UNITED STATES OF AMERICA

CENTERS FOR DISEASE CONTROL

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NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND WORKER HEALTH

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104th MEETING

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WEDNESDAY MARCH 25, 2015

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The meeting convened at 9:00 a.m., Pacific Time, in the Red Lion Richland Hanford House, 802 George Washington Way, Richland, Washington, James M. Melius, Chairman, presiding. JAMES M. MELIUS, Chairman HENRY ANDERSON, Member JOSIE BEACH, Member BRADLEY P. CLAWSON, Member R. WILLIAM FIELD, Member* DAVID KOTELCHUCK, Member RICHARD LEMEN, Member* JAMES E. LOCKEY, Member WANDA I. MUNN, Member JOHN W. POSTON, SR., Member DAVID B. RICHARDSON, Member* GENEVIEVE S. ROESSLER, Member PHILLIP SCHOFIELD, Member* LORETTA R. VALERIO, Member* PAUL L. ZIEMER, Member TED KATZ, Designated Federal Official

REGISTERED AND/OR PUBLIC COMMENT PARTICIPANTS:

ADAMS, NANCY, NIOSH Contractor AL-NABULSI, ISAF, DOE ASHLEY, MORGAN BOYD, LARRY CARY, ANNETTE CLARK, KYLE CRAWFORD, FRANK, DOL DAY, MARY DEMERS, JOE, DOE DOMINA, KIRK ESTRADA, LUIS FINDLEY, MITCH, ORAU Team FINE, SADIE, DOL FITZGERALD, JOE, SC&A FORDHAM, CHARLES FROWISS, AL* GARZA, MARY GLOVER, SAM, DCAS HARTSFIELD, DEKEELY, HHS HINNEFELD, STU, DCAS JOYNT, MARCIA JOYNT, TOM KINMAN, JOSH, DCAS KNOX, WAYNE

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*Participating via telephone

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1	P-R-O-C-E-E-D-I-N-G-S
2	(9:19 a.m.)
3	CHAIRMAN MELIUS: Good morning,
4	everybody, and welcome to this, the 104th meeting
5	of the Advisory Board on Radiation and Worker
б	Health. We're just about to get started, but
7	first we have to do some administrative issues,
8	and I'll turn it over to Ted Katz, the Designated
9	Federal Official.
10	MR. KATZ: Yes. Welcome, everybody.
11	All right. First, some preliminaries for people
12	in the room. The materials that are going to be
13	presented today and tomorrow are on the back
14	table. So you can follow on. Both the
15	presentations should be back there, but also sort
16	of the background reading materials that the
17	Board Members have that relate to those
18	presentations, they should be back there too. So
19	you are welcome to take any of those materials.
20	They're up for grabs.
21	For people on the line, these same
22	materials are all posted on the NIOSH website,
23	under the Board's section, for the schedule of

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meetings for today's date. So you can go there and these are all PDFs online. You're welcome to view them, download them, what you want.

Also a note for people that are on the 4 5 line: please, as you're listening, keep your There is a public comment session 6 phones muted. later today, at 4:30, 7 in which we'll receive public comments, first from people in the room 8 and then from people on the line. 9 And then you'll be able to speak. 10 But otherwise, for everyone in the public, you should really have 11 12 your phones muted.

13 And to mute your phone, most people 14 don't have that on their phone, perhaps, but press *6, that'll mute your phone. And then none 15 16 of the noise from your phone will make it into the audio for everyone else trying to listen in 17 and hear the meeting. Now, you press *6 again 18 19 and that'll unmute your phone. So, *6 to mute your phones. 20

And the other thing is, please, no one on the line put the call on hold at any point. Just hang up and dial back in if you need to, but

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1 hold often causes problems for the audio for everyone you've left behind. So, please do that. 2 The agenda for today's meeting is also 3 4 posted with the reading materials at the NIOSH 5 website, as Ι said, so you'll know what's happening when. 6 7 And now let me just run through roll And I will, for call for the Board Members. 8 9 Board Members, where there is a potential -- or a conflict for a Board Member, I'll note that as 10 we go through the roll call after you register 11 12 your attendance. And we'll just do this 13 alphabetically. 14 (Roll call.) MR. KATZ: And that covers roll call. 15 16 Yeah, that's it, I think. Dr. Melius, it's your meeting. 17 CHAIRMAN MELIUS: Okav. Thanks, Ted. 18 19 And we'll start, as usual, with our NIOSH Program I will add, just as an introduction to 20 Update. what Stu is presenting, I asked him to include an 21 22 update on NIOSH's sort of quality assurance 23 efforts regarding dose reconstructions.

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Later today, we want to discuss some issues related to the Board's dose reconstruction review efforts and so I thought getting an update from Stu would be helpful as a sort of background for that. So, go ahead, Stu.

6 MR. HINNEFELD: Thank you, Dr. 7 Melius. And hello, everyone. I'm Stu Hinnefeld, the Director of the Division 8 of Compensation Analysis and Support at NIOSH, 9 the group of NIOSH that performs this work for the 10 11 EEOICPA program.

12 Getting right into things here, I 13 usually try to provide a little program news at 14 each meeting. I've mentioned here that I'll 15 cover briefly these bullet topics here.

16 I've mentioned at previous meetings that we had been working with the Department of 17 Labor and sort of increasing our involvement with 18 19 them in certain aspects of the program. Thev 20 came to us with а request for assistance, 21 essentially, on Part B, which is the radiation 22 and cancer claims, and also on Part E, which is 23 the toxic exposure and health outcome claims,

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which NIOSH has no statutory role in.

They just said, is there something you can do in the existing framework to give us some help there? And so we've had this series of meetings with them, and let me start with the Part B which is cleaner.

7 They were concerned that the dose reconstruction part of a case wasn't getting a 8 full hearing at the adjudication step. 9 And because they said, well, that's NIOSH's ball, you 10 know, NIOSH's bit, we don't really know, you 11 12 know, in terms of technical objections, and so we 13 said, well, ask us. You know, their own 14 regulation says that the hearing officer can do whatever investigation is necessary in order to 15 16 resolve issues that are raised during And we said, ask us. 17 adjudication.

And so we've now embarked on sort of a pilot program that they will send us questions, the hearing officer will send us questions, that are raised during adjudication. And we would respond back, either saying something to the effect that the information that was provided is

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consistent with the information that we had, and 1 so the information we built still supports the 2 dose reconstruction, or we would respond back and 3 say this information is not consistent with the 4 5 information we had, and so the current body of 6 knowledge does not. support the dose 7 reconstruction, it should probably be returned for a new dose reconstruction. 8

that does not mean the 9 that Now, 10 outcome of the case is going to change. You might still have a dose reconstruction, you know, 11 12 the corrected dose reconstruction still could be 13 less than 50 percent PoC. But we've said, we 14 have agreed, and we've done a couple of pilot In addition, in an attempt to decrease 15 cases. the number of objections brought at adjudication, 16 as we've changed our communications to claimant's 17 when we send the draft dose reconstruction, we've 18 19 kind of emphasized the language about bringing questions about the dose reconstruction to the 20 21 closing interview and let's resolve those there. 22 This is your best opportunity to get questions 23 about the dose reconstruction resolved. And

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let's try to resolve them now before it goes to
 adjudication.

So we've done those things to try to 3 improve that process. So far, Ι 4 quess, we haven't really had a lot of feedback. 5 It's only happened in a few instances. And most cases that 6 7 we handle don't really have serious questions or objections when we get to close out interview, 8 but there are some that do. 9

10 So we haven't got a lot of experience 11 on it, but so far it's encouraging. Labor is 12 encouraged by the information we're providing in 13 this fashion.

14 With respect to their request about Part E, we've had a couple meetings with Labor 15 16 from people in other parts of NIOSH, not DCAS. I went, I guess, to introduce people, because I 17 certainly couldn't add much to the conversation. 18 But when it was clear that there was 19 going to be an advisory board on toxic substances 20 21 and worker health, essentially a Part E board, 22 which is being developed now, when that became

23 clear, then we at NIOSH said, well, we don't want

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to start down this road and give them a lot of advice that may be counter or different, because they're going to get, probably, their own advice from this Part E board, let's wait and see what happens.

6 Whether NIOSH will have any particular 7 involvement in that is an open question, on Part 8 E. As long as I don't have to do anything on 9 Part E, that would be better. Speaking not just 10 selfishly, it would be better for everybody in 11 Part E if I didn't have anything to do with it.

My computer has a mind of its own here. So let me get back to where I was. I've had touchy touchpads before, but I was nowhere near it, so I don't know what happened.

16 We've had a couple of worker outreach since 17 sessions our last Board meeting in We went down to Carlsbad. 18 February. These are 19 joint outreach task group meetings, which is a organization 20 joint among DOE, DOL, us, the 21 ombudsmen for both us and DOL, and the Former 22 Worker Monitoring Program in DOL. And the Former Workers Program, I think, was the main emphasis 23

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on going down to Carlsbad. That's where the
 Waste Isolation Pilot Project is.

It's not very high on our claim list. 3 4 We had very few claims from Waste Isolation Pilot 5 Project, and all of them have employment elsewhere in addition to WIPP. 6 So, but we went 7 and supported that. That one was, Ι quess, modestly attended, you would say. 8 There wasn't a lot of attendance at that. 9

And then last week, in Denver, we had 10 11 ioint outreach task meeting in а qroup 12 conjunction with our yearly meeting with program 13 advocates out there. And that was pretty well attended, as you can imagine. There's always a 14 lot of interest in Denver about Rocky Flats and, 15 16 of course, a lot of comments that they would like 17 to have the SEC extended, as you would expect.

think those meetings went pretty 18 Ι 19 well, overall. I don't think you ever convince anybody, or you don't convince very many people 20 21 in those meetings to change their view of you, 22 but I think being there in public helps. They, 23 at least, have а face to put with NIOSH.

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Unfortunately, it was mine, but they could have
 had a better face than that.

And then we also met with, each year 3 for the last two years, the Department of Energy 4 and Department of Labor and our Ombudsman have 5 met with a collection of advocates. 6 And last 7 year about this time, the advocates announced the formation of this volunteer advisory board for 8 Part E, if you recall. And they'd sent some 9 10 correspondence, they've had some meetings, and that's largely the group that we meet with. 11 So 12 we met with them again. The advocates prepared 13 the agenda list. It was lengthy, but almost all of it was Department of Labor issues and Part E 14 A couple for us. They have to do with 15 issues. 16 our communication, how we're communicating dose 17 reconstructions and how make can we more information available. 18

19 pursuing of those And we're some additional 20 things, like maybe getting some 21 references cleared by DOL to be made public. So 22 now only our White Papers, but the references that we refer to in the White Papers might be 23

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1 available to the public.

So we're pursuing that with Department 2 of Energy and it's not clear yet how much of a 3 work burden we're talking about. It may be that 4 to do all of them may just be prohibitively --5 now, I won't say expensive, but there's too much 6 time involved, too much labor involved in it. 7 But we'll see what we can work out with them. 8 We're at the very early stages of figuring out 9 what we can do in that. 10 So, anyway, that was our part of the 11

11 meeting. You know, the NIOSH part of the meeting 12 meeting. You know, the NIOSH part of the meeting 13 was really short. It was a 9:30 to 2 o'clock 14 discussion and we took about a half-hour of that. 15 So most of it was Department of Labor.

16 Also, Josh prepares my slides, and he say something about 17 wanted me to our plain language efforts that we are embarking on. 18 There 19 is Plain Language Act and there а are requirements that documents be written, you know, 20 21 documents written in government be plain 22 language.

23

Now, for health physicists, that's

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like a foreign language. So we've been trying
 to deal with that to a certain extent. We are
 chasing down some training. And plain language
 doesn't mean dumbing down the language, it means
 writing it for the intended audience.

6 So, for instance, a White Paper is 7 things that we write for Work Groups and Subcommittees. I think my presentation wants me 8 to hurry up. 9

10 (Laughter.)

MEMBER ANDERSON: It's on a timer, youknow.

I think it is. 13 MR. HINNEFELD: Those 14 documents are written for an intended audience. 15 They're written for the Work Group or the 16 Subcommittee or the SC&A. And so those will be written for that audience. 17 And so they won't all be written for a public, they'll be written for 18 19 the intended audience. But you can still do some things to structure the writing better and make 20 21 the writing, you know, easier to follow and 22 structuring the documents better.

23

So we're going to embark on some

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1 training for our own staff and for some members of our contractors' staff to see if we can't 2 structure these things a little better. 3 Because, if you look back, you can probably all think of 4 examples of writing that you've read in this 5 program that was kind of convoluted. 6 And, vou 7 know, it could have been written in a more clear fashion. So we're going to be working on that 8 going forward as well. 9

10 And despite my computer's desires, I'm 11 going to go through the rest of my presentation. 12 I'm almost there. I think I've covered the other 13 topics that I was going to cover.

14 I did get a little bit of budget news 15 riqht before Τ out here about came our 16 sequestration amount for fiscal year 2016. The sequestration percentage is slightly less than 17 the sequestration percentage we have this year, 18 19 which means we will effectively have a littler more money next year than this year. 20

21 adapted So we've to our current 22 spending levels and I think things will be okay 23 time being, absent for the some, you know,

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statutory change. But the way things look right
 now, the 2016 budget will be very similar to this
 year's.

Okav. Now, to get onto our internal 4 5 blind dose reconstruction review process, we adopted some time ago, working with the Dose 6 7 Reconstruction Subcommittee, to say, well look, you know, we've had these dose reconstruction 8 reviews that SC&A has. And, you know, more often 9 than I would like, they find things that are 10 mistakes in dose reconstructions. 11

12 And so we said, well, why are we not 13 finding those ourselves and can we get some 14 information about the kinds of things that are 15 happening?

16 And an idea occurred to us, well, we 17 try doing, essentially, blind reviews can ourselves. You know, have the DCAS staff do dose 18 19 reconstructions of a case, without seeing the cases that come over from ORAU, and see how we're 20 21 And then maybe you can figure out, you doing. 22 know, do we need more clarity in the instructions 23 for dose reconstruction? You know, some things

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like that to try to diagnose reasons why dose
 reconstructions may be getting done with mistakes
 in them.

And so we started that process a while 4 5 ago and we found out pretty quickly that it's It takes a lot of work to do this. 6 really hard. 7 So, the way the process works is that each week a case is randomly selected by our 8 into the assignment 9 computer system and put queue, you know, the list of cases to be assigned. 10 And then one of our team leaders has to assign 11 12 from that list, assign а case to а dose reconstructor to do the blind review. 13

14 The cases that are randomly assigned have not been delivered by ORAU. These are cases 15 16 that came in that we don't have а dose 17 reconstruction on yet.

And so the idea is that our health physicists will go and do a dose reconstruction, not write the whole report, but do the math, do the calculations and come up with dose numbers for internal, external and ambient and medical, you know, the various categories.

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1 And then when the ORAU dose 2 reconstruction, the official dose is delivered, then we 3 reconstruction, do а comparison. The system notifies us that, okay, 4 5 you've got both of them now, and then you get a different health physicist, you know, from DCAS 6 7 side to go compare the two dose reconstructions and see how do they compare. 8

So that's the process and it's run, 9 like everything we do, on one of our applications 10 on our staff tools page. I happened to look and 11 12 it's not an application that the Board Members We could, probably, you know -- I don't 13 can see. 14 think there was any particular reason for that -- but we could make it available to Board Members 15 16 to see this application.

I'll show you here an example of the 17 I think it's called a OA 18 comparison sheet. 19 sheet. This is the form that the -- okay, I'm not quite there yet. Yeah, I think this is just 20 21 a description of the process, which I think I 22 covered. This is an example of what we call the quality assurance form, which is the comparison 23

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between the ORAU dose reconstruction and the DCAS
 dose reconstruction.

Again, like I said, this form is completed by a second DCAS health physicist and they just look side by side and they try to explain differences.

7 I have two slides showing examples 8 that to fit this whole, it would have taken four 9 slides to hit the entire form, put the entire 10 form on the presentation. So I just wanted to 11 show you examples.

12 And you can see it has the various 13 categories, you know, questions about did we save 14 all the data we asked for? And then photon doses, it goes through neutron doses and then 15 it'll go to the internal doses, and so all the 16 categories are on it. If you had the full QA 17 sheet, you'd have all that. 18

And you can see that when there are differences there -- well, at this point, there's just a comparison of how they did things. This is filled out by the ORAU -- or, no, by us, by the second DCAS health physicist, fills out this

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form looking at the two dose reconstruction.

2 And this is the bottom of the form, the second piece of the form. And you can see 3 4 there, the comparison down at the bottom, the Probability of Causation value is compared. 5 And idea here is if 6 the to see the two dose 7 reconstructions had the same answers, were they both less than 50 or above 50? 8

And if they're different, 9 then you have to take a serious look of what in the heck 10 11 happened. Or if the percentages widelv are 12 disparate, even if they're on the same side, 13 you'd kind of like to know what happened 14 differently.

You can get some widely disparate 15 16 answers because, in some cases one, either ORAU or we will do an intentional overestimate, and 17 the other side, you know, would not do as much of 18 19 an overestimate. And so you'll have, you know, widely disparate values. 20 And those are easy to 21 explain because dose reconstructors have a fair 22 of leeway in choosing overestimating amount So, anyway, that's an example of how 23 techniques.

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1 the case is documented.

Now, the actual performance of the 2 program -- I think I skipped a slide there. 3 4 Maybe not. There's a slide missing. 5 What compared against the we statistics of what we've done, there have been 6 7 some 90 of these cases randomly selected by the computer, but only about 40 of those, or in the 8 Only about half have actually been assigned 9 40s. to a dose reconstructor, and then there's this 10 smaller subset of that, that we have both the 11 12 dose reconstructions and a comparison.

13 So, you know, а blind dose 14 reconstruction, I think SC&A budgets 40 hours for a blind dose reconstruction. It can be a pretty 15 16 big undertaking, depending upon the case. And so we're taking health physicists' time 17 from reviewing dose reconstructions or doing 18 site 19 research to go do this. So it's a pretty big time commitment to get into this. 20

There's another complication in that the dose reconstruction tools that are used to automate many of the dose calculations have

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what's called executable code in them, and they were written on ORAU's system. And so we can't get our computer folks to agree for us to load those tools onto our computer system.

5 So I'm going to say some things now 6 that I don't really understand. The computer 7 people told me, so I can't answer a lot of 8 questions about specifically what this means.

But our two computer systems, ours and 9 10 ORAU's, communicate a lot. And they pass information back and forth regularly and update 11 12 each other regularly. And to do that, each side 13 has а firewall, and that communication goes through those firewalls. 14

In between those firewalls, there is 15 16 some server capacity, some memory capacity. And as a kind of workaround, these tools are 17 so, placed in that kind of netherworld between the 18 19 two firewalls. So we can access them through the firewall, but in a limited capacity. 20 So our ability to use the tools is sort of limited. 21

22 So, that makes this process difficult 23 because, you know, it doesn't make much sense to

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try to build this whole calculation when the tool 1 Because tools do require selections. 2 is there. You have to make the right selections in the tool. 3 So that's complicated the process a little bit. 4 5 So, as a result, that's why, you know, with this 6 we've not really kept up whole 7 selection. Many more cases have been selected than have been done. 8

In the circumstance where the computer 9 10 automatically selects a case and it doesn't get delivers the 11 assigned and then ORAU dose 12 reconstruction for that case, the computer sees 13 that, takes that out of the unassigned queue and picks a new one to replace it. 14

So, the queue, you know, we don't lose 15 16 them in that fashion, or we lose that specific case, but the cases are still counted. 17 So it runs a bit behind the process, and what we've 18 19 typically learned is that the ORAU dose reconstruction, since they have pre-access to the 20 21 tools, they have a peer reviewer doing it.

