIRMAN GRIFFON: David.

MEMBER RICHARDSON: Yes. Do you know that they recognized that there wasn't a value there? I mean, did they justify their decision to have an assumed value of zero?

MR. FARVER: There was nothing describing it in the dose reconstruction that I'm aware of.

MR. SIEBERT: But ambient dose was assigned for that year.

MR. FARVER: Okay.

MEMBER RICHARDSON: But the occupational dose wasn't?

MR. FARVER: Correct.

MEMBER MUNN: Correct. They got ambient.

MEMBER RICHARDSON: I mean, it seems like if you were, if there were no dosimetry records at all for the person, they would have justified how they were handling it, right? I mean, they would have had a coworker model or something.

MR. SIEBERT: You mean if there were no records for the individual at all?

MEMBER RICHARDSON: Yes.

MR. SIEBERT: Correct.

MEMBER RICHARDSON: And if there were no records for a period of five years, would there have been something done to describe how you were going to handle --

MR. FARVER: You probably would put something in there about if there's a five-year lapse of something, you would either do unmonitored or coworker. You may --

MR. SIEBERT: Right. It may be a general statement, such as, time frames when

the individual was monitored was based on badging. Other time frames, it was based on coworker or ambient, whichever was appropriate.

MR. FARVER: Right. This just happened to be one year.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: I'm in favor of accepting the dose reconstructor's judgment.

MEMBER RICHARDSON: And by unmonitored, you mean that there is not -- how do you know that they're unmonitored? Is it all quarters in that year in a logbook, or is it -- what was the source data that would -- from '72 onwards there's computerized annual dosimetry records.

MR. FARVER: This is where they just had the annual dose?

MR. SIEBERT: There's logbook entries up to a certain point where we do have cycle data. There's a time frame where we have annual summaries alone.

MR. FARVER: I'm trying to think of '72.

MR. SIEBERT: '72, I believe, is the end of the annual summary time frame.

MR. CALHOUN: I'm trying to look through the records right now, and I'm not quick enough.

MEMBER RICHARDSON: Because in different years they did different things for indicating, you know, that there were -- they used a missing value, I guess, as an indication of below detection. I'm wondering if that's what was recorded, or if by missing you mean that they didn't appear in the files.

MR. SIEBERT: From '73 through '88, your first definition is the one that is true, and we have a TIB on that that they did not record zeros when there were zeros. They may have been recorded as a blank, which means -- and since we do not have that information per TIB-7, we use, for '73 through '88, we fill those time frames with dosimeters, zero

dosimeters, such as if we have an annual value for a year, we will place that value on a certain number of dosimeters based on what the administrative control level was during that time frame and assume the rest of them are zeros, even though we don't have, they're filled in with blanks, we call those zeros. Prior to '73, that's not the case.

MR. CALHOUN: Right. Prior to '73, it looks like we got annual summaries. And in this case, '72 was one of the only years that actually showed nothing. It was a blank, based on just a quick review of what's actually here.

MR. SIEBERT: Correct. There's no annual summary dose at all.

MR. CALHOUN: Just a blank, right.

CHAIRMAN GRIFFON: Is that something we have to do --

(Simultaneous speakers.)

MR. CALHOUN: Based on what we know, it seems like that was the right

approach.

MEMBER MUNN: So if you were the dose constructor, what would you do? I would assign ambient dose and go on.

MR. CALHOUN: I think I would have too, based on the documents that we have that guide us.

MEMBER MUNN: Nothing to indicate undue exposure during that year.

MR. SIEBERT: But we've pointed out, it's also a reasonable assumption to -- I could see assuming something else as well. I mean, I don't think either one is unreasonable.

MEMBER MUNN: Either is justifiable on a judgment call.

MR. SIEBERT: And that's why I said professional judgment call.

CHAIRMAN GRIFFON: Is that a professional judgment call or a claimant-favorability call? That's the other part of it, you know. I don't know that there's any

way to professionally judge that. You know, you have a number, a blank, and a zero. How do I professionally judge what happened in that year? I have no information. It's just, it seems to me it's a policy decision more than a professional judgment. I mean, what's the judgment?

MR. FARVER: Well, if you look at it and you say, well, it could be a coworker, could be unmonitored, it could be ambient, and which one do you choose?