You know, when we find a mistake or a
difference between their claim and ours, in every

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1 ORAU dose reconstruction was case the done 2 correctly. And our people aren't as good at reconstructions the ORAU dose 3 doing dose as reconstructors. That's the main thing we've 4 learned. 5

6 So, the question, you know, then gets 7 into how do you fix that? You know, and can we 8 fix it and can we invest -- so far we haven't 9 invested a lot of time into trying to fix that, 10 you know, into training our dose reconstructors 11 and things like that.

12 So, like everything else in the 13 program, it's a balancing act between can you do 14 what you want to do with the resources available? 15 So that's kind of what we've run into on this.

I will try and get back to where I am because I don't know what's going on here. I think maybe I'm shaking the podium. Maybe that's causing this to go.

Okay. I think I've covered this. In every instance where our result, in terms of which side of 50 percent was different, there's like five out of the 49. We run it, you know,

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1 the two were on a different side.

looked back 2 We and dose our reconstructor made a fairly -- probably an error 3 that you would think they wouldn't have made, or, 4 5 in some cases, maybe not such a subtle error. Sometimes it was selection on the tool, that they 6 7 chose incorrectly on the tool because they didn't realize the choices. 8

But five of the 49 were different. 9 All of the others were of the same. 10 Some of the cases where you're on the same side of 50 percent, 11 12 the difference was maybe a little more than you 13 would like. But to chase those down and to 14 really -- it takes a certain amount of effort, actually, to figure out what was done differently 15 16 on the two.

17 So that's where that is. It could 18 certainly be done. With additional resources 19 applied to it, it could be done more rigorously 20 and we could learn more from it than we have, 21 candidly.

22 And like I said, it's like everything 23 else in this program, trying to accomplish

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everything you want to accomplish with the
 resources available.

In the interest of time and getting away from my computer, I'll only go very quickly through the statistics. They're all in your handout. If anybody has any questions, I'll try to answer them.

8 Our compensability rate from dose 9 reconstruction, it's not calculated on there. 10 That's about 28 percent, or above 50 percent 11 through dose reconstruction. And these are up-12 to-date as of March 19th.

13 So, our submittal chart, which is 14 quarterly data points, since this was completed 15 on March 19th, you don't see any particular 16 change. The last one's down a little bit because 17 it doesn't include the entire quarter.

But it looks about what you'd expect. If It's been pretty flat, around 500 a quarter now for a while. That's new cases. We still have, oh, probably 150 returns a quarter, on that order.

DOE's responses, I think, are going

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quite well. We don't have any particular problem. Well, periodically a site will get behind and they'll get nagged at and get caught up. So that's there.

5 And I'll entertain any questions, 6 particularly the end where I didn't cover the 7 statistics, or anything else anybody wants to 8 ask.

9 CHAIRMAN MELIUS: Paul.

10 MEMBER ZIEMER: Thank you. Stu, I have two questions. First of all, on the charts 11 12 that you put up where you show the differences. 13 I don't think the people in the audience could 14 probably see those charts. But do you have some criteria for saying when your dose reconstruction 15 16 really is different? Like you had one that's 17 four percent and they had five percent and so you were about a percent apart and you're saying, 18 19 well, that's the same. Is there a criteria for saying you didn't get the same results? 20

21 MR. HINNEFELD: Not per se, other than 22 whether it was above 50 and below 50. Those are 23 clearly considered different results. Other

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than that, there's not a formal set of criteria
 for them.

Okay. But if they 3 MEMBER ZIEMER: got five percent and you got 40 or something, I 4 5 mean, there's some point at which, at least intuitively, you'd say that's not the same. 6 7 MR. HINNEFELD: Right. MEMBER ZIEMER: But right now there's 8 9 no numerical criteria? 10 MR. HINNEFELD: Nothing like that that would trigger special investigation. 11 Ι 12 mean, the QA, the second DCAS HP, might chase 13 that down, but there's nothing that mandates you 14 have to, you know, explain why it's so much 15 different. 16 MEMBER ZIEMER: My second question is SC&A is doing a lot of quality DRs for the Board. 17 You're calling yours blind, but I don't think 18 19 you're using it the same way that we are for the But for the regular SC&A ones, do 20 SC&A ones. 21 they have the same limitation you do on access to

22 those tools?

23

MR. HINNEFELD: I think they might.

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I don't know if John can comment. I think they
 might have that same limitation on access to
 tools.

4 MR. STIVER: Yeah, this is John 5 Stiver. And I can say that our people have had 6 trouble getting access to those tools as well. 7 It has been kind of roadblock for us.

8 MEMBER ZIEMER: Well, it just seemed 9 to me that -- and we can maybe talk about this 10 later -- but for the Board's contractor, where 11 we're doing hundreds of checks, that access to 12 the tools for our contractor would seem to me to 13 be fairly important.

MR. HINNEFELD: I'll see. Yeah, I'm starting investigating that and what can be done to make this easier. I don't know that we're going to have a lot of luck with our computer security people in getting executable files onto our system.

Now, whether it's okay for us and SC&A 20 21 into ORAU's system, to that's another qet 22 question. That's computer also a security question that I'm starting to investigate. 23

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1 CHAIRMAN MELIUS: Dave. 2 MEMBER KOTELCHUCK: Dave Kotelchuck. saying, though, 3 Tt's worth that the Dose Reconstruction Subcommittee has been looking at 4 a limited number of blind comparisons between the 5 NIOSH results and the SC&A results. 6 7 And all of those -- there were about half-dozen of them -- all of those, 8 а the 9 decisions are the same. That is to say, there 10 are no cases we've come across so far where the blind review, where there was 11 a discrepancy 12 between whether it should and should not be 13 compensated. There was agreement on that, and 14 that's important. 15 And while it's important for you to 16 figure out how to do that internally within NIOSH, and that's great, I think that the results 17 so far, for final results, have been good and 18 19 there has been agreement on the blind review 20 cases. 21 CHAIRMAN MELIUS: Dave, we may need 22 to look at that question again, because I recall 23 at least one. Ιt was а very significant

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difference. But that's a --

2 MEMBER KOTELCHUCK: We'll take a look 3 at that.

4 CHAIRMAN MELIUS: And these are 5 different types of blind reviews, let's be clear. Any Board Members on the line have 6 7 questions? Hearing none, thank you very much, And we'll be coming back and talking more Stu. 8 9 about dose reconstruction reviews at other times during this meeting. 10

11 Our next presentation is from Dr. 12 Patricia Worthington from the Department of 13 Energy.

14 (Pause.)

DR. WORTHINGTON: All right. Thankyou.

17 CHAIRMAN MELIUS: And welcome, Pat.18 It's always great to have you here.

19 DR. WORTHINGTON: Good morning. Greq Lewis will not join us today. 20 He's at the 21 Federal Executive Institute, becoming an 22 executive. And I am joined today by Isaf Al-23 Nabulsi and by Gail Splett. Gail's actually --

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you know Isaf -- Gail is from Hanford. She is
 our primary point of contact here at this site
 for EEOICPA-related activities.

I want to talk just briefly this 4 5 morning about DOE's core mandates. Our responsibility is to ensure that we provide all 6 7 the information to NIOSH and Department of Labor to support the claims for people that worked at 8 Department of Energy. 9

DOE's responsibilities. 10 We have a number of things that we have responsibility for, 11 12 and one in terms of responding to the records 13 requests of individuals for providing information 14 to DOL and to NIOSH. A little over a year ago, instituted а secure electronic records 15 we 16 transfer system. It proved to be a great way to avoid PII breaches and to get information quickly 17 to those organizations. We think that's working 18 19 very well.

20 With regard to providing information 21 on large-scale research activities, we're working 22 with the Board and NIOSH and DOL in doing that 23 across a large number of projects. We'll talk

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1 about that in a few minutes. And we conduct research in coordination with DOL and NIOSH. 2 In cases 3 there's а need to qather some some additional information to support the activities. 4 5 EEOICPA site contacts, I mentioned that Gail is one of the site contacts. 6 And while 7 we have the responsibility in our office, the Office of Health and Safety, to provide the 8 information needed, the information's 9 as primarily in the field. 10

And so with the information being in the field, we need to have POCs all across DOE to provide that information to us. And they do a wide variety of things in terms of making sure that we have the right SMEs that are available to help look for the documents.

And in some cases the information is 17 more about getting a tour, getting a feel for the 18 19 activities, what kinds of searches might be And so we rely, again, on these points 20 needed. 21 of provide contact help us to that to 22 information.

23 Individual records. Again, it's

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always about the individuals, about the workers,
 and what can we provide. And I'll provide some
 additional insights.

You've seen these numbers before. 4 high 5 They remained fairly in terms of verifications, dose records and DAR information. 6 7 And so that's something that we're working constantly with the site and through our POCs to 8 be able to provide that information as needed. 9

Providing the information -- and we've 10 talked about this, I think, at almost 11 every 12 meeting -- can be a challenging activity for us 13 and, you know, for the sites, because in terms of 14 even at a single site, there are many programs, in some cases many contractors, many systems. 15 We 16 have the old DOE processes and new ones. Can 17 they work together? Are they communicating with each other in order to be able to provide the 18 19 information?

20 And I think that over the years as we 21 worked on this, and working with people like 22 Gail, we found innovative ways to be able to reach 23 out and find this information.

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I mention here on this slide that in some cases, at one site, there were 40 different places that you had to look. And, again, these things may not always be communicating with each other.

6 The large scale projects that we're 7 working on, again, from our perspective, from 8 DOE's perspective, if we receive information 9 requests from DOL and NIOSH, we support all those 10 requests.

We've certainly learned things over 11 12 the years, better ways of doing things, providing 13 some insights to DOL or to NIOSH about the types 14 things that they're looking for, but of we certainly honor all the requests that we receive. 15 16 And many of these projects have been ongoing for some time. 17

And the things that I mentioned on the previous slide about sort of the complexity of looking for these records and trying to find them kind of -- we're always looking for quality information back to you, and completeness.

We want to be timely, but that's

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defined in different ways. The main thing we want to do is to be able to turn it around, but to be sure that we've looked in all the places and that we've identified all of the information that might be needed.

I have a list here of the large scale research projects that we're working on, and you can see that there are a number of them and they certainly represent various kinds of activities and processes and missions at DOE.

11 I'm going to talk just briefly about 12 support to Hanford and to PNNL on the SEC and the 13 kinds of things that, you know, that we've been 14 doing.

So what you'll actually see here on this slide, and Gail has provided quite a lot of information to tell you how aggressive they've been at this site, that we've had over 140 data captures. And so that's during the time that they started providing information for the SEC.

21 Eighty-four separate data capture 22 trips. And, again, those trips are varied in 23 terms of the number of people that would come to

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1 the site and request information, the type of documents and places that they would look. 2 A lot of boxes that we looked in that represent a lot 3 of different type of information. And just key 4 5 word searches. And that's very important because if you're not asking the systems for the right 6 7 kinds of things, then you may not get anything back what may not be meaningful. 8

And that's, again, a reach back to the 9 10 idea that our POCs are people that help us find the right people that are knowledgeable about 11 12 these records. And in some cases where it's 13 important and necessary, we bring people back 14 that are retired to kind of help with these searches that know about the information or where 15 16 you can receive it.

17 Indexing, that's one thing that we work on here at this site and at other sites, 18 19 because if you don't index the materials then it's difficult to find 20 them and to do the 21 that's searches. So always been quite 22 aggressive.

This slide here, I've mentioned, 5,000

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1 boxes of personnel record records. It's 2 different from what you have on your computer. It's actually an error. I think we had listed 3 500, but it was 5,000 there. So we will give you 4 5 an update with the right information for that.

6 CHAIRMAN MELIUS: So there's some big 7 boxes.

8 DR. WORTHINGTON: Yes, yes, quite a 9 bit. But, again, just some idea in terms of what 10 we're doing and the kinds of things that we're 11 looking at.

12 On this slide we mentioned historical 13 phone books. And we've talked about this in 14 previous years, that to go back to records for the cities or other places or information at the 15 16 sites in terms of something that will help us verify that these individuals were working at the 17 This is another example of kind of looking 18 site. 19 for things that were more innovative.

I believe, in recent discussions with Gail, they indicated, in moving from one area to another area in their building, they located a number of phone books they didn't have in place

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before, and other types of information.

So, from time to time we're coming up 2 with new sets of records that we can certainly 3 draw from. It's always a challenge when we're 4 looking for records from subcontractors. 5 Document reviews. From time to time 6 7 there are documents that are generated, and we, again, we're the health and safety organization, 8 we then reach to our security side of the house 9 to make sure that they review the documents and 10 that they turn them around sort of in a timely 11 12 manner in terms of whether they are releasable. 13 So, again, we're juqqlinq all the 14 requirements with a strong need and a compassion for getting the information back the 15 to organizations that need it. 16 Facility research. I think we had 17 some requests even early this morning about the 18 right location for our website, for the link for 19 It's listed here, but we continue to work 20 that. 21 on those things and update them as needed. And I want to point out on this one, 22 23 if you're looking at the actual address for the

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web page, you'll see EHSS in there. This is the
 new link after our organization was restructured
 into two parts, into AU organization, into the EA
 organization.

5 So if you're looking at the facility 6 lists, or any other kinds of links that are 7 related to our office, the key thing is if it 8 doesn't say "EHSS," you may be looking at an old 9 one and so you may want to update that.

I believe that Stu mentioned outreach. 10 I'll just sort of reemphasize that. 11 The idea of 12 DOL and NIOSH and DOE coming together under one 13 umbrella to provide information, offer 14 clarifications to workers or to others that might need it, related to the things that we do under 15 16 DOE, NIOSH or Department of Labor.

We've talked about receiving records 17 and various kinds of processes have been updated, 18 19 but in some cases we need more outreach so that people are aware of information that might be 20 21 And we've been joining, as Stu said, available. 22 with these organizations in providing some outreach, some feedback, to individuals. 23

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We have developed, and I think made 1 available to the Board, the link associated with 2 our video where the three organizations described 3 their processes and the things that they do. 4 5 We're in the process of updating that, but this one is still very informative about the roles and 6 7 responsibilities of the three organizations. So, continue to use it until such time that we do 8 update it. 9

I want to talk about the Former Worker 10 Screening Program just for a moment, 11 Medical 12 because the EEOICPA program certainly looks at both current and former workers. 13 But the Former 14 Worker Program itself is that once workers leave make available to them а medical 15 DOE, we 16 screening that will target adverse health effects that could've been associated with some of the 17 hazardous operations that they worked under when 18 19 they were here at DOE.

The Former Worker Program is available to all workers. You know, once they worked at a DOE site and once they leave, they can -- and I'll provide some contact information on the next

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slide -- they can come back to those facilities,
 come back, give a phone call, and we'll be happy
 to organize or arrange a medical screening for
 them.

I've listed two of the organizations 5 associated with this. These are both called 6 7 National Screening Programs, where workers. regardless of where you are in the country, that 8 you can call one of those numbers and a screening 9 10 can be made available to you near where you're living, if you've moved away from DOE. 11

12 The first one is focused on production 13 workers and the second one on construction 14 And the idea here is that, again, the workers. screening would be targeted towards those things 15 16 that you had been working with when you were at DOE. 17

This was a fairly, you know, fast overview of DOE and the kinds of things that we do, and we're available for further questions on any of the things that we talked about.

22 One of the key points, and I want to 23 reiterate that, is that with regard to our

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1 overall responsibility for delivering the providing 2 information, records and various information, we continue to have innovative ways 3 and using innovative approaches to get to this 4 information. 5

I'll use Hanford as an example. 6 Here 7 at Hanford there are multiple contractors working on some very specific projects for the Department 8 of Energy. And so a very important network that 9 10 was developed here, for some key things for information, 11 looking for to bring the was 12 contractors together under a common umbrella to 13 help locate records.

14 And so it was very bold in that, in some cases, work schedules were revised such that 15 16 these individuals may work four days a week and then they all come together maybe on the weekend. 17 concentrated 18 And then have а very effort, 19 aggressive effort in terms of delivering the products and things that might be needed. 20

21 And so, again, our overall goal is to 22 provide information, you know, as needed and 23 where it's difficult to look for better ways of

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getting the data back to the right people and the
 right hands. So, we'll end here and take any
 questions that you might have.

4 CHAIRMAN MELIUS: Thank you. Thank 5 you, Pat. You know, actually, I appreciate your 6 efforts out here at this site, and actually Gail 7 was able to help us on a conference call we had 8 talking about the work on the Hanford Site Monday 9 of this week.

10 DR. WORTHINGTON: Very good.

11 CHAIRMAN MELIUS: So we appreciate 12 that. I have two questions about two of the 13 sites where there appear to be some difficulties 14 getting records; one is Savannah River and the 15 other is the Los Alamos. And can you provide an 16 update or have information on that?

I know the problem with Savannah River is relatively recent, but it's causing sort of a major hold up. And then LANL, I think, has been more of a longer term problem.

DR. WORTHINGTON: I will. And Isaf can jump in if she has any specifics on that. J'll talk first about the Savannah River. With

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regard to Savannah River, it has been a challenge
 for us and it's certainly something that we were
 aware of and that we were constantly working with
 the sites.

5 They had some changes in contracts and 6 approaches and funding, you know, issues there at 7 the site. And the problem with that site, and 8 any site, if at any time the contractors cease 9 and then we bring them back and try to start them 10 again, it's not always a quick process.

But we are aware of it and we are 11 12 working with it. And, when necessary, we raise 13 it all the way with the site managers. And 14 sometimes, again, the startup again, get them moving, is slower than we would like. 15 But we 16 will certainly continue to work on that until such time that we can resolve it. 17

I don't know if we have any specifics 18 19 on Los Alamos for the moment, but it's a challenge sometimes, you know, to inspire them. 20 But Greq 21 has developed a very, I think, aggressive program 22 where he's actually qoinq out and meeting individually with the sites, looking at ways that 23

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they can do it better and faster and more
 efficient.

And it takes a while to turn it. 3 4 around. I'm not going to mention, you know, site names, but the ones that we've had these issues 5 and that we work with them, we've been able to 6 turn them around, I think that our statistics 7 will show that we can do that. 8 But we always welcome early, you know, 9 information, early signs, if that's the case, and 10 so we can work on it. So hopefully when we come 11 12 back for the next update we will have turned that 13 corner on that one as well. 14 CHAIRMAN MELIUS: We call it aggressive inspiration. 15 16 DR. WORTHINGTON: Yes. Yes. 17 CHAIRMAN MELIUS: Yes, Paul? Dr. Worthington, I 18 MEMBER ZIEMER: 19 just had sort of a general guestion on the 20 reorganization of EHSS. And you can answer in 21 general terms. Ιt appears that the 22 organizational commitment to this program has 23 been maintained pretty well. Can you just talk

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a little bit about your staffing and budgetary
 levels? Have they been maintained under this
 reorganization?

DR. WORTHINGTON: Actually, they have 4 5 been maintained. And with regard to Greg's lot of the information 6 office, where а is 7 generated and a lot of the heavy lifting is done, Greg just recently hired an additional person in 8 his organization with lots of experience, from 9 She's worked some at CDC, and I think she 10 Emory. brings some new energy, you know, to that office. 11 12

12 And so with regard to the commitment, 13 the commitment is extremely high. We still are 14 excited and view our primary job to be advocates 15 for the workers and to do all those things that 16 we have to do.

So we don't think that we've lost a 17 step, but I think that we've gained a few. 18 Like 19 said, Greq has been quite aggressive with Т following the money and looking for ways to 20 21 improve processes. And where needed, we actually fund initiatives at the site to make it easier 22 23 and faster and better for them to retrieve

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1 information, put some new systems in place, so I think that we're fine. 2 3 CHAIRMAN MELIUS: Board Members on the phone, do you have any questions? 4 5 MEMBER LEMEN: None from Lemen. 6 CHAIRMAN MELIUS: Okav. 7 MEMBER SCHOFIELD: None from Schofield. 8 CHAIRMAN MELIUS: 9 Okay. Thank you. 10 You don't all need to answer. Just if you had questions let us know. I just want to make sure 11 Okay. 12 I don't forget you out there. Thank you 13 very much, Dr. Worthington. We appreciate that. 14 DR. WORTHINGTON: Okay. 15 CHAIRMAN MELIUS: Our next 16 presentation is from Frank Crawford, formerly at 17 NIOSH, now with the Department of Labor. Welcome And good luck with the computer. 18 aqain. 19 MR. CRAWFORD: Good morning. My name is Frank Crawford. I'm with DOL, as you just 20 21 heard. And so far this slide hasn't moved. This 22 is positive. So, let's see if I can move it. 23 I'm going to start with the usual **NEAL R. GROSS**

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statistics, the updates, and then we'll talk briefly about the SEC discussions for today, some statistics for that, how many cases have been filed and so forth. And then end with the recent outreach activity.

6 This we've seen over and over again, 7 and these numbers only go up. We're now over \$11 billion in total compensation. From looking at 8 fiqures here, I this 9 later assume includes 10 medical treatment expense beyond just the cash awards. 11

This also is familiar, and the numbers 12 13 are just a little higher than they were. The 14 only thing, I think, that needs explaining here, perhaps, is there's a lot more cases returned 15 16 from NIOSH without dose reconstructions and you might initially consider, but I believe that 17 almost all of those are going to be cases that 18 19 are pulled for SEC evaluations, and then they 20 never come back in many cases because they're 21 approved at that level.

Now, here's one view of how many cases
are being approved or denied. These are Part B

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1 cases only, with dose reconstructions and final We see that we have about a one-third 2 decisions. approval, two-thirds denial ratio at that level. 3 In a minute, we'll get to another view 4 5 of that same data. But first, the other category, I was able to confirm, it's a very large 6 7 lump at the bottom of the screen, 31 percent. But that includes beryllium, silicosis cases. 8 Ιt also includes -- what was the last thing 9 _ _ 10 chronic beryllium disease, beryllium sensitivity, that's it. So the numbers don't 11 12 seem to add up, but that's why there's such a large number under other. 13

14 In some cases, while they're filed, 15 turn out to be, for various reasons, disqualified 16 from going further in the process also. Those 17 will be lumped in there as well.

take another look 18 Now we at. the 19 approval versus denial data. Now, this is Part B, again, radiation cases with final decisions, 20 21 but many of these will not have DRs. In other 22 words, these are SEC cases, in many cases.

23 So we see, when we include the SEC

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cases, we're now approving over 50 percent of all
 cases filed. In terms of raw numbers, we see
 here 45,648 Part B approvals.

On the former slide, two slides back,
there were just over 10,000 Part B approvals with
DRs. So the impact of the SEC is quite large in
terms of the approvals and raw numbers.

3 Just another view of the data, but we 9 see that the accepted DR cases, there are little 10 discrepancies in the data. I don't know what 11 causes it, but some of them are finals and some 12 are, you know, recommended decisions and so 13 forth.

14 So we still are in the 9 to 10,000 15 area with accepted cases with DR only. Now, we 16 go down to SEC cases and we're in the 22,000 range 17 accepted based on an SEC.

And there are very few cases in terms 18 19 of raw numbers, again, that are both accepted on SEC basis and later have a DR issue that 20 an 21 accepts perhaps an ancillary case for -an 22 ancillary cancer Ι should say, for medical 23 treatment and so forth.

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1 This, again, our top four sites don't These are just the sites generating 2 change much. the most cases, Hanford, Savannah, Y-12 and Los 3 Alamos, the usual suspects. 4 Here, this is a little bit busy, but 5 we see the comparison between DOE cases and AWE 6 7 cases. And we see that the AWE spiked for a while and now seem to be fading away. Probably 8 because most of these sites are no longer active, 9 of course, many of them were active in the 40s 10 and 50s and not afterwards, so we would expect 11 those claims to slowly diminish. 12 13 Now, for the petition site discussions 14 for today, these are not in order of discussion, but I don't think we had the agenda when we came 15 16 together on this. relative 17 There's huqe disparities between the number of cases for each site. 18 And

19 then if you look, if you winkle out the 20 percentages of approved cases versus denied 21 cases, that varies wildly between sites also.

In some cases, of course, a lot of heavy duty, messy production work was going on.

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1 Hanford, Savannah River would be two such sites, 2 place like Kansas City, it whereas, a was relatively restricted kinds of 3 work with radioactive material. And we see that their 4 5 approval rate is much lower than Hanford or Savannah River as you would expect. 6

7 In terms of raw case counts, we, just on this page alone, we're looking at Dow Chemical 8 with 91 cases filed versus Hanford with over 9 16,000 cases filed. So the size of the sites 10 here is remarkably different. All of this, of 11 12 course, is on the website for review. We don't have to memorize these numbers. 13

And then the remainder of the sites 14 that will be discussed during this two-day 15 16 meeting. We see INL, for instance, a very large site with over 5,000 cases. 17 And then DuPont Deepwater and Grand Junction operations center, 18 19 relatively small sites, 250 cases, approximately. Moving on to outreach events, which 20 21 we're all familiar with. Stu mentioned the WIPP 22 discussion in New Mexico. I really want to find 23 that.

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1 These are coming outreach events where 2 we have Newport News, Virginia, April 28th, St. 3 Louis, Missouri, June 2015, and Amarillo, Texas 4 July 22nd.

5 Now, I seem to have lost a slide in 6 there somewhere too, which was the most recent 7 meeting. So let me see if I can recover that 8 quickly or at all. Here we go. There we are.

9 These are more recent meetings already Meetings where since last 10 completed however. October meetings 11 have had in Paducah, we 12 Shiprock, New Mexico, Carlsbad, New Mexico, 13 Casper, Wyoming and Riverton, Wyoming.

14 So, these are relatively small 15 meetings with the exception of the Shiprock 16 meeting and the town hall meeting in Paducah 17 which were over one or 200 each.

18 With that I'll ask if the Board19 Members have any questions.

20 CHAIRMAN MELIUS: Okay. Thank you,
21 Frank. Board Members with questions?

22 MEMBER SCHOFIELD: Yes, this is Phil 23 Schofield. I've got a question for you. I

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noticed that you did Shiprock, you've done
 Carlsbad, but are you planning on doing any
 meetings in the Gallup, Grants area?

4 MR. CRAWFORD: Unfortunately, I don't 5 have the answer to that. I will attempt to find 6 out and get back to you on that. I can send that 7 to the whole Board if most would be interested. 8 Great.

9 MEMBER SCHOFIELD: Okay. I don't This kind of sounds bad, but a lot of 10 know. those people, particularly a lot of them who live 11 12 out on the Navajo Ute reservation, they probably 13 wouldn't travel to Shiprock or they wouldn't even 14 know it.

A lot of them also have limited means of getting there. That's the reason why I was wondering Gallup or Grants, kind of splits the difference in distance for a lot of those people. And this is the only reason I was asking.

20 MR. CRAWFORD: Right. And I'm sure 21 that someone on the Joint Outreach Task Group can 22 address your concerns there. So I will turn it 23 over to them and Stu will add to this.

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MR. HINNEFELD: 1 Well, I'll just offer 2 what Ι Normally, when Labor does can. an outreach at a Part E, these are essentially RECA 3 We generally don't go to those, but they 4 sites. 5 have had them in Grant, I'm pretty sure. But I'm not sure about Gallup. I don't know if there's 6 7 any planned or how recent it was. But I'm pretty sure they've been to Grant and I don't know if 8 they've been to Gallup or not. 9 And again --10 MEMBER SCHOFIELD: Okay. MR. HINNEFELD: Yes. 11 Thanks, Stu. 12 MR. CRAWFORD: 13 CHAIRMAN MELIUS: Start with Henry, go down the line here. 14 MEMBER ANDERSON: Yes, I was 15 just 16 interested in the acceptance and denials. You have the overall numbers there and do you have 17 that broken out by cancer type because it'd be 18 19 interesting and I think the claimants would, you know. Is a predominance in one type of cancer 20 21 versus others as far as which are accepted? Ι 22 would expect that to be the case. 23 MR. CRAWFORD: I haven't seen that

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data coming from DOL. Now, when I was at DCAS,
 they were able to produce it from their database
 fairly straightforwardly, I think.

4 MR. HINNEFELD: Yes, we have a report 5 on our website that we update periodically. I don't know when it was last updated, but it wasn't 6 7 terribly long ago, that lists the percent compensable. It lists the cancers in the IREP 8 9 model and the percent are compensable by dose 10 reconstruction.

11 So this is only dose reconstruction, 12 SEC wouldn't be included, and it's for only 13 single cancers because it gets too complicated 14 otherwise.

15 MEMBER ANDERSON: Thank you.

16 CHAIRMAN MELIUS: Wanda, then Paul.

Yes, I'm just curious 17 MEMBER MUNN: about the facilities in Wyoming. Both of those 18 19 sites are unknown to me personally. What's in Wyoming that would cause traveling out there? 20 21 MR. CRAWFORD: I wish I could tell 22 They are actually unknown to me, too. you.

They're, you know, the nearest thing I know about

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23

1 is INL, but perhaps.

2	MR. HINNEFELD: They're RECA.
3	MR. CRAWFORD: Oh, they're all RECA,
4	uranium mining cases. That's it, of course.
5	MEMBER ZIEMER: I was wondering if the
6	statistics include cases that go back in
7	connection with a PER, Program Evaluation Report,
8	where, and these are closed cases, but they get
9	reopened because of a PER, but it wasn't clear to
10	me either in NIOSH or your statistics, whether
11	those get recounted or how they show up.
12	MR. CRAWFORD: Stu, why don't you
13	handle that. From my own knowledge and what I've
14	seen of that, I don't have any statistics with
15	these very few cases which are called up by PERs,
16	end up with a changed compensation decision, in
17	general. There may be an exception or two.
18	MR. HINNEFELD: Well, Paul, I'll
19	check specifically, but I believe that our
20	statistics would include, the because when one
21	changes, when a case changes to PER there' is a
22	new dose reconstruction report sent back out.
23	And so our statistics should be gathering the

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1 most recent dose reconstruction report. 2 MEMBER ZIEMER: Yes. So it counts as a new dose reconstruction rather than --3 MR. HINNEFELD: Well, it would count, 4 5 I believe, you know, we count. And I believe what we do is we count claim or case numbers. 6 7 So if a case comes back for a PER because it changed, we wouldn't count it as an 8 9 additional total dose reconstruction, we'd just 10 move it from one category to another. 11 I qot you. MEMBER ZIEMER: I just 12 wasn't --13 CHAIRMAN MELIUS: They --MEMBER ZIEMER: -- sure. 14 CHAIRMAN MELIUS: -- must recalculate 15 16 the whole -- yes. Jim Lockey, I'm sorry. 17 MEMBER LOCKEY: Could you go back to the Kansas City Plant, Hanford, Dow Chemical 18 19 slide? This slide? 20 MR. CRAWFORD: 21 MEMBER LOCKEY: Correct. So I'm just 22 curious, when we look at Part B approval for Hanford is 4,591 and then Part E was 4,131. 23 Is

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1 there any statistics on what kind of duplication 2 takes place there? Is it, other words, is the cancer that was approved for Part B, is that also 3 part of the Part E approval? Do you know that? 4 5 MR. CRAWFORD: Generally speaking, 6 yes. Ιf а cancer gets Part В, thev're а 7 automatically considered as accepted in Part E. It doesn't work the other way, of course, for 8 chemical cases, but for the radiation aspect of 9 10 Part E, yes. MEMBER LOCKEY: So that would mean in 11 12 the no circumstances there were about 400 cases 13 that were approved for other type of toxic 14 Am I reading that right, Jim? exposures. 15 CHAIRMAN MELIUS: Except for the 16 qualification for Part E is different in terms of the claimant for survivors and so forth. 17 So not 18 every --19 MR. CRAWFORD: Right. MELIUS: 20 CHAIRMAN _ _ Part В case 21 qualifies as a claimant doesn't qualify as a Part 22 E claimant. So they have to get over that hurdle

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23 to get --

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1	MR. HINNEFELD: Survivor.
2	CHAIRMAN MELIUS: Yes, survivor. So
3	it would be a different number and it'd have to
4	calculated somehow. I don't recall seeing
5	statistics on that, but it certainly is a
6	significant limitation. A significant number of
7	Part B people who qualify don't qualify for a
8	Part E.
9	MR. CRAWFORD: There will be some
10	cases probably where many people simple don't
11	file under Part E even if they're advised to.
12	CHAIRMAN MELIUS: Any Board Members
13	on the phone have additional questions? Hearing
14	silence and no beeps, I'll assume that's fine.
15	Thank you very much, Frank.
16	MR. CRAWFORD: Thank you.
17	CHAIRMAN MELIUS: And we are running
18	a little bit behind, but it's not bad. And we
19	will take a break and we will reconvene at 10:45.
20	(Whereupon, the above-entitled matter
21	went off the record at 10:26 a.m. and resumed at
22	10:46 a.m.)
23	CHAIRMAN MELIUS: We will get
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1 started. Ted, do you need to repeat any of the 2 instructions?

3 MR. KATZ: No, I don't think so, other 4 than remind folks on the phone to mute your phones 5 and if you don't have a mute button, press *6 to 6 mute your phone. Thanks.

7 CHAIRMAN MELIUS: So our next item of 8 business is talking about the coworker dose 9 modeling. I think you know we've talked about 10 this at the last few Board meetings.

And the SEC evaluation Work Group has been working very closely with NIOSH, with Jim Neton and with SC&A on developing a guidance document for the review or evaluation of coworker modeling.

We think we're pretty close to a final version of that. If you remember, we started out sort of focusing on statistical issues. We're sort of backing up from that, but and have some more general guidelines to deal with it. And I think we're close.

22 So Jim Neton's, sort of, going to 23 review and go through that. And then I'll have

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a few comments later about, sort of, what we think
 are the next step.

For the Board Members that are not involved in the Work Group, if you can, sort of, be paying attention, so think about this. I will say the plan is we're not intending at this meeting to sort of approve these guidelines. That will wait until the next meeting. But they are, I think, very close to completion.

We have a couple more things we need 10 to do, but one of which is to make sure we have 11 12 input from all of the Board and all of the Board 13 has an opportunity to provide input because these 14 are going to be important in terms of dose reconstruction even in some of our past methods 15 16 for doing dose reconstruction, so. So with that, I'll turn it over with Jim and go ahead. 17

DR. NETON: All right. 18 Thank vou, 19 Dr. Melius. This is something we've been working pretty hard on to try to get some resolution as 20 21 to how we're going to proceed with the coworker 22 modeling process. But I'd like to take a step back at the beginning and just talk a little bit 23

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1 about how we got to where we are.

This all started way back with TIB-52 2 was issued in 2006, which was a TIB that talked 3 about how we would deal with special cases for 4 construction trades workers and how maybe some of 5 those situations like with external dose, we may 6 need to make some special considerations for 7 their doses as separate from the general coworker 8 model. 9 That was issued way back in 2006, like 10 I mentioned. And then, in 2011, Report-53 was 11 issued which was a much more detailed statistical 12 13 analysis of how we would evaluate potential stratification coworker models. 14 Remember, I gave those polka dot plot 15 16 graphs with the Monte Carlo permutation test, I think, that we won the award for nicest graphics 17 at that meeting? 18 Still is Number 1. 19 CHAIRMAN MELIUS: Still is Number 1. 20 DR. NETON: 21 CHAIRMAN MELIUS: No one's even come 22 close to challenging that. 23 Is that right? I liked DR. NETON:

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those. But that was issued back in 2011 and 2013
 SC&A reviewed that report and they had eight
 findings.

4 They were broad-based findings. 5 About four of them were related to statistical 6 issues. Is the statistics robust enough to be 7 able to separate these different categories?

And four of them, the other half were 8 9 really related more to issues on characterization You know, Report-53 started with 10 of the data. the assumption that you were comparing apples to 11 12 apples and didn't do anything about populations 13 characterizing that underlying 14 themselves.

15 So we took a step back, and I think I 16 volunteered for this actually, to do some sort of 17 guidelines on how we actually look at the data in 18 some detail qualitatively before we proceed with 19 some stratification efforts.

20 And the end result is this draft 21 criteria for the evaluation coworker datasets. 22 We've been working, as Dr. Melius said, with the 23 SEC Issues Work Group. We've had five meetings

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now over the last year-and-a-half, two in person,
 three by telephone.

And this last go around is we're calling Rev 4.1 is very much what we discussed at our March 10th meeting where, I believe, we had some very good agreement among the Members of that Work Group that this document seemed to be close, or if not, close to final.

9 So what I'd like to do is just to go 10 over, refresh people, we don't meet very often, 11 of how this, you know, where we are with this 12 document, what's in it and maybe after that we 13 can talk about what the path forward may be.

This is Rev 4.1, as I mentioned. 14 And this is on Live Meeting, so it should be out there 15 16 for the folks. Rather than put together a PowerPoint, I thought I'd just, like I did last 17 time, sort of scroll through and talk from the 18 19 document and entertain any questions as they might arise. 20

There are five sections of this document now. I'll go over each one in a little bit of detail, not exhaustively because it's

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1 fairly short and I think everybody probably should have had a chance to read it by now. 2 But the introduction section really 3 just sets the stage for, you know, the regulatory 4 basis of why coworker models are okay. 5 You can see the italics in the middle 6 7 of the first introductory section that talks about, "If individual monitoring data are not 8 available or adequate, dose reconstructions may 9 use monitoring data for groups of workers with 10 comparable activities and relationships." 11 12 We've been doing that for guite some 13 time now. The question really is what's 14 And that's what we tried to address comparable. qualitatively in this document. And in some 15 16 cases at the end, we talk about how you would do 17 some quantitative analyses as well. 2, which Section 18 So the is the 19 criteria for the evaluation of adequacy and completeness of coworker data is that really 20 21 tries to get at, we get data sets from all kinds 22 of different avenues. 23 They come in either the claimant's

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sets, they come in spreadsheets, they come in
 electronic databases. But the first thing to do
 is to evaluate the technical adequacy of the
 monitoring data. And that's what really Section
 2.1 addresses.

It talks about whether you have a 6 7 bioassay sample, a urine sample, whether you have an in vivo sample or, you know, a whole body 8 counting 9 measurement or an external dose What generally needs to be looked 10 measurement. at before we consider those data to be valid for 11 12 use in a coworker?

13 Are they technically capable of 14 measuring what they set out to measure? If vou measure a urine sample, is the chemical recovery 15 16 appropriately adjusted, that sort of thing. In vivo measurements, there's a lot of criteria in 17 here about chest wall thickness and calibration 18 19 phantoms, that sort of thing.

20 And film badges, likewise. My class 21 example, film badges are if you're measuring 22 neutrons, in the early days the neutrons couldn't 23 measure below a certain energy. So if you're

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exposed below a certain threshold energy that the
 badge would read zero no matter what you're
 exposed to, or be non-detectable at least.

4 So that's this first section. Moving 5 into the second part of that, which is data 6 completeness is a little different than that.

7 And this is do we have enough data to 8 work with? Were the workers monitored in 9 sufficient numbers for you to be able to apply it 10 to the unmonitored workers.