CHAIRMAN GRIFFON: Yes.

MR. FARVER: What's your hierarchy when you don't really know?

CHAIRMAN GRIFFON: Right. And, again, that, to me, I don't know, I would think that could be maybe more of a policy call, you know. Like if you don't know in this kind of circumstance, you always assign the whatever, the coworker model or the ambient model --

MR. FARVER: Do you go middle of

the road?

CHAIRMAN GRIFFON: Yes, right.

MR. FARVER: I don't know.

MEMBER MUNN: It's a legitimate choice either way.

MR. CALHOUN: This individual stated that he worked in the 700 area from '72 to '92 and only wore a dosimeter when he went out into the field. That's in the CATI. He said it.

CHAIRMAN GRIFFON: Alright. Well, that's stronger --

MR. CALHOUN: So ambient fits.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: It's unmonitored.

MR. CALHOUN: Ambient. Only wore a dosimeter when he went out into the field.

MR. FARVER: Unmonitored.

MR. CALHOUN: Ambient. You only wear a dosimeter where you need to be monitored, out in the field. So ambient works, right?

MEMBER MUNN: Right.

MR. CALHOUN: Every facility that I've worked at, when you were at your desk you didn't wear your dosimeter. Unless your desk was in the controlled area.

MEMBER MUNN: I had mine on all the time, but --

MR. CALHOUN: I know. A lot of you people hid them in your drawers.

MEMBER MUNN: You know I didn't.

MR. FARVER: But that's a whole other can of worms you don't want to get into.

CHAIRMAN GRIFFON: Yes.

MEMBER MUNN: Yes.

MR. FARVER: You wore one when you walked into the gate, and took it home with you at night.

MEMBER MUNN: Yes, I did. I did that.

MEMBER POSTON: I did, too. That's the way it was at ORNL.

MEMBER MUNN: Yes.

MR. CALHOUN: I just found that in the CATI.

MEMBER POSTON: Your badge got you in the front gate.

MEMBER MUNN: Yes.

MEMBER POSTON: You better be wearing it.

MR. CALHOUN: You were on the wrong team.

I don't know. Seems to me like a reasonable assumption.

MR. FARVER: I don't know that there's anything to fix. It's more of something to be aware of. You know, if it would have been a five-year lapse, they probably would have wrote something in there.

CHAIRMAN GRIFFON: Yes.

MR. KATZ: So is that closed?

CHAIRMAN GRIFFON: Yes, I think, I mean, I think it's closed. Like Doug said, it's something to be aware of as this comes up. I'm not so much worried about it for this

case. Obviously, we're talking about a small --

MR. FARVER: If there were an easy answer to that, then I would have wrote it in.

MR. SIEBERT: That's why I said we'll talk about it.

CHAIRMAN GRIFFON: Alright. I'm putting "SC&A accepts NIOSH's argument, no further action." Actually, I'll put "SC&A accepts NIOSH's approach," rather than "argument."

MR. FARVER: Combative discussion.

CHAIRMAN GRIFFON: Right. Okay.

MR. SIEBERT: Sounds like we're getting along.

CHAIRMAN GRIFFON: Yes, okay. So are we on the next one, or do we want a break?

MEMBER POSTON: What's the next one?

MR. FARVER: 277.3 would be the next one.

MR. SIEBERT: There's two more in

this case, .3 and .4.

CHAIRMAN GRIFFON: Okay. Let's finish up this case.

MR. FARVER: Okay. This next one is a tritium issue, and this is one that comes up several times. And the gist of it is, over the years, since the TBD was issued back in 2005, things have changed. There's more information available, and they do things differently according to the DR guide. Is that fair to say?

MR. SIEBERT: Reasonable, yes.

MR. FARVER: Okay. Fair, fair. Okay. And this is one of those cases where the information contained in the DR guide is not consistent with what is in the Technical Basis Document, the current version of the Technical Basis Document. So when you go in the TBD and look for the tritium MDAs, you will come up with one number, but they are using a different one based on increased knowledge. And the reason we wrote it as a

finding was because it was different than the values in the Technical Basis Document, so we suggest that you revise your Technical Basis Document, which you already know.

MR. CALHOUN: I can't disagree with that.

MR. FARVER: And this is --

MR. SIEBERT: We agree wholeheartedly.