A way to do this is to look at it 11 12 temporally too. You start off looking year one 13 and you go through the years and see are there 14 Are there some years, like five years data qaps. where it drops down substantially? And if it 15 16 does, maybe that's okay, maybe there was production stopped. 17

But that needs to be evaluated and explained in some way before you move forward with the data. I did include one graph in here which is actually out of an SC&A report which I thought was a pretty good illustration of what can happen if you don't look closely at the data.

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This is actually from the Nevada Test Site, one of the reasons Nevada Test Site was added an SEC. You can see here where we have 290 workers that were monitored, but of those workers 206 were RAD safety staff.

And the people who may have been in 6 7 harm's way, the workers, wiremen, miners, have almost no monitoring data, so it gives you pause. 8 It makes you wonder is that really an appropriate 9 10 data set to be using to apply to the unmonitored that given 11 workers the RAD safetv workers 12 probably had a different exposure environment 13 than those other workers. So that needs to be 14 considered.

Moving through the other sections of the document, the review and analysis of the monitoring program data itself. This really talks about are the data that were collected on that group of workers generally applicable to all workers that were monitored at this site?

There typically at a site, can be several different types of monitoring programs. You can have a routine monitoring program where

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1 all workers were monitored on the monthly 2 frequency for example or you could have an 3 incident monitoring program where workers were 4 only monitored when they believe that they may 5 have been exposed.

6 Well, those are two fundamentally 7 different types of monitoring programs and you 8 don't really want to necessarily mix those two 9 together.

10 MR. KATZ: Jim, can I just interrupt 11 a sec?

12 DR. NETON: Yes, sure.

13 MR. KATZ: Folks on the phone, please 14 everybody mute your phone. We're hearing a lot of background noise. And if you don't have a 15 16 mute button, press Star and then 6. That'll mute That'd be very helpful not just for 17 your phone. folks in the room, but for other people trying to 18 listen on the line. Thanks. 19

So if you have these 20 DR. NETON: different flavors, I'll call them, of monitoring 21 22 routine, intermittent and there's programs, 23 mentioned in here which is another one an

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intermittent monitoring program where sometimes for short duration jobs you may have a baseline sample taken and then a sample at the end of the project.

5 That may be totally acceptable, but 6 you need to be aware that that's the way it was 7 done and to what Class of workers that may apply 8 to.

9 So I think there's generally some 10 pretty good guidance in here about what needs to 11 be considered before you start lumping these 12 things into one category.

One thing I think that's significant in here is when you're talking about comparing incident versus routine. I think oftentimes we have lumped those two together. It may or may not be appropriate, but the last sentence of Section 3.1, I think is very important.

19 It says in this case, where you have 20 one group of workers incident monitoring, one 21 group of workers that are routine monitoring, it 22 says it would not be appropriate to combine the 23 monitoring data for these two groups of workers

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1 single coworker model. Rather, into a the default should be to consider separate models. 2 Ι significant 3 think that's very 4 because this is where we see this situation most 5 often is when you have building trades construction workers who may be on an incident 6 7 monitoring program and then the rest of the workers who are routinely sampled. 8 So this is going to require us to go 9 back and re-look at a number of the coworker 10 models that we've had in the past. 11 In my mind, 12 this is probably the most significant thing in 13 this document. 14 Ι there's lot of mean, а qood guidance, but this will probably be the one that 15 16 causes us the most pause in going back and looking 17 at things. Section 3.2, which is analysis of an 18 19 application, the unmonitored population, talks about the nuts and bolts of it. If you do have 20 21 a coworker set, you know, what do you with it? 22 How do you apply it to the unmonitored workers? 23 So it's our normal process of fitting

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some type of statistical distribution to it.
Typically, it's a log-normal distribution and
then you have to make some judgements as to what
parameters of that distribution are you going to
apply to the unmonitored workers?

Typically, we'd say if the worker was 6 in an environment that did not involve as much 7 exposure as the high end of the distribution, we 8 would apply the 50th percentile, maybe with the 9 general, the full distribution applied about that 10 or if it looked like the worker really was in a 11 12 high end exposure category and for some reason he 13 wasn't monitored, maybe his monitoring 14 information was lost, then he may receive the 95th percentile of the distribution. 15

16 Those types of judgements need to be 17 made when applying the dataset to the coworkers. 18 There's one more thing I was going to say about 19 that. I can't remember. All right.

20 One thing also is this last paragraph 21 in this section discusses what we've called the 22 OPOS statistic, the one person, one statistic 23 methodology now.

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And we've worked through this in the Working Group, I think, where if there's general agreement that if you have multiple monitoring data points on a person in one interval, like a year, you would take some sort of an average of those bioassay data to represent that worker's exposure in that monitoring interval.

8 We have agreed that the most 9 appropriate statistic would be to use a backward 10 integrated time weighted average. And I think 11 we're all pretty happy with that.

I think it's the best approximation we could use for intake which is really what we're trying to do in this case. So that took a while, but I think that was a very good outcome of this process as well.

And finally, we need to talk about the time interval of the monitoring data. You know, how much data can you lump together in a coworker model over time.

In general, we have data that seems to fit one year intervals, were not processed and changed too much, so one year tends to be almost

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1 like our default interval.

2	But in the early years, sometimes
3	quarterly samples were taken and we have an
4	abundance of data on a quarterly level, so we
5	would use that if the data were available.
6	It's recommended in here not to go
7	beyond three years for grouping of data. And if
8	it does exceed three years, it says a stringent
9	justification is required.
10	And you have to really look at the
11	process, you know. Are you confident that
12	nothing significantly changed over that time
13	period?
14	Even within a year interval, sometimes
15	things could have changed. So you need to be
16	aware of what may have changed in the facility
17	over time when you start grouping, monitoring
18	data.
19	And finally, we allow for the fact
20	that, let's say you get to the end of the rope
21	here and you say I have like comparisons. I have
22	two routinely monitored sets of populations or
23	two incident-based data sets. But I still have

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a sense that maybe somehow there's a high-end
 population out there that was not properly
 monitored and I want to see if I should have some
 sort of stratification.

And this basically gives some general 5 I didn't want to tie it to a specific 6 quidance. 7 statistical test, but it gives some general guidance about how one should proceed to do some 8 of statistical analysis 9 type both on а 10 statistical analysis between the two populations and the interval being evaluated and also on a 11 12 practical level as to how it affects the intake 13 calculation itself, so.

And that's the end of the document. So I'd be happy to answer any questions if there are any.

17 CHAIRMAN MELIUS: Questions for Jim?18 Yes, Gen?

MEMBER ROESSLER: Mostly, higher.
Dr. Melius mentioned we're not going to make a
decision on this document --

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22 CHAIRMAN MELIUS: Mic.

23 (Simultaneous speaking.)

1	MEMBER ROESSLER: You have to hold it
2	down?
3	CHAIRMAN MELIUS: Yes.
4	MEMBER ROESSLER: Oh, that'll keep me
5	on the ball.
6	CHAIRMAN MELIUS: That'll keep you
7	MEMBER ROESSLER: Dr
8	CHAIRMAN MELIUS: awake.
9	MEMBER ROESSLER: Keep me awake. Dr.
10	Melius mentioned that we're not going to make a
11	decision on this document at this time. And I
12	think that's appropriate because I think it's
13	important for every Board member to have a chance
14	to look at it.
15	We had a Work Group meeting by
16	teleconference recently and talked about this.
17	And I think that it's a very manageable task for
18	every Board member to look at this report. It's
19	only 11 pages long.
20	And when Stu made his talk this
21	morning about one of the goals of NIOSH is to do
22	things in plain writing, well, I think this is an
23	example of that.

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for 1 It's written the intended 2 audience, but it's really very easy to read and to understand. It covers a lot of material. 3 So I'm just recommending everybody do take a look at 4 it. 5

And this plain writing thing is really
nothing new. We've known this for many years.
It is an emphasis now by the Health Physics
Society.

10 There's going to be a special all-day 11 session at the annual meeting in Indianapolis on 12 plain language, both in writing and speaking. So 13 NIOSH is following right along with that.

14 DR. NETON: Thank you, Gen. I'd iust 15 like to say we are anxious at NIOSH's end to get 16 this moving forward because we have a number of 17 datasets that we're currently hanging in the balance and we'd like to proceed applying these 18 19 techniques to them. So the quicker, the better 20 for us.

21 CHAIRMAN MELIUS: I would just add, 22 and again, not to prejudge particular sites or 23 something, but certainly, this would require

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reevaluation of coworker models that combine, for example, construction worker data which tends to be incident-based along with, you know, general worker data which tends to be much more routine monitoring-based.

And this would indicate that we would not combine the two. So both going backwards, but also going forward there are sites. And I know, Tim Taulbee's very anxious on some of the sites he's looking at and others.

So it's not without implication, so 11 12 it's in terms of what we finally decided. Now, 13 each site's going to be judged individually. So 14 again, what I think has been in this document is not trying to make, you know, strict guidelines, 15 16 but rather to have a set of guidelines that will help with the evaluation and then decisions. 17

Because I think we've found in the past, that each site is different and the type of data, the amount of data, the extent of the exposures are different, so we need to keep that in mind.

23

But it is going to be important in

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terms of how we do this. 1 Much as I think the 2 discussion and the agreement we came together on some surrogate data and on the evaluation SEC 3 petitions has been, you know, helpful. 4 But it 5 also, to some extent, changed what our outcomes were and, I think, made them more consistent and 6 7 helpful.

8 But again, it is something that would 9 change. And this one we're fairly far along in 10 the process with, so in terms of having done 11 coworker models that do that, so.

12 Questions from Board Members on the 13 phone?

14 MEMBER LEMEN: Not at this time.

15 CHAIRMAN MELIUS: What we intend to 16 do for next steps is one, is we want to get 17 comments from the other Board Members, everybody, 18 and have a chance to look it over and get 19 comments.

20 And if you can get comments into Stu, 21 I think -- well, that was Stu, into Jim, and I 22 think that would be helpful. If you want to copy 23 me on them, that's fine, but the most important

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is Jim Neton, the other Jim, and I'll do that. 1 2 We are going to go through a process. We want to, sort of, pilot test the evaluation, 3 this guidance document, on a coworker dataset as 4 5 a way of, you know, making sure we're clear. Again, it's we're not going to try to 6 7 do 20 sets and make it perfect or whatever and anticipate every single situation, but at least 8 make sure is those things that we could clarify 9 that aren't clear or that need to be emphasized 10 more and so forth, again, like any document we 11 12 do, it's subject to change over time.

So we intend to do that and then we plan to come back to the next Board meeting which will be at the end of July and hopefully finalize the document at that meeting. So that'll be the time table.

But I think we're close enough now that, I think, NIOSH has some general sense of how to go forward with this. But I think it's worth doing at least some test runs and see if we can improve it a little bit more. Paul?

23 MEMBER ZIEMER: I assume the Work

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1 Group would have an opportunity to see any revisions before it came to the full Board. 2 But I just wanted to ask if it would be helpful to 3 have a specific deadline for Board Members to get 4 their comments into Jim? I don't think we want 5 them coming in the day before the Board meeting 6 7 here.

No, no. I think I agree 8 DR. NETON: 9 with Gen that it's a fairly short document. We've seen this in its current form. 10 It's been current form for 11 very close to its about 12 three/four months now. So I think within a month 13 or so, if we --

14 CHAIRMAN MELIUS: Yes, let's --15 DR. NETON: -- could see comments that 16 would be good.

17 CHAIRMAN MELIUS: -- say April 30th -18

19 DR. NETON: Yes.

-- would be the 20 CHAIRMAN MELIUS:

21 deadline.

22 DR. NETON: Yes --

23 CHAIRMAN MELIUS: And --

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1	DR. NETON: that's good.
2	CHAIRMAN MELIUS: I'll ask Ted to
3	send a note of reminder out to everybody on the
4	Board, and do that. Because we'll take some time
5	to then we'll, probably after April 30th, we'd
6	have another Work Group meeting so to do the trial
7	run or test whatever we're going to call that.
8	And to be ready in that Work Group
9	meeting to close to file. Maybe one other, some
10	more input, but certainly well ahead of the July
11	Board meeting. Okay. Thank you very much, Jim.
12	Can never tell when it's a lot of
13	questions whether it's been a good job or whether
14	everybody says this is so terrible we want but
15	I think it's a good job and I'll give a lot of
16	credit to Jim Neton.
17	He's really very thoughtful on this
18	and done a very good job of writing up and
19	listening to our suggestions and we've had some
20	pretty good discussions on this, so thanks.
21	We're sort of back on schedule, so
22	that's good. And the Kansas City Work Group has
23	been very busy holding meetings and following up

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1 on that site. So, and it's something that we 2 hope will come to closure within the next some 3 time period.

4 I'm not sure exactly when, but I 5 thought it would be useful in, sort of, preparing for that closure on that site at least in terms 6 7 of the SEC petition that we get an update on where the Work Group is in terms of their review, data 8 gathering and evaluation. So I've asked Josie 9 10 to give us an update and she's prepared one.

MEMBER BEACH: Are you ready for that?
It's about 20 minutes early. I don't expect
petitioners on the phone, but.

14 CHAIRMAN MELIUS: There's no action 15 items, so it's not --

MEMBER BEACH: All right. I washoping to step up here.

18 MR. HINNEFELD: Yes, I'm trying to19 give you the form.

20 CHAIRMAN MELIUS: Okay. Try to take 21 about 20 minutes to get this through.

22 MEMBER BEACH: Yes, I was worried 23 about having the time slot before lunch.

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1 MR. HINNEFELD: These arrows will 2 work. 3 MEMBER BEACH: Okay. So these ones 4 are the --5 MR. HINNEFELD: Yes. 6 MEMBER BEACH: These ones or these 7 ones? MR. HINNEFELD: Yes, I think either 8 9 forward and back or --MEMBER BEACH: Okay. 10 MR. HINNEFELD: I think the forward 11 12 and back are the ones that --13 MEMBER BEACH: Perfect. Okay. So as 14 Jim mentioned we wanted to update you on what our progress is for Kansas City. We're right in good 15 16 time for that. So Work Group Members are listed on this slide. 17 This is a picture of the old Kansas 18 19 City Plant. Recently, Kansas City moved to a new I have that at the last photo. But this 20 plant. 21 is the old Bannister facility which is now 22 undergoing environmental certification. land is for sale. 23 The It's mγ **NEAL R. GROSS**

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understanding that this building will be - they'll start demolishing it in 2016. That's the
 scheduled date.

So we've had two Work Group 4 Okav. 5 meetings. We had one in June. Our most recent 6 one was in January. And this briefing I'm giving 7 is based on our last Work Group meeting because we've had a site visit since then. So everything 8 just what our Work Group has discussed in 9 is 10 January.

We've had one technical call. We've conducted four site visits jointly with NIOSH. The earliest one was in December of 2012, that was when we started with the Site Profile.

course, we moved into the 15 Of SEC 16 petition. Our most recent visit was March of 17 this year, 2015. And we've also been to Germantown DOE, that was also a joint review of 18 classified records. 19

Okay. So what I want to do is just go over real brief snapshots of the open issues, then we'll go into what we moved into TBD issues and then onto our closed issues.

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1 Of course, these are snapshots, so if 2 you want the full, I mean there's pages of them and bringing them down into one or two lines is 3 difficult. So there is, of course, always backup 4 material out there if you're interested in it. 5 the first open issue is 6 So Tssue 7 Number 1. It's our data completeness, legibility and accuracy. I know you've seen this at all of 8 our sites. 9 NIOSH is committed to provide the Work 10 Group with a sampling plan for validating the 11 12 electronic databases using raw records for both the internal and external dose. 13 14 Following us getting the sampling plan at the Work Group level, NIOSH is going to conduct 15 16 a sampling review and, of course, provide those results to us. 17 The second one is Issue 7, radioactive 18 Much work has been done to ascertain how 19 waste. radioactive waste was handled, shipped and stored 20 21 at KCP. We did that through interviews. 22 Like I said, we've been at the site 23 four times. Each one of those visits included **NEAL R. GROSS**

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numerous interviews, weekly activity reports and
 from the solid waste information management
 systems that were available.

During a recent site visit SC&A and NIOSH identified former workers who were not bioassayed when handling depleted uranium and the mag-thorium waste. So NIOSH is going to look at that new information and it'll, of course, be a topic at our next Work Group meeting.

10 Number 9 was the external coworker 11 dose. It's pretty much the same for Issue 1. 12 NIOSH is going to go ahead and give us a sampling 13 plan to validate the electronic external dose 14 records with those raw records.

Issue 11, the neutron/photon issues, 15 16 originally we were going to use OTIB-024. It was determined through our Work Group meetings not to 17 be appropriate to estimate neutron doses at the 18 Kansas City Plant. 19 So NIOSH proposed a new methodology which we heard at our last Work Group 20 21 meeting in January.

They're going to provide to us, to SC&A, the location of 35 data points. SC&A,

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they'll look at those and get back to us with
 their conclusions for discussion at the next Work
 Group meeting.

Okay. And then 13 is the mag-thorium alloy operations. At our last Work Group meeting SC&A was -- we determined that they needed to review NIOSH's latest White Paper. There wasn't quite enough time before the Work Group meeting to do that. So --

10 MR. KATZ: Sorry, Josie. But --

11 MEMBER BEACH: Yes, no problem.

MR. KATZ: -- someone online needs to
mute their phone.

14 MEMBER BEACH: Maybe they did.

MR. KATZ: We can hear, sort of, some
music. Well, I can still hear it, so I --

17 MEMBER BEACH: It's on hold.

MR. KATZ: I'm not sure what we do about that because if they're on hold, they're probably not in the room. If you know you're on hold and you're in the room with your hold, please take it off hold, hang up and dial back in.

23 MEMBER BEACH: So are people on the

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1 line having trouble hearing me or should I wait or just go forward? 2 (Off the record comments.) 3 MEMBER BEACH: Okay. So we were 4 5 looking at the mag-thorium or, yes, thorium alloy operations. We do have the White Paper that we 6 7 need to look at and, of course, we'll wait for those results from SC&A. 8 The recent onsite effort was directed 9 at obtaining the additional information regarding 10 the years 1966 through 1970 in Departments 20, 11 and 1971 through '79 in the Thorium Model Shop. 12 So more work needs to be done there. 13 14 So Issue Number 15 is our Okav. thorium oxide operations. Key clarification was 15 16 achieved during our most recent visit, which will 17 be a topic at the next Work Group meeting. SC&A is to complete their final review 18 of the SRDB database and the nuclear materials 19 management and safeguard systems, that's NMMSS 20 21 records. 22 Number 16, the natural uranium from 23 1950 to 1958, the application of TBD-6000 was **NEAL R. GROSS**

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discussed. SC&A validated the application of TBD-6000 for unmonitored natural uranium fabrications for the years 1950 to 1955 and then for '55 through '58, for the residual period.

5 The Work Group is fairly close to 6 agreement on that assuming there's no other rad 7 activities present. We kind of held off closing 8 that based on more site visits that had been 9 planned.

10 NIOSH also agreed to make available 11 some radiological mapping for us. Now, we did 12 get that. It was actually delivered to our hotel 13 at the last site visit.

14 In the back room I have placed four 15 maps. The first one gives you periods from 1952 16 to 1958. The second one is the 1959 time period. 17 And then the third one is 1963 and then 1983.

And you may wonder why we have all those years covered. That site went under -- it was constantly changing, rooms were being added, rooms were being taken away. The maps, I've highlighted them from what NIOSH highlighted and what we've discovered, highlighted them, so that

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you can take a look at where the radiation areas
 were and where they moved and changed throughout
 the years.

I'll leave those maps back there, it's
not the best situation because they're very
large, but until the end of the day if you want
to take a look at those that is available.