MR. FARVER: This has come up several times about the tritium issue, so we can take care of it.

MR. CALHOUN: Yes, I agree.

CHAIRMAN GRIFFON: So NIOSH and SC&A agree --

MR. CALHOUN: Yes, and it's --

CHAIRMAN GRIFFON: -- and are planning revision.

MR. CALHOUN: It's planned. It's just one of those ones. That SRS TBD is a challenge.

MR. FARVER: Now, I didn't check,

but I'm hoping this is in your DR guide.

MR. SIEBERT: Correct.

MR. FARVER: Okay.

MR. SIEBERT: And another thing to point out, especially on this one, actually for a lot of the other ones, as well, they're not really MDAs. The detection values that are listed in the TBD are based on 5 microcuries per liter, and that's when Savannah River said, oh, here's where we're going to start calculating doses. They never said that that's all they could detect. But in the early version of the TBD, we said, well, that's a high number, we'll go with that in the initial version of the TBD until we have more information. That's what's in the TBD.

CHAIRMAN GRIFFON: I see.

MR. SIEBERT: When you go back and in this claim itself, this person has tritium monitoring, and they are listed as less than 1 microcurie per liter. So it is clear that

this person had monitoring and the values were less than 1 microcurie per liter, which is what is reflected in the doses that we assigned, as opposed to the 5 mics per liter from the TBD. I see your point, once again. But I just want to bring up, even in this case, with this individual's case, they had monitoring in their own case that went against the TBD.

MR. FARVER: Okay. But you understand there's two tables, there's Table 4.5.2-1 that lists doses for certain years.

MR. SIEBERT: Which are based on --

MR. FARVER: Okay. And then there's OTIB-1, which also has similar table --

MR. SIEBERT: It pulled the same thing and, once again, it's based on those values.

MR. FARVER: Okay. And all we're saying is it's not consistent.

MR. SIEBERT: And all we're saying is I agree wholeheartedly, and the next version will update that.

MR. FARVER: So what are we arguing about?

MR. SIEBERT: I don't know.

MR. FARVER: Okay.

MR. SIEBERT: We're just trying to waste time until we can leave.

(Laughter.)

MR. KATZ: So is this closed?

CHAIRMAN GRIFFON: 277.4 is closed. Well, they agree, NIOSH is planning on updating the TBD document.

MEMBER CLAWSON: What was the number?

CHAIRMAN GRIFFON: 277.4.

MR. FARVER: 277.4, NIOSH failed to address all incidents reported by the -- something. It must be "employed." Based on the approach used and the internal doses were applied based on the highest recorded intakes

at the site, it's unlikely that, basically, any additional dose or any dose went unassigned.

About the only thing we can bring up is that in the CATI the employee expressed a concern that the dosimeter he was wearing was not necessarily representative because he was wearing it on his chest and he was leaning over and looking into a tank. Okay. So it wasn't necessarily representative of the location of his cancer, you know, the brain area. About the only thing we can say is it would be nice if he would have mentioned something like that in the report. You know, addressed that issue that the employee had, not necessarily do any doses differently, just kind of address their concern. But we suggest closing it.

CHAIRMAN GRIFFON: Especially, I can't imagine his work would require him to be in that position for extended periods of time.

MR. FARVER: And that's all for

277.

CHAIRMAN GRIFFON: No further -- I'm just going to close that.

MR. KATZ: Before you take a break, I want to report on something else that's in the offing.

CHAIRMAN GRIFFON: Okay. Yes, go ahead, Ted, and then we'll take a break.

MR. KATZ: Okay. So this isn't related to this whatsoever, but at the last Subcommittee meeting we had a discussion about a General Atomics case, which DCAS had raised questions about it with the Department of Labor and Department of Labor had said, sorry, this doesn't fit into the SEC Class, do the dose reconstruction. And then Brad and John and Doug were going on with their concerns about whether that should be followed up, and we said this is really not for the Subcommittee to do, nor is it DCAS to go further to battle, but that I would bring it to our ombudsman to pursue, which I did.

Denise.

So I asked Denise to look into it. I gave her details about the situation, and then I kept in touch with Denise, and we've been pursuing this. And the good news is that -- and this person was a draftsman and an office worker, and so the question was: why would this person have been in one of the buildings that was covered by that SEC Class?

So Denise did her usual bang-up job in rattling all the cages and found, actually found someone who knew this worker, knew someone from General Atomics that worked there and knew that the draftsmen were actually in one of the buildings that was covered by the SEC Class.

So the good news is this person was in a building that is actually covered by the designation. DOL didn't know that before Denise found, through very extensive effort, a worker who knew the site and knew that situation. And so it hasn't, it's not

finished, the adjudication process, but it looks like that person will end up in the Class because the draftsmen were in a building that's covered by the SEC site.

CHAIRMAN GRIFFON: Well, good.

MR. KATZ: So I just wanted to let you know because you had asked me to follow up on that, and I have, and that's what's come of it, which is a good result for the individual.

CHAIRMAN GRIFFON: Yes, definitely important for that individual. Yes. Good.

MR. KATZ: So thank you for raising it. You all made a difference for that individual, or it was collaborative in this case, I guess.

CHAIRMAN GRIFFON: And thanks to Denise for her work.

MR. KATZ: Yes, absolutely. Always.

CHAIRMAN GRIFFON: Okay. Let's say we take a break and then try to go until five. Is that -- anybody got a flight?

MR. FARVER: I've got a 6:00 flight.

CHAIRMAN GRIFFON: You got a 6. Alright. Maybe quarter of five? We'll stop at quarter of five. I mean, we don't want to -- I don't know. Security has probably got five people in there, right?

MR. FARVER: It usually depends on how much time we have.

(Laughter.)

CHAIRMAN GRIFFON: Yes. There's usually more -- I don't want to say that. Okay. Let's take a ten-minute break.

(Whereupon, the above-entitled matter went off the record at 4:13 p.m. and resumed at 4:26 p.m.)

CHAIRMAN GRIFFON: Alright. David? David Richardson or whoever is online, we're just going to go for about 15 or 20 more minutes and just a couple of issues to wind down here. The first thing, well, I think we should take care of the two administrative

items first, and they overlap a little bit. But in terms of, during the break, Scott asked me, you know, we're focusing on these 10th through 13th sets by sites, and I think it seems to be working. I mean, NIOSH and SC&A seem to think it's a good way to go forward. It seems, at least so far to the Subcommittee, to be working.

So the question for NIOSH, that NIOSH is asking is what are the next two in line so we can be prepared for the next meeting going forward? So I'll ask Doug on that.

MR. FARVER: Okay. Since for this next section or next group, we're planning to go back and do a check on those Site Profile changes, check on any SEC impacts --

CHAIRMAN GRIFFON: That's the second part of this question, which is that look-back, as Jim Melius described it --

MR. FARVER: So the next time I'm here and I'm presenting the findings, we'll

have this section all in front of the matrix to look at. So we'll have all the information together, so that's what we're going to work on for the next package. So the next site we pick should be one that it's okay to go back and look at the Profile and the SEC and, you know --

CHAIRMAN GRIFFON: Yes. It's not sort of --

MR. STIVER: Hey, Doug, this is John Stiver. I think the next one, the next two in line, just based on the number of cases and findings, is Los Alamos and Rocky. And maybe Rocky might be better, if we're planning on doing this look-back, for some of the reasons that Stu mentioned earlier today.

CHAIRMAN GRIFFON: Well, yes.

MR. FARVER: It's up to you.

MR. STIVER: In either case, there's not that many findings. I think there's like 14 or 15 each.

MR. FARVER: If you want to do

Rocky, that's not, you know, a cause of controversy or anything, we could do that. We talked about Los Alamos. I talked with you about that. You said, you know, that may or may not be.

CHAIRMAN GRIFFON: Well, I think Rocky and Los Alamos both are in the midst of some SEC evaluation.

MR. FARVER: Now, there's always Nevada Test Site.

CHAIRMAN GRIFFON: Yes, yes.

MR. FARVER: There's nine findings, so that's a small number, something easily to handle. I don't know. We might want to do Nevada Test Site, if that's a more stable type of place.

CHAIRMAN GRIFFON: How many findings for the other sites?

MR. FARVER: It was like 14 for Rocky and 15 for Los Alamos.

CHAIRMAN GRIFFON: And, really, you're more interested in the number of cases,

not so much the number of findings.