8 Okay. Issue Number 17 is our D&D 9 activities. There have been many D&D activities 10 over the 60-plus year history of the Kansas City 11 Plant.

12 The Work Group has been looking to 13 confirm that all workers performing D&D were in 14 a monitoring program. During recent site visits 15 SC&A and NIOSH identified unmonitored workers 16 involved in the internal Kansas City D&D.

17 So we're looking for a path forward. 18 SC&A is going to come up with a path forward on 19 the data research and information and that will 20 be provided to NIOSH before the next Work Group 21 meeting and then NIOSH, of course, will follow up 22 with a analysis and dose reconstruction.

23 There was one time period, and Joe,

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correct me if I get this wrong, where Rockwell
 came in. It was very clearly documented that
 Rockwell came in and did D&D activities.

What we're looking for is the as the rooms changed, as projects were finished, Kansas City people did some of that and/or they brought Rockwell in. And it's not very well-documented, so we've been looking for information on that throughout these numerous site visits.

10 Okay. Issue 18 was accidents, 11 incidents and fires in the workers' records. 12 Early on we heard about fires, so we were looking 13 for more information on that and continue to do 14 that with each site visit.

15 So we're still searching for 16 additional incident reporting and we did collect 17 a large number of documents in March and we will 18 search those and review them.

19 So let's see, 20, tritium, this is the 20 last of the open issues. The Work Group has been 21 looking for specific information regarding source 22 terms, operational conditions and workplace 23 measurements to understand which Kansas City

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1 Plant workers were involved in these operations. NIOSH is going to update their White 2 Paper on the tritium issue with new information 3 organic tritium source terms. That 4 on was collected at the last document search.

So this is a map Т 6 Okav. found 7 online. Joe suggested that I add some maps. So this gives you kind of an outline of, there's a 8 difference between GSA workers, they're 9 not 10 covered within the program and then DOE sections. So there's a DOE custody and control 11 12 that's in yellow. The DOE PER permit, I asked Joe earlier because I wasn't sure what that was. 13 14 We're assuming and maybe NIOSH can correct me if that's wrong, that DOE was using some of GSA's 15 16 areas. That's in red and then, of course, the areas are in blue. 17 GSA And those are not covered, so it's kind of a difficult site in those 18 19 terms.

20 CHAIRMAN MELIUS: Did you suggest to 21 Joe that maybe SC&A, as the contractor, should 22 provide some maps?

23 Well, I --MEMBER BEACH: No, no.

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yes. Actually I had him look at the ones I
 pulled. He kind of told me where I could find
 them and then we went from there. He was happy
 with the ones I found, so, yes.

5 Okay. So the next slide talks about 6 what the Work Group determined to be TBD issues. 7 We combined 2 and 3. And these three have been 8 put onto the Site Profile matrix. So we're not 9 finished with them, we've just moved them into a 10 different classification.

So for Number 2, the work location 11 12 category and coworker models, questions revolve around free movement of workers and access across 13 14 facility. Could workers the qet into the department? Could they not? Were the doors 15 16 open? This was the subject of a lot of our interviews. 17

How the worker drop categorization was accomplished, that was a huge topic also of, you know, the categories didn't always match what they were doing in some cases.

22 So the remaining issue revolved around 23 implementation of coworker model, but not the

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feasibility, additional information regarding the adequacy and completeness of data used for a coworker model and it's applicability to various job categories was also retrieved and will be incorporated into the next TBD revision.

6 3, chronic versus acute, and again, we 7 did combine these. Work Group agreed that the 8 questions regarding chronic versus acute intake 9 patterns does not represent an SEC issue and can 10 be accommodated by the TBD Model 6000.

11 The issue of unexplained high bioassay 12 readings in 1960 and '61 will be addressed under 13 the matrix Issue 18 as part of the review of the 14 Kansas City Plant incidents.

And then, 10 non-penetrating dose, clarification was needed on how non-penetrating dose would be calculated and the recorded data to be determined if appropriate data was recorded for dose reconstruction purposes. The Work Group did agree that these external dose record terms be clarified and included in the TBD, so.

22 Okay. On to closed issues. So these 23 have all been agreed upon and closed within the

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1 last two Work Group meetings.

Number 2 Issue 4, Super S uranium. While it was likely that some of the uranium 3 handled at Kansas City has high-fired, there was 4 no clear evidence of insolubility that would 5 dose reconstruction with sufficient 6 preclude 7 accuracy.

5 was recycled uranium. TBD-6000 8 9 addresses recycled uranium and it's model 10 calculations. NIOSH will assume recycled uranium was present at Kansas City Plant and 11 12 perform dose reconstructions accordingly.

6, the DU after 1971 and during and
after 1997. DU ballasts, we found those on some
of the weekly reports or during some of our site
visits.

DU ballasts were actually fabricated 17 off site and would not have presented an exposure 18 19 potential for the workers handling them at Kansas City Plant. other 20 No DU materials were 21 unaddressed by the Evaluation Report identified 22 during recent onsite captures, which I already 23 mentioned.

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1 Okay. Number 8, metal tritides. The 2 Work Group agrees that exposure potential at 3 Kansas City Plant to metal tritide contamination 4 was minimal and isolated with no evidence of 5 worker uptake.

12, the fading of NTA. Evaluation of 6 7 the neutron sources and their utilization indicated the low-energy moderated neutrons would 8 constitute a significant portion of 9 not the therefore, fading of the low-10 neutron doses, energy neutron tracks would not be a major issue. 11 12 And, additionally, individual neutron 13 readings would not be used in dose Instead 14 reconstruction. 95th percentile а coworker value assigned for workers potentially 15 16 exposed. So that takes care of that.

monitoring, 17 The post 1993, all documentation in the years between promulgation 18 19 of 835 and its implementation at Kansas City by 1993 indicates a comprehensive approach by Kansas 20 21 City and DOE to ensure compliance. This included 22 DOELAP accreditation for Kansas City in November of 1992. And I apologize for reading this. 23 I'm

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sure you can read them yourselves, but.

2 Potentially unmonitored exposures, 19, tritium was the only source term 3 Number either not discounted and not addressed 4 5 adequately in the Evaluation Report. The question of tritium as a potential exposure 6 7 source, we'll address that in the open item Number 20. 8

9 So next steps, when I put this 10 together, it was we were going to have our next 11 planned Work Group meeting which is going to be 12 a day-and-a-half.

We want to give the petitioners a chance to view or to air their issues. The last Work Group meeting we ran out of time and weren't able to hear from the petitioners adequately.

We were originally looking at mid-May. Now, I think we're into -- well, I switched this to June and then, now I think it's July. We're having really a tough time getting everybody with the summer coming on, together. So I think we're going to work on that in the next two days to try to come up with a day-and-a-half where we can

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1 meet.

2	And I think most of our stuff we
3	should be able to close out and have a
4	recommendation for the Board in July if we can
5	get together. So that's all I have. Thank you.
6	CHAIRMAN MELIUS: Thank you, Josie.
7	Questions from Board Members? Wanda.
8	MEMBER MUNN: Thank you for that good
9	presentation, Josie. That's sure a lot of
10	material at Kansas City. But a couple of
11	questions based on things that you said.
12	I was wondering why you'd found that
13	OTIB-24 wasn't the good basis for your neutron
14	calculations. What was the basis of the concern
15	for throwing the OTIB out?
16	MEMBER BEACH: I'm going to let my
17	technical folks grab that one. And Pete's not
18	here, so
19	DR. NETON: I'm trying to remember.
20	That was a generic calculation we had in one of
21	our TIBs that had to do with the alpha-n reaction
22	with I think it only applied in situations
23	where we had highly enriched uranium and this is

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a natural uranium facility. So it wouldn't have
 generated any neutron dose.

The neutron exposures actually came as 3 a result of, I think, some sort of californium 4 5 sources and instruments such as that and the alpha-n reaction in the uranium with a low-Z 6 7 material wasn't appropriate. That's my --MEMBER MUNN: That's --8 DR. NETON: -- recollection. 9 10 MEMBER MUNN: ___ interesting. Ι didn't remember that part of the OTIB, but okay. 11 12 DR. NETON: Yes, there's a TIB out 13 there that gives you some generic guidance about 14 what the neutron dose exposure rate would be with an alpha-n reaction --15 16 MEMBER MUNN: Yes. -- in enriched forms of 17 DR. NETON: uranium. 18 Well, the other 19 MEMBER MUNN: Yes. question is similar, but, of course, an entirely 20 21 different thing. With respect to what you are 22 concerned with relative to the tritium source

23 that you have, what do you have, I guess, that

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has some bearing also with your non-penetrating dose issues? Aren't your badge data adequate for getting that self beta?

MEMBER BEACH: Well, what we found was 4 5 a source term that they were doing an operation that wasn't in the Evaluation Report. 6 We found 7 it in some weekly activity reports, so we brought it in as an item to do further research on to see 8 if we could track down that source and if there 9 10 was monitoring done.

But so far we haven't been able to 11 12 determine who actually did that work. 13 Understandably, it's a low dose, but just trying 14 to reconnect all of that. And Joe, if you have anything else, there's --15

16 MEMBER MUNN: So it was project of 17 some sort that you have questions about right 18 now?

19 MR. FITZGERALD: It's Joe. This is 20 not to a typical of a review where you find a, 21 you know, historic source trend. This one went 22 way back to the '60s and was a tritium bottling 23 operation that they were doing on behalf of

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1 Sandia.

They were getting tritium and they were, you know, taking a larger amount of tritium and just bottling into I think it was four milliliter bottles to be used in instrumentation for DoD. It was one of these work for others type of things.

8 And we were hopeful that we could put 9 that one to bed real quick just by finding the 10 records for how long that went on and who did it 11 and where they did it.

12 The one thing with Kansas City, 13 though, you can't assume that you're going to 14 have the records. So what we established was yes, they did do it and I think, the NIOSH team 15 16 went a long ways to characterizing a timeframe and a certain source term in terms of, well, what 17 did this represent in terms of activity levels. 18 19 And then doing some modeling as to what the potential exposure might have been. 20

But, you know, the difficulty is if you don't have any more than that, you don't know who actually handled it and where they handled

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it. I think we're guessing it was handled in the
 laboratory.

3 So have of that you some reconstruction going on, but it was tritium, it 4 was a small operation and it didn't last very 5 much longer than the mid to late '60s. 6 7 So the reason it's open, of course, is that we're hopeful in the last data capture that 8 we might find a little bit more documentation, 9 10 but the records have been a little scanty on it. Well, this is such an 11 MEMBER MUNN: 12 interesting and complicated site. It's helpful to have the information and to know that we're 13 just talking about changing bottles for the --14 FITZGERALD: Well, the other 15 MR. 16 thing --17 MEMBER MUNN: -- most part. 18 MR. FITZGERALD: -- too --19 MEMBER MUNN: Okay. MR. FITZGERALD: -- is at a site like 20 21 this, and this is probably typical of some other 22 DOE sites, they went ahead and destroyed a lot of 23 records somewhere in the '80s and '90s. And so

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1 while the things that, you know, tritium 2 operation in the '60s was considered a priority. A lot of it was the records were destroyed. 3 So 4 _ _ 5 MEMBER MUNN: Well, it's so --6 MR. FTTZGERALD: -- we don't have 7 that. MEMBER MUNN: -- minuscule and so 8 9 pointless, yes. Yes. 10 MR. FITZGERALD: So, yes, we --MEMBER MUNN: It would have been a --11 12 MR. FITZGERALD: -- didn't retain it. 13 MEMBER MUNN: logical thought _ _ 14 then. 15 MR. FITZGERALD: Yes. 16 MEMBER MUNN: Thanks, Joe. Thanks, Josie. 17 Thanks, 18 MEMBER BEACH: Wanda. Ι 19 failed to mention the last slide, the picture is the new plant that they moved into the first of 20 21 last year or the end of last year. 22 CHAIRMAN MELIUS: Any other Board Members on the phone, do you have any questions? 23

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1 If not, I will just add to the one, first I'd 2 like to, you know, commend the Work Group. Your 3 efforts to get public comments, both, you know, 4 part of Work Group meetings and so forth, I think 5 is very good and very helpful.

Because I think on a site like this 6 7 that's complicated and the getting input from people who've worked at the site is sort of 8 critical to understanding the site and making 9 10 sure that, you know, records are complete, incomplete or understanding more about the site. 11 12 So it's very good.

I also just noticed in a lot of the outstanding SEC issues are where there seems to be some uncertainty about whether data is adequate or procedures to use and so forth.

And repeat what I keep getting after NIOSH about is we need to make sure that we can do the dose reconstructions. Before we close out the SEC issue, we need to see some evidence. And we seem to have gotten away from that with our Evaluation Reports and presentations.

23 And I would call, you know, it's for

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the Work Group or for the Board, it's, well, it doesn't matter, but I really think we need to try to do our due diligence on that.

Again, not always in every great detail, but enough so that the Members of the Work Group or the Members of the Board are confident that what is being proposed can really be done so we don't have to go back and revisit these sites, so thank you.

think we're, 10 Now, that I for the morning, we're ahead of schedule a little bit. 11 12 We will take a break. We will reconvene at 1:30 this afternoon for those of you that are on the 13 14 And we will start with a Board work phone. session after lunch. 15

So it's a Board work session, not the 16 17 Board nap session, so be sure to get your coffee on your way down the stairs and we'll see. 18 We've 19 got a busy afternoon in terms of work session and Hanford presentations and public comment. 20 So 21 thank you all. We'll see you all back here at 22 1:30.

23

(Whereupon, the above-entitled matter

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went off the record at 11:39 a.m. and resumed at 1:35 p.m.)

3 CHAIRMAN MELIUS: Okay. We're qoing to restart the session now. So Board Members on 4 5 the line, do you want to do a roll call or how do 6 you want to do that? 7 MR. KATZ: We don't need roll call, but let's -- well, except for the Board Members 8 9 on the line. Let's check and see. (Roll call.) 10 CHAIRMAN MELIUS: Just that we missed 11 12 you all. Okay. So we have this afternoon start 13 with the Board work period and a session to do I quess my finger will get tired here, 14 that. but. 15 16 So we will start with the public 17 comments from the last meeting, get that addressed and do that. I think, when I looked 18 through these earlier, they all look pretty 19 straightforward. It's mostly from the 20 Santa 21 Susana site, do that.

We start out with a series of -- if you turn it's the besides the Board comments it's

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the spreadsheet portion that should be on it. At least, all the Board Members should have received it from Ted. And there's two files and this is the spreadsheet file.

5 To start out, we have a series of comments from, I believe she's the petitioner on 6 7 the Santa Susana site. I think these are all straightforward and actually don't 8 require They mostly deal with DOL or other 9 response. issues that are out of our control. 10

We had another comment related about the issue which we've talked about, but again, it's out of our control. This is regarding what areas of the site are covered and that's really a DOL decision, not ours. And I think it's been brought up and so forth before.

We have another person describing some 17 exposure incidents, again, which is 18 sort of 19 helpful information going forward to that. Another person bringing up a number of decisions 20 21 again, most of which are unrelated to our work. But in terms of don't require a response, some of 22 it's, again, DOL-related issues about other areas 23

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and so forth and about some of the environmental
 concerns about the site.

Another one where there's about, which has been followed up, a concern about exposures in a fire and explosion. I think that looks like it's been followed up.

7 We then had a -- make sure I didn't skip one here, look down. Yes, we then had 8 9 from Terrie Barrie comments concerning one 10 comment regarding the area designation for Santa Susana and then two comments related to a Rocky 11 12 Flats petition. Again, these were followed up 13 on, I think, appropriately.

14 have it looks like We then two comments from Jeff Schultz, again, related to 15 16 Rocky Flats again, that were followed up and Mr. interviewed after 17 Schultz was the meeting, 18 followed up on.

And then, finally, we have a public comment from Dr. Dan McKeel regarding the GSI site and again, this issue about citation and so forth.

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So I think that's straightforward and

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1 I think that takes care of it. Any Board Members 2 have comments or questions on those? MEMBER BEACH: 3 No. CHAIRMAN MELIUS: 4 Okay. 5 MEMBER BEACH: Sounds accurate. CHAIRMAN MELIUS: T believe Thanks. 6 7 it's accurate and, Ι think, appropriately responsive, so to speak. 8 Okay. 9 Now, I'd like to start the Work Group 10 Subcommittee session with а little bit of discussion on the dose reconstruction issue. 11 We 12 talked about this a little bit in past meetings 13 and at the last meeting and unfortunately due to 14 some scheduling issues the Dose Reconstruction Subcommittee wasn't able to meet between Board 15 16 meetings. And had one planned, I believe, a 17 couple weeks ago and got cancelled. They are scheduled to meet in April sometime I believe 18 19 also. But we're in a situation where we're 20 21 very far behind in the resolution of cases. 22 We're up to Set 13, I believe, and we've got sets 23 14 through 21 which are left still open for

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1 resolution.

doesn't 2 And it that seem we're catching up at a very significant speed. 3 That it's going to be years before we will at the 4 current rate of evaluation and response. 5 It just takes time and just limitations to both what SC&A 6 7 and NIOSH can do in terms of preparing for these as well as the amount of Board time it'd take or 8 Subcommittee time that it takes. 9 10 We owe the Secretary a letter, you

11 know, we haven't done one in quite a while 12 summarizing where we have. And I think as we 13 sort of talked about last time was we'd get up 14 through 13 and then do a letter. But that still leaves 14 through 21 to resolve and we also have 15 16 another, you know, what do we do going forward. think 17 Τ don't we doing dose can stop reconstruction reviews. 18

19 So at least my sense, and I'm hoping 20 other people share this, is that we need to sort 21 of rethink how we're doing this process. Both 22 how do we clear the, you know, 14 through 21, but 23 what should we be doing going forward in terms of

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doing dose reconstructions and reviews?

And is there a better way? Do we need to, you know, try to, you know, go through as much detail as we're doing now? What sort of mix of, sort of specific reviews and blind reviews should we be doing? Are the blind reviews productive or are the other reviews we're doing productive under that?

9 asked the SC&A to do we So some 10 summaries for us that are based in two spreadsheets, I believe, that they provided to 11 12 us, one that's called additional detail Set 14 13 through 21, and then a summary of sets 1 through 21. 14

These fairly detailed, 15 are 16 particularly the 14 through 21 set in terms of And so I'd like to do is if, well, 17 information. just again, in the context of what do we do going 18 19 forward in terms of thinking. If the Board Members make sure that you've looked at those 20 21 We'll talk about them during our work today. 22 time update from the tomorrow and qet а 23 Subcommittee.

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But what I would hope we could do and hopefully we could do it between now and our next Board meeting. Maybe we could reach some decision today. But I think it's going to take some time.

I want the Subcommittee to think about
how to best approach this also because they've
been involved, but that we sort of revamp and
rethink how we're doing this whole process.

It's also why I asked Stu to do a 10 summary on this sort of QA/QC efforts on the part 11 12 of NIOSH, so we know the set there. And I mean, 13 and I think there's some question, you know, to 14 what extent are we providing QA/QC for the overall program and to what extent we should be, 15 16 you know, doing, you know. What are the key 17 and focusing on what are the critical parts issues in terms of with dose reconstruction. 18

And I think after whatever it's been, 20 12 years or so forth that we've done these dose 21 reconstructions, but I think it's time we ought 22 to, you know, start really taking a very serious 23 look at what should be done there.

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And we can think about, so how do we achieve that over the period of the next few months. I think it's obviously something all the Board Members need to be involved in because that's one of our key roles as envisioned in the legislation and so forth.

7 And at the same time we've got to do 8 that and I don't want to, sort of, overburden the 9 Dose Reconstruction Subcommittee because you've 10 got work to do and we need to keep moving forward 11 on that.

12 And so one of the thoughts I had, and 13 we can talk about this more tomorrow, is do we 14 set up a separate, you know, Work Group that would 15 include some of the people from that Subcommittee 16 and some others to think about how to go forward 17 and come up with a suggestion for the Board?

And that Work Group could then meet in between and come up with an idea and circulate some proposals to the other Board Members. But let's think about that and talk about that.

But I just don't think we can go on doing it the way we're doing it now. And I don't

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think we're doing our job appropriately. And
 again, not to fault the Dose Reconstruction
 Subcommittee.

Т think it's process that 4 а we I'm not 5 probably needed to do what we are doing. sure that we needed to do it for as long and as 6 7 we have been doing without sort of going back to a hard look at it and so forth. 8

think those two spreadsheets 9 So Ι 10 provide some food for thought on that. Aqain, we're not going to be able to go through them in 11 12 detail at this meeting. We're not intending too. But it also would be helpful for Board Members to 13 14 look at those and think about what other information might be useful in helping us to 15 16 decide to go forward.

think 17 And Ι don't it's simple а These sites are complicated. 18 process. The dose reconstruction methods are being used there. 19 It's, you know, keeps changing because they're 20 21 being updated, which is all appropriate.

As we learn more about a site and we learn more about how to better do dose

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reconstructions, NIOSH is constantly updating these site -- and we're learning more about the sites, so it's not static. And I think that sort of a moving target in terms of reviewing. And we've got to take that into account also.

And I think we're also constrained by some of the legal issues in terms of that we have to wait until we're fairly far along on the dose reconstruction process after a claim is finalized before we even can really take a look at it. So that adds a further complication to it.

12 So, anyway, if everyone can look at 13 that and we'll talk more about it tomorrow. And 14 if that's satisfactory with everybody?

MEMBER KOTELCHUCK: Yes. DaveKotelchuck. Yes, that's fine.

17 CHAIRMAN MELIUS: Yes.

18 MEMBER KOTELCHUCK: Because we 19 finally finished 10 through 13. I took over as 20 chair as we were going through 10 through 13 and 21 we finished it now. We're at 114.

22 So this is an appropriate time to look 23 at 14 through 21. And if we're going to make

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changes, make changes. Also, we need at least
 another person on the committee since one of the
 persons, Mark Griffon, has left the Board.

So this is an appropriate time to talk 4 let's talk about it 5 about it and further Maybe some of us from the Subcommittee 6 tomorrow. 7 can also talk together while we're here before Thanks. 8 tomorrow.

9 CHAIRMAN MELIUS: Yes. I would add 10 just not at the Subcommittee, anybody on the 11 Board's welcome to talk to each other about it. 12 MEMBER KOTELCHUCK: Right. Oh,

13 absolutely. Yes.

14 CHAIRMAN MELIUS: Maybe can do that15 then.

16 MEMBER BEACH: Any ideas are welcome. Yes, we'll do it. 17 CHAIRMAN MELIUS: So in terms of other Work Groups, it would help 18 19 me to know if anybody has to leave early tomorrow. scheduled 20 We're to qo to 4:30. 21 Anybody here. I don't -- okay. I think we're 22 set then. Do you have the list typed? You always have the list. If not I will do the Work 23

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1 Group list in alphabetical order, so to speak. 2 Ames Laboratory, that's you, Dave. MEMBER KOTELCHUCK: Pardon? 3 CHAIRMAN MELIUS: Ames. It's early -4 5 6 MEMBER KOTELCHUCK: Nothing --7 CHAIRMAN MELIUS: -- so. MEMBER KOTELCHUCK: Yes. Nothing 8 9 We're awaiting, basically, reports from new. 10 NIOSH, which will come during the summer. CHAIRMAN MELIUS: Yes. 11 So until then, 12 MEMBER KOTELCHUCK: 13 there's nothing further to report, nor are we having meetings. 14 15 CHAIRMAN MELIUS: Is it NIOSH or SC&A? 16 MEMBER KOTELCHUCK: No, it's NIOSH. 17 CHAIRMAN MELIUS: NIOSH it is, okay. 18 Good. Okav. Blockson, I also don't believe 19 there's any action on? Blockson 20 MEMBER MUNN: No. is essentially closed --21 22 CHAIRMAN MELIUS: Yes. 23 MEMBER MUNN: -- so there's nothing **NEAL R. GROSS**

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1 happening.

2	CHAIRMAN MELIUS: Brookhaven?
3	MEMBER BEACH: Brookhaven, we're
4	still waiting for the TBD and those are expected
5	July of this year. So we'll look at those when
6	they come out.
7	CHAIRMAN MELIUS: Okay. Fernald?
8	MEMBER CLAWSON: We're pretty well
9	finished up. NIOSH has still got to deliver us
10	the neutron/photon ratio. And what Fernald
11	oh.
12	Fernald, you had some changes in that
13	one. I'll let Stu talk to that. They've got to
14	do a little bit of an update on the Site Profile.
15	MR. HINNEFELD: Yes, on Fernald we
16	have to issue the revised internal dosimetry Site
17	Profile, which will incorporate a number of the
18	things we've agreed to in the meeting. So I
19	think it's several things are in abeyance until
20	the guiding document is out.
21	And then the coworker or the uranium
22	coworker model at Fernald for NLO, in-house
23	employees has to be refashioned in the time

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weighted, backward integrated average so that
 coworker has to be remodeled. So I don't have
 completion dates right now.

CHAIRMAN MELIUS: Thank you, Stu and 4 Hanford, we'll be talking about 5 Brad. Okay. 6 later today about one petition we'll be 7 presenting a little bit later, so we can skip that. 8

9 Idaho, we'll be talking about tomorrow 10 and I think we'll be better to, sort of, do an 11 update on where the Work Group should be doing 12 and so forth after we've heard about the SEC 13 report tomorrow and map what we need to go 14 forward. Lawrence Berkeley, Paul?

MEMBER ZIEMER: Yes. I have a brief report which Lara Hughes provided for me. And I'll just summarize it quickly.

NIOSH had sent two White Papers to the
Work Group in December of 2013. Those also have
already been reviewed by SC&A, but the Work Group
has not addressed them yet.

22 Those White Papers address various 23 issues with the internal data at Lawrence

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1 Berkeley. And NIOSH is continuing to work on 2 several remaining tasks which relate to the White 3 Paper, such as refining the dose reconstruction 4 process using the Lawrence Berkeley internal 5 data, doing some more research on potential doses 6 from short-lived mixed activation products.

7 And NIOSH has identified some 8 additional data capture items that need to be 9 researched before a final assessment. And the 10 availability of data is reached, so there's an 11 ongoing effort there.

12 This includes assessing whether or not 13 any of the newly captured data contain usable 14 bioassay data and whether or not available air 15 sample data is suitable for developing dose 16 bounding approaches for mixed fission products or 17 rather, mixed activation products.

18 So these tasks are still ongoing. We 19 had originally thought they would be done earlier 20 this year, but they have not yet been completed. 21 So we're simply awaiting for those work products 22 from NIOSH. Those additional products will then 23 need to be reviewed by SC&A as well.

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1 CHAIRMAN MELIUS: Okay. Thank you. 2 Thank you, Paul. Kansas City, we've heard from 3 already. Los Alamos, I've asked Josie to become 4 the chair of that after Mark Griffon resigned 5 from the Board. And so, Josie, do you want to -6 -

7 MEMBER BEACH: Yes, I requested that 8 Greg Macievic from NIOSH give me just an update 9 and I've received that. I'll just give you a 10 real brief of where we're at.

11 So in August of 2012, we approved a 12 petition from January 1st, 1976 until December 13 31st of 1995. The last thing that we asked NIOSH 14 to look at was the cutoff date, so we cut it off 15 at '95.

16 We wanted to make sure the site was in full compliance of 10 CFR 835. 17 And I know from the report I got from Greg, there's been a lot of 18 19 work on NIOSH's part trying to get documentation And that the bottom line is they're 20 from LANL. 21 not getting anywhere from what I can tell based 22 on this email.

The last paragraph, it says absent

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definitive confirmation from LANL to complete this post-1994 LANL evaluation, NIOSH intends to conclude that given the assurances received from pertinent site personnel, LANL does comply with the requirements of 835. This conclusion will be reported back to the Work Group.

7 So it sounds to me like they're going 8 to put it back into the Work Group's hands. So 9 I think we need to talk to DOE and I think Pat 10 talked to Joe earlier and possibly they could go 11 through their records to see if there's anything. 12 And don't know if you could say a few

words, Pat? Not to put you on the spot, but that might be another avenue to look for records. It looks like we need maybe to put that, how'd you put it, that pressure on the site to get some records? Because I don't think the Work Group's going to be satisfied with that answer.

19 CHAIRMAN MELIUS: Yes.

20 DR. WORTHINGTON: Yes, I did get a 21 chance to talk with Joe and I think we have an 22 overall strategy. And DOE will go back and look 23 and report back in terms of what we have or do

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1 on this particular topic. not have Okay. Thanks. 2 CHAIRMAN MELIUS: So, aggressive --3 MEMBER BEACH: Thank you. 4 5 CHAIRMAN MELIUS: -- inspiration. 6 MEMBER BEACH: Yes. Yes. 7 DR. WORTHINGTON: Very aggressive inspiration. 8 Thank you. 9 MEMBER BEACH: Because, you know, 10 while all sites became into compliance, I know that once that date was set, it took a while to 11 12 come into complete compliance. 13 So we're not going to stop working, 14 but -- and I know NIOSH has -- I've got the list of what they've looked for and they've done due 15 16 diligence, but we still need to keep working at 17 it, it looks like. So we'll probably have to set up a Work Group call and just kind of decide where 18 19 we're going to go is, I think, what our next step will be. 20 21 Thank you, Josie. CHAIRMAN MELIUS: 22 Any guestions that? I do believe we need another 23 member for this Work Group. And I also will add

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that I believe we're going to need another member for another -- we need to form another Work Group, so I think it'll come up tomorrow in our discussions.

5 So when we get to that point, we'll 6 circulate and give people and people will have 7 time, who aren't at the meeting or on the phone, 8 time to -- aggressive solicitation of volunteers 9 to in our current parlance here. So, yes. 10 Mound?

11 MEMBER BEACH: Okay. So all the 12 internal TBDs have been revised. The external 13 we're set to get in May. And none of these have 14 gone to SC&A for review, so we're --

15 CHAIRMAN MELIUS: Yes.

16 MEMBER BEACH: -- at the point where 17 all the TBDs will be updated and then we'll have 18 to move to the next step.

And I know there's a long list of Site Profiles that need to be reviewed, so we'll step in. We'll get in line, I guess, with the rest of the Work Groups.

23 CHAIRMAN MELIUS: Thank you, Josie.

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1 Nevada Test Site, Brad?

2	MEMBER CLAWSON: Yes, with Nevada
3	Test Site, we're coming to a close on it. We
4	have a few Site Profile issues that we're working
5	through with Nevada Test Site. We also have a
6	neutron/photon ratio with that one we're waiting
7	for from NIOSH. And we should be closing that
8	one.
9	CHAIRMAN MELIUS: Okay. Thanks. Oak
10	Ridge?
11	MEMBER ROESSLER: I have an update
12	from Dr. Tim Taulbee, who's the NIOSH-ORAU lead
13	on this. This sounds awfully loud. It seems
14	like this has been going on for quite a while,
15	but I want to remind people that this is the Oak
16	Ridge National Lab, the X-10 facility which was
17	in operation for a long time.
18	And then the nature of the work, the
19	research and development, not only a lot of
20	years, but a lot of possible sources of exposure.
21	So you've heard talk about the 250 exotic
22	radionuclides. That gives you a context for the

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23 work that's involved.

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As you know from past reports, NIOSH overall has been validating in the bioassay data that was coded for ORNL claim of data and NOCTS. Well, as Dr. Taulbee says, unfortunately, last fall we began to find significant discrepancies between the NOCTS data set and the electronic data provided by ORNL.

8 This came about, apparently, because 9 the data entry was being done by a technician, 10 not a health physicist, someone who really didn't 11 understand the situation.

12 And some of the results were entered 13 as dpm, disintegrations per minute per day. And 14 in this case the results should have been in dpm 15 per sample.

So it's possible to fix this, but they're having to go back and redo a lot of this. According to NIOSH, this validation is nearly complete. So we hope to have good results on that. So that's one item of update.

21 Number 2, in addition to the bioassay 22 data validation, the team has been looking at 23 thousands of pages of data from the ORNL health

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1 physics log books that they captured last summer. And in this review they're looking at 2 smear sample data for these exotic 3 air and radionuclides for potential in 4 use dose 5 reconstruction.

And then Item 3, this is the first 6 7 I've heard of this and probably you too, they have discovered a possible gap in the iodine 8 monitoring. this occurred during 9 And the 10 radioactive lanthanum campaign which took place in the mid to late 1950s. And this was before 11 12 whole body counting came into being, but of 13 course to monitor for iodine you need thyroid 14 counts anyway.

Anyway, they have, just a little hackground, reduced the 250 exotic radionuclides to they've narrowed it down to a potential left of 12 and of these 12, four are iodine.

19 So this is an important effort that 20 they're doing right now to determine if dose 21 reconstruction can be done during this period of 22 time because of the potential lack of iodine 23 monitoring.

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1 Anyway, maybe we'll have some more information on all of this by the July meeting 2 3 and maybe not. CHAIRMAN MELIUS: 4 Okay. 5 MEMBER ROESSLER: We'll have to see how it goes. 6 7 CHAIRMAN MELIUS: Yes. We'll certainly have an update for the July meeting, is 8 9 that fair? Yes, thank you and thank you, Yes. 10 Tim --11 DR. TAULBEE: Yes. 12 CHAIRMAN MELIUS: -- also. Okay. 13 Pacific Proving Grounds, Jim Lockey. 14 MEMBER LOCKEY: We met a couple months ago and we went through all the issues and I think 15 16 resolved those issues. We're just waiting for NIOSH to fill in some details, but I don't think 17 we have any outstanding issues at this point. 18 19 CHAIRMAN MELIUS: So the ball's back 20 in NIOSH's court? Okay. 21 MEMBER LOCKEY: Yes. 22 CHAIRMAN MELIUS: And you're going to 23 manage to solve this without a site visit?

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1 MEMBER LOCKEY: I'm qoinq there 2 personally, but if you're nice I'll invite you. CHAIRMAN MELIUS: 3 Pantex, Brad. That we've done a site visit on. 4 5 MEMBER CLAWSON: We've done a site Pantex is coming to a close, too. 6 visit there. 7 All we have is TBD issues. We still have one outstanding issue that NIOSH, in their court, and 8 that's the neutron/photon ratio. And I've talked 9 to Stu and Jim on that. 10 They're getting pretty close to being 11 12 able to deliver something on that. But it's kind 13 of a complicated site to be able to deal with on 14 But that's all we've got outstanding that. really. 15 Questions for Brad? 16 CHAIRMAN MELIUS: 17 Okay. Phil, are you on the line for Pinellas? Yes, I am. 18 MEMBER SCHOFIELD: 19 CHAIRMAN MELIUS: Go ahead. 20 MEMBER SCHOFIELD: Okay. Pinellas, 21 the one issue that's killing us and has been held 22 up for a couple years now is the tritide issue. 23 And we've come to resolution on whether they can

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1 do this or they can do a -- somehow they've got 2 to come up with the solution on this issue because this is the one issue that has been holding us up 3 closing out Pinellas. 4 CHAIRMAN MELIUS: I think we've heard 5 this before. 6 NTOSH --7 MEMBER SCHOFIELD: You have heard this before. 8 9 CHAIRMAN MELIUS: Yes. 10 MEMBER SCHOFIELD: We've been hearing this regularly. 11 12 CHAIRMAN MELIUS: NIOSH have any 13 comments? I think I mentioned this 14 DR. NETON: at the last meeting, but the outstanding issue 15 16 has to do with reconstruction of tritides. We're 17 reevaluating the methods that they use to see if they were adequate to reconstruct those doses. 18 19 I think it was taken over by events that got pushed back a little bit because other 20 21 sites took higher priority. It's the on 22 schedule. My recollection is it's sometime later this year, though --23

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1	CHAIRMAN MELIUS: Yes.
2	DR. NETON: for closure or
3	completion.
4	CHAIRMAN MELIUS: We'll remind you in
5	July.
6	MEMBER SCHOFIELD: You know what, one
7	quick question on that. Is there enough data you
8	have found yet that you could use coworker data
9	for some of those or not?
10	DR. NETON: It's not really a coworker
11	issue. It's there's a lot of smears, is my
12	recollection, of tritium contaminated areas.
13	It's just a matter of whether those smears are
14	valid for reconstructing doses because there was
15	indication that they had actually filtered the
16	smears.
17	And if there were tritides on there,
18	the tritides, presumably, would have been
19	filtered out of the solution that was analyzed.
20	And so until we can come to sort of firm
21	conclusion on what really happened there, it's
22	difficult to move forward.
23	CHAIRMAN MELIUS: So don't go away.

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1 Let me, then, ask if it turns out you don't have a dose reconstruction method, then that would 2 3 become an SEC? DR. NETON: There are other 4 5 alternatives. I can't remember exactly where --Okay. 6 CHAIRMAN MELIUS: -- we were going with 7 DR. NETON: that, but I think there are other alternatives 8 9 that may end up increasing the dose, but I think 10 it still may be boundable --11 CHAIRMAN MELIUS: Okay. 12 DR. NETON: -- but we're still working 13 on that. 14 CHAIRMAN MELIUS: Okay. 15 MEMBER SCHOFIELD: Okay. 16 CHAIRMAN MELIUS: Phil, keep going, 17 Portsmouth, Paducah, K-25. MEMBER SCHOFIELD: 18 Sorry, I put us back on hold again. K-25, we still have neutron 19 20 dose, how they're going to assign this. 21 Otherwise all the issues on K-25 have been closed 22 out. 23 Same thing with Portsmouth. They've

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basically, with the exception of neutron dose estimate, has been closed out. And those are the two that are holding up, Portsmouth and K-25. If we get the issue of Pinellas closed, a conference call, we should be able to close out all three, I would hope.

7 CHAIRMAN MELIUS: Okay. Good.
8 Thanks. Okay. Dave Kotelchuck, Rocky Flats.

MEMBER KOTELCHUCK: 9 Okay. We had a 10 good meeting last week, March 17th. It was our Working 11 first meeting of the since Group 12 September of '13. So we had four basic issues 13 that we resolved there, talked about and 14 resolved.

The first is there were concerns. 15 16 People raised concerns that some of the dose 17 reconstructions that were estimated by folks on site, some of the health physics people on site, 18 differed 19 from the reviews that dose 20 reconstructions that we were doing, that SCA and 21 NIOSH were doing.

22 So we discussed this and, basically, 23 the minimum detectable limits for equipment has,

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in fact, gone down. We're better able to
 characterize the exposures.

And so there are differences that are, put it this way, both SC&A and NIOSH agreed and the committee agreed that there was no inherent difference between the results.

7 The one thing is that NIOSH said that 8 they do not use any of the site analyses of dose. 9 They use the data that was collected, but our 10 resolution is based on NIOSH's analysis of the 11 exposure and concurred on by SC&A.

12 So the group decided that there was no 13 problem there and we proceeded going to the 14 second issue which was the magnesium-thorium 15 alloy at the Rocky Flats Plant, which has been 16 raised.

People in the Dow Madison plant reported that in 1979, I believe it was, they shipped magnesium-thorium plates to folks at Rocky Flats.

21 NIOSH looked for a long time for any 22 record of those deliveries in the plant and in 23 the records and has spent a long time doing that,

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looked at lots of different records that might
 reveal the presence of the magnesium-thorium
 alloy and could not find any.