MR. FARVER: Yes. Los Alamos is only three cases or fifteen findings.

MR. STIVER: NTS only had nine findings and four cases.

MR. FARVER: And Fernald is ten findings on five cases.

CHAIRMAN GRIFFON: And Rocky Flats is how many cases?

MR. FARVER: Down to the R's. Fourteen findings on eight cases.

CHAIRMAN GRIFFON: I think that might be the best. Yes, I think that might be the better one.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: I don't know what other people feel, but I think that will at least give you a better sample and not too huge that, you know --

MR. FARVER: Yes.

CHAIRMAN GRIFFON: Okay. So Rocky Flats, I think, for the look-back part, and

then what other site for the --

MR. FARVER: Well, no, the Rocky Flats we're going to do the look-back and the findings.

CHAIRMAN GRIFFON: Right. But then what other one just for the findings?

MR. FARVER: Oh, I was going to propose that we do all these the same way then.

CHAIRMAN GRIFFON: Yes.

MR. FARVER: So as the next site comes up, we would do a look-back and findings.

MR. KATZ: Well, we just want to do -- we're trying to pilot that, so the look-back is just for one.

CHAIRMAN GRIFFON: Yes, just for the Rocky now.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: Only because we're not sure what we're going to get out of it, you know. Yes, we want to see sort of --

MR. FARVER: It's probably easier for us to do them both at once. But, I mean, that's okay. Okay. And then I guess the site really doesn't matter after that.

MR. KATZ: Well, it's in numbers. Where are we? Rocky Flats was one. LANL, is that another one?

MR. FARVER: Yes. It's only three cases, but it's fifteen findings. So it depends on what numbers --

CHAIRMAN GRIFFON: Why don't we do a look-back and findings for Rocky and findings for LANL?

MR. FARVER: Okay.

CHAIRMAN GRIFFON: Just move ahead that way.

MR. KATZ: Is that enough work to get adequate progress on, those two, or do we need to add another?

CHAIRMAN GRIFFON: What's next in line?

MR. FARVER: Oh, no. I mean, I'm

not sure we'll -- well --

MR. KATZ: To be able to get them out -- okay.

MR. FARVER: Then my concern would be getting it all done.

CHAIRMAN GRIFFON: Yes, okay. Those will be our next two in line. Okay. And we can --

MR. SIEBERT: Now, did you say LANL? The second one?

CHAIRMAN GRIFFON: Yes, LANL.

MR. SIEBERT: Now, my question is, what I was asking for is what are the two next groupings that we're going to do, such as the grouping that we'll talk at the next meeting, and then a heads-up for the grouping that will be the meeting after that so that we get the heads-up. Are you talking Rocky and then LANL or both of them for the next meeting?

MR. KATZ: The next meeting is Rocky and LANL.

MR. SIEBERT: Yes, I'm hearing two

different things.

MR. KATZ: Right?

MR. FARVER: I think Rocky would be enough.

MR. KATZ: Oh, really? Okay.

MR. SIEBERT: That's why I'm asking the question.

CHAIRMAN GRIFFON: Yes. Probably realistically, look what we got on this one --

MR. CALHOUN: And there's got to be some SRS in that next meeting, too, I would think.

CHAIRMAN GRIFFON: Right.

MR. FARVER: Still Category A.

MR. SIEBERT: So we'll do Rocky for the next meeting and then --

CHAIRMAN GRIFFON: LANL for the second.

MR. SIEBERT: LANL at least is on the table for the next one, and we can always decide at the next one. Okay.

CHAIRMAN GRIFFON: The next

meeting we can put another one out. Yes, whatever.

MR. FARVER: The next meeting, if we decide we like the look-back approach, we can always add it.

CHAIRMAN GRIFFON: Yes, okay.

MR. FARVER: Okay.

CHAIRMAN GRIFFON: And do we want to, while we're doing -- well, it should probably just be kind of the end of it. Do we want to put a date for the next -- might want to let everyone look through here.

MR. KATZ: Yes.

CHAIRMAN GRIFFON: David, are you online? David? Ted, what would be our, we've been doing these two months apart?

MR. KATZ: Yes, we're trying for approximately two months apart.

MEMBER MUNN: So we're looking at October. I'll be out of pocket from the 4th through the 18th.

MR. KATZ: Okay. So let's look

after the 18th then.

CHAIRMAN GRIFFON: So you're looking October? Is that what you're looking at, Ted?

MR. KATZ: Yes, October. And she's out of pocket until the 18th.

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: Unless you do it the 1st, 2nd, or 3rd.

MR. KATZ: No, we can't because that's the new fiscal year. It's a problem.

MEMBER MUNN: It is.

CHAIRMAN GRIFFON: Well, the week of the 22nd through 26th is bad for me. You said 4th through the 18th is bad for you, Wanda?

MR. KATZ: So what about the last week?

CHAIRMAN GRIFFON: The last week I think --

MR. SIEBERT: I don't know how important I am, but I'm gone at the Bioassay

Conference the last week.

MR. CALHOUN: You are very important.

MR. KATZ: According to Grady.

MR. SIEBERT: Wow.

CHAIRMAN GRIFFON: I'm at a conference. Yes, I'm away.

MEMBER MUNN: So Scott's --

MR. KATZ: Scott, how long are you gone? That whole week?

MR. SIEBERT: The whole week, yes.

MR. KATZ: Okay.

MEMBER MUNN: October.

MR. KATZ: So then that puts us into --

MR. FARVER: November.

MR. KATZ: -- the first full week of November? That's Election Day week, by the way.

MEMBER MUNN: We have Procedures on the 1st. We have Procedures on the 1st.

MR. KATZ: Yes, but that doesn't

work for Scott, anyway.

CHAIRMAN GRIFFON: I can't do the 1st.

MEMBER MUNN: You won't be back by Friday, huh?

MR. KATZ: So what about later in Election Day week?

CHAIRMAN GRIFFON: We have a Board call on the Monday, right? So later that week you're saying?

MR. KATZ: Yes. So the 6th is Election Day, and you probably don't want to -- so you could travel to -- what about the 7th?

MEMBER MUNN: I could travel on the --

MEMBER POSTON: I'm not available the rest of that week.

MEMBER MUNN: The 7th would be fine for me.

CHAIRMAN GRIFFON: You're not available that week?

MR. KATZ: John. That doesn't work for John. Okay. So we're up to --

CHAIRMAN GRIFFON: How about the 12th?

MR. CALHOUN: The 12th is Veterans' Day.

MR. KATZ: All right.

MEMBER MUNN: That week doesn't work for anybody?

MR. CALHOUN: I don't have a lot marked on my calendar, but I've got the important stuff.

CHAIRMAN GRIFFON: The 13th?

MR. KATZ: The 13th?

CHAIRMAN GRIFFON: The 13th? Do I hear a second on the 13th?

MR. KATZ: It could be the 13th because it can't be the 14th, 15th, or 16th. OGC is not available then.

CHAIRMAN GRIFFON: Oh, okay. 13th, Wanda?

MEMBER MUNN: The 13th is fine for

me.

MEMBER CLAWSON: I'm conflicted on that one.

CHAIRMAN GRIFFON: Oh, you are?

MEMBER CLAWSON: Yes.

CHAIRMAN GRIFFON: Oh, gosh.

MEMBER MUNN: You just don't like Tuesdays, do you?

CHAIRMAN GRIFFON: Did we rule out the 9th? Friday the 9th?

MEMBER POSTON: I'm conflicted. I got a conference, a science teacher conference from Wednesday through Saturday.

CHAIRMAN GRIFFON: The rest of that week. Okay.

MEMBER POSTON: Yes.

MEMBER MUNN: So you can't do Election Day because --

CHAIRMAN GRIFFON: How about the 15th or 16th?

MR. KATZ: Those are OGC --

CHAIRMAN GRIFFON: Oh, OGC.

MR. KATZ: -- is not available.

CHAIRMAN GRIFFON: Geez.

MR. KATZ: I mean, I'm not, we don't usually have OGC activities, but they asked me not to schedule anything when they're -- even though.

CHAIRMAN GRIFFON: Yes.

MR. CALHOUN: Well, we could ask them.

MEMBER CLAWSON: What if we went to the last part of September?

MEMBER POSTON: What's OGC?

MR. KATZ: Office of General Counsel. Lawyers.

MEMBER POSTON: We don't need lawyers. Shakespeare took care of them a long time ago. What did you say, the last week in September?