4 SC&A followed up and did its own study 5 and looked at other sets of data and could find 6 nothing. Now, the time period when this was an 7 issue was in the 1970s that it might be used. 8 People in the 1970s will be covered by the SEC 9 that we have already approved for that.

10 So the Committee was faced with the 11 question should we continue to look that the 12 reports from Dow Madison are credible. That's 13 evidence that these were sent. On the other 14 hand, nothing in the record that we could look at 15 confirmed that.

16 So the decision was that since we 17 thought everybody in the SEC is covered, that is 18 to say most full-time employees in the plant were 19 covered, well, all of the full-time employees in 20 the plant were covered who worked the 250 days, 21 that it just seemed pointless to try to spend 22 many more months, really, to resolve this.

23

And so we agreed to stop the search.

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And we think that it would only affect, if there was magnesium-thorium alloy, it would only affect a small number of people for whom partial dose reconstructions were done, that is people who did not have cancers that were covered by the SEC.

And we, just as a practical matter, felt that it was not worth the time compared to working on some of the other issues that also are important for the folks at the plant. So that was the second.

11 The third item was neptunium-237 at 12 the Rocky Flats Plant after 1983. There were 13 reports given to us that there was neptunium work 14 that continued after '83.

15 NIOSH and ORAU looked into that and, 16 in fact, they did find evidence that there was 17 some work that -- there was a report from the 18 plant that between 1983 and 1987 some work was 19 done for apparently for a period of about a year 20 within one small group in the plant, roughly 21 half-a-dozen people.

22 So what we decided, give me just a 23 second, was that there was such and there was

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1 agreement on all sides that it was a small group 2 of people, but that the work was done after 1983. That is beyond the SEC period. And that was just 3 4 ___ I can add a little 5 MR. RUTHERFORD: bit of technical discussion --6 7 MEMBER KOTELCHUCK: Please --MR. RUTHERFORD: -- to that. 8 MEMBER KOTELCHUCK: -- do. 9 10 MR. RUTHERFORD: Actually, what we determined was there was a one campaign that they 11 12 produced roughly 200 grams after a year or 13 involved up to 200 grams over a year of neptunium-14 237. However, the product that neptunium-15 16 237 was in was actually overwhelmed by the 17 plutonium exposure. And everyone that was activity was on 18 involved in that plutonium 19 bioassay, so. 20 MEMBER KOTELCHUCK: Okay. Good. Last issue was the tritium issues at the 21 Thanks. 22 And, in particular, there was follow-up plant. 23 from finding out about and work that we found was

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useful for dose reconstruction in working with the materials that were sent in in boxes, but delivered to the plant that had tritium where there was tritium leakage into the crate.

5 And when the crate was opened up the 6 tritium was found. There were tritium bubblers 7 and other measurement devices now in place to try 8 and recover those. And that is going to be part 9 of any dose reconstruction that are done in the 10 future.

11 So those issues were resolved. There 12 are two major issues that are outstanding. One, 13 and let me just get my notes here, one was a 14 report from NIOSH on data falsification.

We have tried to get information from the FBI, the records that the FBI had gathered up. They have yet to release them and maybe since last week we have some more information? MR. RUTHERFORD: Actually, we did

finally get release of the documents from the FBI. However, there were a group of documents that we thought the FBI was responsible for releasing them all, however, the FBI came back

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and said, hey, we're going to release these eight
 documents.

And which they did, but they passed on the other documents to the other agencies, which was EPA -- and these are kind of documents that, you know, we're not sure yet, if EPA's general counsel's going to get involved or, you know, who else will get involved in this.

But we're going back to those other 9 There's a couple of daily documents 10 agencies. that we have to get released. 11 You know, I 12 anticipate these will be easier to get released, 13 you know, but, you know, I'm an optimist, so I'm 14 not going to be for sure. But those are the only things holding up the report and we anticipate 15 16 we'll be able to get the report out guickly as soon as those documents are released. 17

MEMBER KOTELCHUCK: Right. Hopefully, we'll be able to meet about those in early June. There is a second document for the work on the critical mass lab were assemblies were taken to the criticality level, people work

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23 there --

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1	MEMBER BEACH: Mic.
2	MEMBER KOTELCHUCK: and oh.
3	CHAIRMAN MELIUS: Just keep the mic
4	in your hands.
5	MEMBER KOTELCHUCK: Sorry. People
6	work there and NIOSH is interviewing workers who
7	are there and we'll find out more about the
8	history of that particular lab and NIOSH will
9	also give us a report.
10	So we have two NIOSH reports coming
11	up. We hope they might be able to have them by
12	June and we'll meet at June and I would be we
13	would feel very good if we could finish our task
14	by the July meeting. But we'll await the reports
15	and discussion about them. That's it.
16	CHAIRMAN MELIUS: Now, being
17	aggressively optimistic
18	MEMBER KOTELCHUCK: Yes.
19	CHAIRMAN MELIUS: I think, to that.
20	Thank you for further update. But it's been a
21	while, so it's good to get that detail. Any
22	questions for Dave? Okay. Dr. Lemen, are you
23	on the line? We have the Sandia Work Group?
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1	MEMBER LEMEN: He is on the line, but
2	he doesn't have anything to report.
3	CHAIRMAN MELIUS: Okay. LaVon?
4	MR. RUTHERFORD: Actually, I'll give
5	you Dr. Glover for that.
б	MR. HINNEFELD: Glover, even then?
7	MEMBER CLAWSON: He's putting his
8	coat on. That's not good.
9	DR. GLOVER: Well
10	MEMBER CLAWSON: It's lined.
11	CHAIRMAN MELIUS: Well, folks
12	thank you, Mr. Rutherford.
13	DR. GLOVER: Yes, thank you very much.
14	He made me come saying you've got to come down
15	for this. And I do apologize, Dr. Lemen, I
16	should have sent you an update. We've been
17	trying to get the Hanford stuff caught up and so
18	I did overlook that.
19	Sandia, we had an extensive data
20	capture out there in October of last year and it
21	was being very large, required a substantial
22	effort on the part of the site to clear that.
23	That documentation is mostly in house and still

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1 a little bit left to go.

2 Essentially, the issue comes down to, we had an SEC through 1994 at the site. 3 And so that looking at the site 4 post we're had 5 identified some workers who should have had 6 bioassay.

7 They had some memos in place and so those didn't seem to happen. But they also had 8 9 a BZ sampling program that they started. And so we're sort of looking at the issue of who was 10 assigned, who should have been monitored and the 11 12 implementation of this Breathing Zone Sampling 13 Program and how that applies to worker dose and 14 how that was.

15 So that's where we are right now. And 16 we're trying to get the rest of the records in 17 and we'll pursue that.

18 CHAIRMAN MELIUS: Okay. Thank you,
19 Dr. Glover, yes, for that. Okay. Phil, Santa
20 Susana.

21 MEMBER SCHOFIELD: We're still 22 waiting on the revisions for the internal and 23 external coworker studies based on coworker

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1 studies. I know a lot of those exposure cards had to be manually entered, which they have done. 2 We have a number of outstanding other 3 issues and one of them that has particularly --4 voices concern among some of the claimants is the 5 fact that we did have people go back and forth 6 7 from Canoga and the De Soto facilities in and out of Area IV as to some of them might have been 8 assigned safety Canoga, but they quite often go 9 up the hill to do work in Area IV. 10 So that's going to be another large 11 12 issue which is how we're going to shake that one 13 out, I'm not sure at this point. Lara Hughes is 14 the one who is working on those revisions and to be honest with you, I don't know where that sets 15 16 at this time. 17 CHAIRMAN MELIUS: Yes. Jim Neton's 18 going to answer that. Well, the coworker study 19 DR. NETON: is virtually complete and there are some issues 20 21 with which workers were monitored at which sites

and the database and especially in the early

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23 years.

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1 But the larger issue here is the 2 implementation quide. I mean, I'm reluctant to issue this under the old, sort of, methodology 3 and then only to have it be reviewed and saying, 4 well, it's deficient in these following areas 5 because we know that that's where we're heading. 6 7 So I think we're going to, you know, I know we're going to wait until July to approve 8 the impact, but my gut feeling is that we're going 9 to probably start moving forward with what we've 10 flushed out here so far in Rev 4.1 thinking that 11 12 it's going to be substantially the same. I don't 13 want to wait, you know, multiple months to start 14 revising this document.

15 CHAIRMAN MELIUS: Yes, I think we 16 talked a little bit about this at the Work Group 17 call on the document and clearly, I think as I've 18 mentioned, this has implications, Savannah River, 19 among others to do. And my sense is that things 20 are largely decided.

There was one issue that came up that, for example, it's going to make some difference in terms of redoing some of the Savannah River.

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Tim mentioned that as a calculation issue mainly
 and I think resolvable.

We just weren't sort of able to get it resolved completely at the meeting we have. It's sort of a separate issue from the guidelines. But I would think, you know, go forward.

7 I mean, I think again it's going to come down to what are the facts related in the 8 individual situation. And I think what would be 9 important if you're sort of in midstream enough 10 is making sure that in the report, on whatever 11 12 documentation's put together for the coworker model is that it addresses the issues that are 13 14 brought up so the Board or the Work Group, whoever's involved can evaluate those issues. 15

Now, I think that's the part we're really working on now, more than the overall guidance. Yes.

19 DR. NETON: Good to hear.

20 CHAIRMAN MELIUS: Yes.

DR. NETON: Yes, I think, for example, it's we can move forward with the one person, one sample. I think we're in general agreement on -

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1 2 CHAIRMAN MELIUS: Yes. 3 DR. NETON: -- that concept, the 4 backwards integration version anyways. I think some of the vetting that is 5 prescribed in the IMP guide --6 7 CHAIRMAN MELIUS: Yes. DR. NETON: -- would be sort of easy 8 9 to do. 10 CHAIRMAN MELIUS: Yes. 11 DR. NETON: I mean, not easy to do, 12 but I mean it's easy to understand why we would 13 do that anyways --14 CHAIRMAN MELIUS: Right, yes. 15 DR. NETON: -- which is good things 16 to do. The remaining issue, I think, is this treatment of data below the detection limit and 17 decision level that --18 19 CHAIRMAN MELIUS: Yes. DR. NETON: -- we had a discussion on 20 21 March 10th. 22 CHAIRMAN MELIUS: Yes. 23 So, you know, those are DR. NETON: **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 simple things to fix, though. I mean --2 CHAIRMAN MELIUS: Yes. 3 DR. NETON: the _ _ once we qet database structure, it's a matter replacing 4 So I think we can move forward without 5 value. creating a lot of extra work if some of those 6 7 other details --8 CHAIRMAN MELIUS: Okay. 9 DR. NETON: -- change. 10 CHAIRMAN MELIUS: I mean, we're going to talk a little bit. Oh, we have Work Group 11 12 issues that we have to address the SEC Evaluation 13 Work Group. 14 And for example, on some of those 15 issues if it would help to have a Work Group call 16 to sort of get a final resolution so you can go forward on those, we can do that. We also have 17 a Dow Madison issue to deal with. 18 And John 19 Stiver informs me that we're very, very, very, 20 very close to getting that report out. And --21 Actually, I just got an MR. STIVER: 22 email from Nancy --23 CHAIRMAN MELIUS: Yes.

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MR. STIVER: -- and it had fallen
 through the cracks while she was sick last week
 and she's getting it out right now.
 CHAIRMAN MELIUS: Okay. Yes, I'll --

MR. KATZ: 5 Repeat that into the mic. 6 CHAIRMAN MELIUS: Yes, repeat that 7 for John Stiver which was that the reports in the mail and it will be out immediately. So we have 8 And I think in terms of timing, I think 9 that. talk more offline 10 should in terms of we scheduling. 11

12 Again, the other thing I will say to 13 that is we also, you know, if there's some 14 question or if something that come up, but we also are going to pick out an example to do for 15 16 the Work Group to work on the guidelines. So that may be another opportunity so we don't get 17 off schedule doing this. 18

19All right.So, went a little far20afield from Santa Susana there, but --

21 MEMBER SCHOFIELD: Well, we went from 22 Santa Susana to Dow Madison and I don't know where 23 all else we're going, but it'll be interesting.

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1 CHAIRMAN MELIUS: We went from Rocky 2 Flats to Dow Madison, too, so we'll do that. Brad, Savannah River. Appointed Brad to 3 Okav. be the chair of the Savannah River site group and 4 added David Richardson to that Work Group. 5 So Brad, I don't think you've had time to meet and 6 7 _ _

8 MEMBER CLAWSON: We have not met, but 9 we have been on this Work Group for a long time. 10 And it comes back to one of our issues and that's 11 getting information from the site. And we've 12 kind of been at a standstill for that for almost 13 a year. So that's becoming an issue.

14 CHAIRMAN MELIUS: Yes. I think if I 15 understand it correctly, in the process now, 16 we're closer after a year. I don't want to be 17 too optimistic here, but --

DR. TAULBEE: Brad is correct. We've been delayed in getting information out of this site from our November and December 2013 data captures. The good news is is that information did finally get delivered to us in February.

However, it has not been reviewed from

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a classification standpoint and so the current 1 2 staff with the appropriate credentials are working it within a confined space, if you will. 3 And so the review is going to be 4 slower than we would if the bolus all this of 5 information had been released. 6 And so we are 7 able to begin to make some progress now as of last month. But it did take until last month for 8 us to get that information. 9 10 CHAIRMAN MELIUS: Okay. So who's reviewing 11 MEMBER CLAWSON: 12 that then? Is it DOE then, that's reviewing it 13 or Germantown? 14 DR. TAULBEE: The information was sent up to Oak Ridge and so my ORAU team lead, 15 16 Mike Mahathy, is the one who has access to it. 17 And so he has to go into a secured area, limited area, in order to work with it. 18 19 I do believe, in talking with Greg Lewis, that a copy of those disks of information 20 21 that got send to Oak Ridge are also going to be 22 sent to Germantown so that both SC&A and any of

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23 the Board Members, as well, can go in and review

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1 that information as well.

2	CHAIRMAN MELIUS: So, I would also
3	add, and we've talked about this and the SEC Work
4	Group is the coworker guidelines may affect the,
5	and probably will affect, some of the coworker
6	models at Savannah River.
7	And so that's another issue that's
8	going to, I think, take some time to resolve.
9	And I think NIOSH needs to sort of look at that
10	and sort of figure out, you know, what do you do.
11	I mean, is the data, for example, for
12	construction workers adequate by itself for a
13	coworker model?
14	And there are more than one coworker
15	models there, but understand it correctly. And
16	so that's another part that needs to be taken
17	into account and some decisions made on what to
18	do there and so forth. Okay. So, I don't know,
19	Tim, if you have any more to add to that or
20	no. Yes, not required, but you're welcome.
21	DR. TAULBEE: You're absolutely
22	right,
23	CHAIRMAN MELIUS: Yes.

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1 DR. TAULBEE: -- Dr. Melius, with regard to the coworker models. Because we'd have 2 to go back and redo our OTIB-81 which has coworker 3 models for tritium, plutonium, uranium, mixed 4 fission products as well as americium, curium, 5 californium and thorium. 6 7 So it's a very large undertaking which is why we've been eager for the coworker IMP guide 8 to come out. 9 10 CHAIRMAN MELIUS: Yes. I can tell you when we had the SEC, the coworker, the SEC 11 12 Evaluation Work Group, Tim was pushing us along to reach some decisions. 13 David Richardson, I 14 don't know, are you on the line, now? I haven't heard David for a while. 15 16 MEMBER RICHARDSON: Yes. 17 CHAIRMAN MELIUS: Oh, good. Science 18 Issues Work Group? 19 MEMBER RICHARDSON: We are at а standstill as well. 20 And I'm starting to suspect 21 that when we express interest in our report that 22 it gets frozen. So we have two reports that 23 we've been kind of waiting to evaluate, one's an

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ORAU report from NIOSH and the other one's an
 NCRP report on DDREF.

And they've both sort of 3 been in standstill for, well, first one and now 4 the second one, for a period of time. 5 I'm hopeful that the second report will come out soon and we 6 can take some action on it. 7 But we've asked for a preview of that and not been able to get it, so 8 we're sort of waiting. 9

10 CHAIRMAN MELIUS: Okay. Thanks, I'm not sure much we can do about that, 11 Dave. 12 right? I think, Special Exposure Cohort Issues 13 Work Group, I think you've heard we've been working on the issue with the coworker model and 14 then we have this Dow Madison issue outstanding. 15

16 We had a third one which was the Savannah River Group had asked us to look at one 17 of the coworker models, but I think that's sort 18 19 of back to the drawing board as Tim said it right now, in terms of what needs to be done. 20 So we're 21 basically not doing that for a while under that. 22 So, but we'll probably have a meeting We need to deal with the Dow Madison 23 shortly.

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issue and then we also need to come back. Maybe
 these are separate meetings as to look at an
 example coworker model in terms of applying the
 guidelines to that.

So hopefully we'll do both of those 5 before the July meeting, so definitely the Dow 6 7 Madison one we will. So for other Work Group Members, put on your calendars to at least plan 8 Since we're alphabetical, we'll jump 9 to those. to the Subcommittee on Procedures Review, Wanda. 10 11 MEMBER MUNN: I trust that everyone's 12 done their homework and had therefore read the 13 basic information that was available to you in 14 the SC&A Work Group and Subcommittee's report. If you have not seen that, it's on Page 13 where 15 16 the Procedures Reviews Subcommittee's reported as having met on February 19th, which indeed we did. 17

At that time we closed a little more 18 19 than а dozen individual findings that were outstanding and on which we had had deliberations 20 21 earlier, came to some conclusions with respect to 22 those dozen or so. And we were very pleased to get the plate. 23

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1 Right now, we are, as you know, 2 working a number of PERs. 3 MEMBER BEACH: Press the button. MEMBER MUNN: I was doing it, 4 my fingers just slipped off. 5 We have in our hopper right now, PER-6 7 31, which is Y-12, PER-42, Linde, PER-43 which is the internal/external organs with the 8 IREP selection of ICD-9 codes, PER-47, Grand Junction 9 10 Office, PER-52, Westinghouse Nuclear Fuels Division. 11 12 We also have outstanding issues of 13 long time period on OTIB-52 -- I mean, pardon me, we cleared 52, OTIB-82, CNLLL and OTIB-54 which 14 is internal gross beta and gamma analyses. 15 The 16 upcoming PERs that we know are in the mix and for our 17 coming toward us is PERs TBD-6000 revision, BWXT Virginia and Dow Chemical. 18 19 just received the SC&A review We 20 comments from NIOSH's response to PER-45, 21 Aliquippa Forge. And our big issue there has 22 been concentration of airborne contaminates. 23 We'll be addressing that at our next

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1 meeting which I had hoped for in May, but I got 2 beaten up when I suggested that, so it looks as though it will probably be June before we meet 3 That date has not been identified yet. 4 aqain. And that's it for Procedures. 5 CHAIRMAN MELIUS: Wanda, we wouldn't 6 7 dare to try to stand in your way. MEMBER BEACH: Wanda, don't we have a 8 meeting scheduled in April --9 10 CHAIRMAN MELIUS: We do, yes. MEMBER BEACH: It's like the 28th? 11 12 MEMBER MUNN: Yes, we're on the 13 calendar for the 28th of April. Yes. 14 CHAIRMAN MELIUS: Okay. Thank you, Wanda. 15 16 MEMBER MUNN: Yes. 17 CHAIRMAN MELIUS: Paul, TBD-6000?? Yes, TBD-6000, I'll MEMBER ZIEMER: 18 19 focus mainly today on General Steel Industries. Just to remind the Board that Appendix BB, which 20 21 is the General Steel Industries appendix. 22 Rev 1 was issued in June of 2014 and 23 after that there were a number of concerns raised

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by the co-petitioner, Dan McKeel, as well as a
 number of findings from the Board's contractor,
 SC&A, on the revision. And the Work Group met
 in February to try to deal with those issues.