CHAIRMAN GRIFFON: Yes, what about backing up to the last week.

MEMBER POSTON: I can do that whole week, the 24th through the 28th.

CHAIRMAN GRIFFON: How about the 28th? Yes, that is the end of a fiscal year. That's what I get concerned about, you know. The 28th?

MEMBER MUNN: Of September?

CHAIRMAN GRIFFON: September. It's kind of tight.

MR. KATZ: Really tight, yes. I don't think so.

CHAIRMAN GRIFFON: Yes, yes.

MEMBER MUNN: Especially right after Denver.

MEMBER POSTON: We need to get the federal government to go to an academic year.

MR. KATZ: That's coming right around the corner. Probably next year.

(Laughter.)

CHAIRMAN GRIFFON: All right. Well, are we back out in November then?

MEMBER MUNN: Unless we can rethink that first week in October.

CHAIRMAN GRIFFON: What about the

19th?

MR. KATZ: It doesn't work for that reason.

CHAIRMAN GRIFFON: What about November 19th?

MEMBER CLAWSON: I was conflicted on the 20th, so what about the --

CHAIRMAN GRIFFON: You can't make the 9th? Oh, yes, travel-wise, you couldn't make the --

MEMBER CLAWSON: What about the 26th?

CHAIRMAN GRIFFON: Yes, that's okay with me.

MEMBER POSTON: Does that mean we'd travel on the 25th, which is the week of Thanksgiving?

MR. KATZ: Oh, that's not good.

MEMBER POSTON: The worst time in the world to travel is that Sunday.

CHAIRMAN GRIFFON: Yes, that's the worst travel day.

MR. KATZ: Wait. What day is Thanksgiving?

MR. CALHOUN: Thursday the 22nd.

CHAIRMAN GRIFFON: The 22nd.

MR. KATZ: Yes, so the 27th, you'd have to do the 27th. You couldn't do the 26th.

CHAIRMAN GRIFFON: All right. The 27th.

MR. KATZ: Yes, I know you don't like that.

CHAIRMAN GRIFFON: That's all right.

MR. KATZ: Okay. November 27th?

CHAIRMAN GRIFFON: Yes.

MR. FARVER: Now, the other option --

CHAIRMAN GRIFFON: Well, that only took 15 minutes.

MR. FARVER: -- is we're not going to get another one in before the end of the year, so if you just wanted even to stretch it

out to the beginning of December. It's up to you, but --

CHAIRMAN GRIFFON: Well, then we'd have to add two more sites for you then, Doug.

MEMBER MUNN: No, you really don't want to do that because --

CHAIRMAN GRIFFON: I think let's stick with this date.

MEMBER MUNN: -- you've got a big meeting --

MR. KATZ: November 27th.

MR. FARVER: That's fine.

MEMBER MUNN: -- coming up on the 10th in Tennessee.

CHAIRMAN GRIFFON: Oh, yes, right.

MEMBER MUNN: You don't want to do that. The 27th?

MEMBER POSTON: When is the Board meeting?

MR. KATZ: It's early December.

MEMBER MUNN: The 27th, right?

CHAIRMAN GRIFFON: Yes.

MEMBER CLAWSON: The Board meeting is the 10th.

MEMBER MUNN: It's the 10th through the 12th.

MEMBER POSTON: And we don't know where it's going to be yet, do we?

MEMBER MUNN: Tennessee. That's what we said before.

MEMBER POSTON: Tennessee where?

MR. KATZ: Tennessee.

MEMBER POSTON: So just pick out any part of Tennessee you like.

CHAIRMAN GRIFFON: Okay. The last thing that I --

MEMBER MUNN: Are we going to meet at 8:30 in the morning?

MR. KATZ: Oak Ridge is where we're going to be.

CHAIRMAN GRIFFON: Well, I'll just -- that's all right. We don't even have to discuss this one. We discussed it earlier. I think we should probably call it quits here

because Doug has the closest margin here, so we don't want to -- anything else? I don't see how opening up a new case at this point. I think we'll just close it here. Anything else for the record? No?

MEMBER MUNN: Don't believe so.

CHAIRMAN GRIFFON: All right. Meeting is adjourned.

(Whereupon, the above-entitled matter was adjourned at 4:40 p.m.)