5 We thought, following that meeting, 6 that -- well, let me just say that at that meeting 7 of the ten findings that SC&A had, six of those 8 were resolved, but there were four others that we 9 were not able to resolve. And NIOSH was to come 10 back with some additional information to try to 11 resolve those.

We thought at the time that that would be done very quickly. But in a short time after that meeting, specifically on February 20th, Jim Neton notified the Work Group Members that NIOSH would need more time. In fact, let me, just for the record, read Jim's brief report to the Work Group.

He said, "After the GSI Work Group meeting on February 5th, DCAS reviewed the path forward to resolving the ten findings SC&A raised in their review of Rev 1, Appendix BB.

23 While we believe that the resolution

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of six of the findings is straightforward, the remaining four findings, Numbers 2, 5, 6 and 10 may require more time to address than previously thought.

opinion, the 5 In additional our discussion of these findings will 6 likelv be 7 required prior to the issuance of Rev 2. In light of this, we've decided to move forward with 8 9 the completion of PER-057.

10 The PER will use Revision 1 of 11 Appendix BB to determine which cases should be 12 returned by DOL to NIOSH for a revised dose 13 reconstruction.

After Appendix BB, Rev 2 is issued, it is likely there will be an additional PER for claims affected by the changes between Rev 1 and Rev 2."

And I might add parenthetically that 18 19 when we began the reviews of Rev 1, the PER 20 process had been, Ι guess Ι would say, 21 temporarily halted pending the resolution of the 22 Rev 1 findings.

But in light of the extended period

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needed the PER was completed. And that PER was
 issued just very recently on the 11th of March.
 And I would just like to read a couple of items
 for the Board's benefit here.

5 The document says, "So the changes to Appendix BB were so extensive that no claims 6 7 could be eliminated from further evaluation. Therefore, all previously completed claims were 8 reevaluated 9 under this Program Evaluation 10 Report."

Now, what that means is that there 11 12 were close to, and this is all claims that were 13 below the 50 percent value, of course. So it 14 turns out then that there were a total of 196 claims that were reevaluated by NIOSH. 15 And of 16 these there were 100 that appears would probably 17 move to a greater than 50 percent value, which means that NIOSH would ask DOL to send those 18 claims back for reevaluation. 19

20 Stu Hinnefeld has informed me that, in 21 fact, that list of 196 claims has already been 22 sent to DOL, including the list of 100 that should 23 be returned to NIOSH for reevaluation.

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1 So that has occurred in the meantime, 2 just very recently, I don't know the exact date, 3 but since this PER was issued. Maybe Jim can speak --4 5 DR. NETON: Actually, the --6 MEMBER ZIEMER: -- to that. 7 DR. NETON: -- request was sent to DOL the same day that the PER was issued. 8 9 Right. MEMBER ZIEMER: So the 10 request went to DOL on the 11th of --11 DR. NETON: Yes. 12 MEMBER ZIEMER: -- March. And they 13 have that list. So the ball now is in DOL's court to return what appear to be the 100 eligible 14 ones and then those would be reevaluated by 15 16 NIOSH. So that's where we stand on GSI at the 17 Once the Rev 1 issues that NIOSH will 18 moment. 19 be addressing, once that has occurred the Work Group will meet again. And, of course, SC&A will 20 21 have a chance to look at those things too, but 22 we'll try to get those final ones resolved. And 23 that could lead to a revision, Rev 2.

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CHAIRMAN MELIUS: Okay. Thank you, Comments or questions from Board Members? Paul. Thank you. I'm going to overrule our Okay. Designated Federal Official and give the Board and people here a short break. So we will take a break and return at 3 o'clock this afternoon. MEMBER BEACH: You forgot Worker Outreach. CHAIRMAN MELIUS: No, there are other Work Group -- I --MEMBER BEACH: Oh, we're doing them right before we finish. Okay. (Simultaneous speaking.) CHAIRMAN MELIUS: Relax. Relax. know I skipped over Henry also. MEMBER ANDERSON: Yes. CHAIRMAN MELIUS: Yes, so and there's

19 MEMBER BEACH: I thought we were at the end. 20

21 CHAIRMAN MELIUS: Tomorrow we have another Work Group, you know, session and working 22 23 session and we will cover the rest of the --

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1 MEMBER BEACH: Okay. 2 CHAIRMAN MELIUS: -- groups and we'll also talk about the Reconstruction 3 Dose Subcommittee, hear from Dave. So we have other 4 5 work. We have letters and stuff, so. 6 MEMBER BEACH: A breaks good. 7 CHAIRMAN MELIUS: Okay. That's what comes of power 8 MR. KATZ: There's confusion and chaos. 9 grabs. CHAIRMAN MELIUS: So we will take a 10 break. We will reconvene at 3 o'clock and at 11 12 that point we will do the Hanford SEC Evaluation 13 Report and then we'll go right into a public 14 comment period. 15 (Whereupon, the above-entitled matter 16 went off the record at 2:44 p.m. and resumed at 17 3:05 p.m.) 18 CHAIRMAN MELIUS: Okav. We are 19 reconvening and our first order of business is the Hanford SEC petition. 20 And we will do a 21 presentation on that, we will then have some Board discussion on that, could very well have a 22 vote on that petition and we will proceed there. 23 **NEAL R. GROSS**

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And then, when we are done with that portion of that, I'm not quite sure how long that will take, it'll take a little while, then we will go directly into the public comment period for people.

And when we do the public comment period, we'll start with public comments related to the Hanford site and then there may be people calling in that have comments on other sites, so we'll leave them until last.

Again, encouraging you, if you've already and want to make public comments to sign in. It just helps us do that. Even if you don't sign in, we'll give you an opportunity to talk, but it just helps us keep track of what's going on and so forth with that.

17 So we'll start with the presentation. 18 The presentation will be Dr. Sam Glover from 19 NIOSH and welcome Sam.

20 MR. KATZ: And just for the record, 21 the two Board Members, Ms. Munn and Ms. Beach, 22 who have conflicts here, have recused themselves 23 from this session.

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DR. GLOVER: Thank you, Dr. Melius. Is this one of those microphones you've got to be really close to? Probably, we're okay. So first, I'd kind of like to start out by thanking some folks who made this -- Pat Worthington talked early about all the effort.

7 Department of Energy, they certainly 8 provide an incredible amount of support, but also 9 the Board has been with us at many of these 87 10 data capture events. Not all of those were 11 Hanford, but there were a lot.

12 And obviously, there's a substantial 13 body that's not a very complex facility, a lot of 14 different changes over time. A lot of work was 15 required to understand it.

But also the workers there, you know, I don't know if Pat included there are well over 100 worker interview sessions that we've done and that the site is supported, but these people have come in to provide us information. So we've done an extensive data gathering as we did this.

22 And I am going to start out by driving 23 my plain language people crazy by starting out at

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the very end which is how I intended to do this and talk about the Class Definition and then I'll explain why we did it.

Because it is, as Dr. Melius at our 4 5 Work Group meeting talked about, it is very It's really not. When I've talked 6 convoluted. the workers at Hanford who work in this 7 to environment, it makes complete sense because they 8 understand how things are broken down. 9 But when you come at it from the outside, it's a Class 10 Definition by difference. 11

12 And so what we're going to recommend 13 to you is that all employees of the Department of 14 Energy contractors and subcontractors. Now, you'll notice we're not including in 15 that 16 Definition the Department of Energy employees themselves. 17

So we're talking about the contractors and subcontractors and we're excluding, so all those are in excluding certain primes in this timeframe.

And so that's really the point that I wanted to leave, is, sort of, the main other

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1 primes that weren't associated with the 2 construction trades, in particular, I'm told the Davis-Bacon-type construction work that happens 3 DOE facility that is particularly 4 at а а

6 So I wanted to kind of start out with 7 this. As we look into this and walk through why 8 I go through these slides.

radiological characteristic.

9 CHAIRMAN MELIUS: The David-Bacon 10 Federal wage requirements. It's nothing to do 11 with radiological.

DR. GLOVER: Well, but that kind of work is what J.A. Jones had to do.

And that was the kind of radiological construction work that had to be done by them. And so apparently that is partially defined and so there's people who understand it better than I, but, so now I'm going to go back and start at the beginning.

20 So we are talking about the Hanford 21 site and this, as I had mentioned, it's a complex 22 site. It's got many diverse facilities and not 23 only are they diverse, they changed their mission

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with time. And not only did they change their
 mission with time, they change the contractor who
 ran them as a function of time.

And so every time there's a contract change, all those people in management and all those reports change. So there are 7,000 different monthly report types at Hanford over the period of this.

9 So it's, you know, just following the 10 thread, it stops and then you start again and go 11 down a different path to try to find out how 12 things are going.

13 So as I said, there are significant 14 research challenges due to the nature of the large number of classified 15 site, а and 16 unclassified documents. I think my colleague 17 here, Gail Splett, could tell me exactly how many boxes there are, but I'm sure it's that are in 18 the hundreds of thousands. 19

20 So we have worked to address this. 21 And it's difficult and we say that we try to be 22 timely, it's a large body of work and so it takes 23 time to do it. We have not, you know, we really

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have tried to do this in a timely fashion.

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2 So SEC-57 comprises the overarching 3 structure of which we continue to review. And 4 the Board still has, even after the closure of 5 this SEC-57, still has an issues matrix that will 6 be for it. And the timeframe for SEC-57 is from 7 1943 through 1990.

So series of 8 there are а SEC evaluations that have been completed for Hanford. 9 We had two of those, the first SEC-57 Part 1 and 10 2, which were for the DuPont timeframe from '43 11 12 to '46 and then '46 through '68 which was mostly 13 the GE timeframe. And those were for selected radionuclides in the areas. 14

As we understood better with time, we 15 16 realize that we subsumed those two classes under SEC Petition 152 and added a few more years based 17 additional research in 18 on some other 19 radionuclides. So it brought all of those under and made it all workers for all areas, which had 20 previously been a little more tightly delineated. 21 22 Additional research brought us up to where we are right now, which is adding 1972 23

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for all 1 through 1983 areas that Hanford 2 associated with, again, different types of radionuclides and research that was being done at 3 the time. 4

5 And I guess I can't turn my head and 6 talk. I tried. I think it's actually going to 7 hit the microphone.

So there was one Class that was not 8 9 added to the SEC. It was based on falsification 10 of records. And they were non-radiological records that were falsified, but that did not 11 12 impact the ability to do the radiation research at Hanford, the radiological dose reconstruction 13 14 at Hanford. And that was SEC-155.

15 So as I said, SEC-57 remains open 16 before the Advisory Board and the issues matrix 17 continues to be addressed.

So during the review of this matrix we 18 19 began come to across some memos and correspondence and began looking at the exposure 20 21 records for a particular group of workers that 22 we're discussing today.

23 The documents and correspondence

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detailed that these employees were not routinely bioassay monitored. Essentially, what we had was they were, in some cases, doing pre-job, but there was no follow-up bioassay after the job had been completed.

So, as I say here, NIOSH recommends 6 7 that a Class be added to the SEC. So workers claims are processed while the remaining 1984 8 through '90 Hanford issues are addressed with the 9 10 Advisory Board. The latest Hanford petition, SEC-226, was qualified for evaluation on March 11 12 13th, 2015 as an 83.14.

So our worker findings include -- so 13 14 just a little background. DOE operated Hanford using many prime contractors, each that have many 15 16 subcontractors. So each of these prime 17 contractors responsible for implementing а radiological control program including how and if 18 19 an individual should be monitored. The construction support services was conducted under 20 21 a separate contractor.

22 Now, I'm not saying that a prime 23 contractor couldn't have some construction

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people, but there are certain types of work that had to be subbed out to the main radiological support contractor like J.A. Jones. And that was included the radiological construction work.

5 So as I mentioned here in the next 6 slide, J.A. Jones Construction Services was this 7 prime contractor of construction from 1953 8 through February 28th, 1987 and they maintained 9 their own radiological control program.

10 And when I say that, they decided who 11 were monitored and often, they would, as people 12 worked in these facilities, they would rely on 13 the health physics guys in those facilities to 14 help support their people.

But they had in office, they decided how they were monitored and they couldn't tell them what they had to do. They couldn't say this is the people. J.A. Jones had to put them on a bioassay program. It wouldn't be Rockwell even if they were working in a Rockwell facility.

21 So after '87, Kaiser Engineer Hanford. 22 There was a transition period of a few months and 23 you'll see that in the graphs. Since those were

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annual sum values, you'll see a transition that
 occurs.

Beginning about December of '86 they 3 began to transition as the prime contractor for 4 construction services, with full transfer, we 5 believe, on March 1st, 1987. 6 And they also 7 maintained their own radiological control 8 program.

9 It's amazing the trees are starting to 10 bloom here and the allergies. They're not ready 11 in Cincinnati, so sorry for the sniffles.

What also became evident as we really began to look at the type of the work, and this is almost like a primer for Dr. Neton's, you know, review of coworker data, is that the type of work in these programs is fundamentally different than what was going on at the other places.

18 So they support a broad range of 19 Hanford activities, including the research, the 20 fuel handling, the plutonium processing, D&D, and 21 they also supported the reactor outages.

They were the guys getting to, you know, used up all their dose maybe in a day for

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that week and then they'd come back the next week
 and support that 100-N reactor outage.

They worked in high airborne, high contamination areas. In areas that you would expect somebody to have bioassay follow-up when you're in full face or, you know, that respirator protection may have been provided.

8 These included the 100-N area, the 9 PUREX fuel reprocessing facilities, research 10 facilities, plutonium finishing plant as well as 11 vaults.

So a review of the J.A. Jones, and you'll see JAJ and KEH operating procedures found the detailed external dosimetry practices, there's very little if no information regarding what the bioassay program, to support that would be.

As I mentioned before the work in 18 19 fundamental radiological control practices were very different than the work conducted by other 20 21 prime contractors. Monitoring data for internal 22 dose available from these other prime are 23 contractors to compare.

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I will mention that J.A. Jones and Kaiser have a small group of permanent employees, but essentially, they supplemented those on kind of an as-needed basis. And so you'll see about 3,000 workers per year, most of those were not their permanent J.A. Jones.

7 They may be listed in the databases. 8 It can be very confusing on if they're truly J.A. 9 Jones or if they're subs, but you can actually 10 de-convolute that to some degree.

11 So subcontractors are difficult for 12 the DOE to determine if they worked in the 13 capacity of construction trades, it's often hard. 14 What does that title mean?

exact title would you 15 What title 16 construction trade workers who are out there? 17 Because they also got people doing pre-job planning and all these different -- I was quickly 18 19 disabused of the concept of I would just name a bunch of titles that this would comprise. 20 And also importantly, which company is responsible 21 22 for the worker dosimetry?

23 So as we looked at this, these

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subcontractors, they may not only support J.A.
Jones, if we were to say, well, this company
should be excluded, oh, that company, you know,
because they may have supported Rockwell also and
then they in support of J.A. Jones. And this
network of -- it made it very difficult.

And there are 60,000 subcontractors in 7 this timeframe and there are 300,000 overall at 8 the site. My colleagues have over 400,000 9 records on their desks right now that they're 10 trying to get databased and provide additional 11 12 information on record or employment. So it's 13 extremely complex.

14 So NIOSH, in consultation with DOL and 15 DOE found that we couldn't just limit the Class 16 to J.A. Jones and Kaiser and say and their subs. 17 It just wasn't going to happen.

So we wrote a Class by difference and we identified that there are excellent records that are associated with these other prime contractors. They know who the real honest to goodness prime contractor employees are.

23 And we're saying that at this time we

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1 know there's a deficiency for our program, for 2 our purposes of how we do dose reconstruction 3 that we can't do it for the J.A. Jones people and 4 the Kaiser people, but we aren't able to state 5 that for these other primes.

6 So at this time we think it's useful 7 to move forward on these 700-plus dose 8 reconstructions while we work out the rest of the 9 details with the Work Group.

This, 10 as my colleague, Gail, has helped me understand there's Hanford's, 11 thev 12 expand and the contract. So you'll see my graph 13 or my graphic and it shows that the DOE helped me 14 and provided. It gets nine or ten and then it comes back to one with Westinghouse. 15

And so in '87 Westinghouse subsumed 16 17 many of these, but there were a couple that still, and Kaiser still was on the side. And then in 18 19 '93 they subsumed all of them. And I think now, they've re-expanded. 20 So again, it's always 21 expand and come back to one and it makes it 22 difficult.

So this is the graphic. And this is

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just a portion in this timeframe of the
 contractors. This is actually a much bigger
 graph.

What I've done is I've circled in red J.A. Jones and Kaiser. So those are the people and you can see the times better on your screen or on the paperwork. It's difficult to see this on screen here.

In blue, I've circled the primes. 9 So 10 and most of them stopped in '87 when Westinghouse subsumed most of those activities. Now, in the 11 12 left-hand corner you've got Battelle PNNL. And 13 they continue through '95. And actually that's 14 when PNNL separates, but in this timeframe from '84 through '90, Battelle is excluded for further 15 16 work.

thing would be for 17 Same Rockwell '87, United 18 through Nuclear through '87, 19 Westinghouse, which then becomes а biqqer Westinghouse after '87, so, but since they're 20 21 Westinghouse for the entire timeframe.

22 Boeing Computer Services, they're 23 also another identified prime, and then, Hanford

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Environmental Health Foundation for that entire
 timeframe. So next slide.

3 So bases for our finding. NIOSH found 4 a virtual absence of monitoring for J.A. Jones 5 employees for the internal dose period January 1, 6 '84 through 2/28 of '87. I have some graphs that 7 I'm going to show you.

So Kaiser took over, as I mentioned. 8 9 They recognized the limitation from the bioassay program that had been conducted and they said 10 they were going to substantially increase that. 11 month, essentially, 12 However, the next they 13 realized that they had substantial budget 14 shortfalls and so it was delayed.

So in order to evaluate that, 15 we 16 decided well, let's look at how it. was How did these bioassay monitoring, 17 implemented. When did this become like how did it increase? 18 19 they look like other primes? And not just the total number, but are the chest counts the same? 20 21 Are there right kinds of bioassay being done? So 22 let's take a look at those things.

23

And essentially, what we came to the

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1 conclusion is that by 1990 those numbers seemed 2 to support, at that point-in-time, they are doing 3 what the other primes are doing. So that period 4 would still be before the Board, but we're saying 5 up until that time, it's not.

And so I kind of stole the graphics from our SEC Evaluation Report and I combined them so you could see the transition as the J.A. Jones on the left begins to fall off and you see Kaiser coming up.

What you can tell very rapidly from this graphic is that there are virtually no bioassay records for J.A. Jones in those years that we're looking at here. There simply isn't. Now, you do see that Kaiser had a higher rate of bioassay and so you see that they're definitely coming up and doing more.

19 So we then focused on that and looked 20 at in vitro bioassay, so urinalysis program data. 21 And it really takes through the end of '90. So 22 these are that 1990 data point is '90 up through 23 December 31st, 1990. That's the whole year.

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Let's take a look at the next graph.

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1 So until that point, really they 2 hadn't come up to speed of what the other primes 3 were doing. So that's why we've set this Class 4 to go through the end of 1990. At that point we 5 would be looking at how that works and how that 6 goes with the rest of the Working Group.

7 And at this point, we believe until that's fully up-to-speed, one year of 8 doing 9 bioassay does not make a bioassay program. There's people who fall off. 10 So in the totality of things, it takes until that point to really 11 12 come up to what the other programs are doing.

13 So J.A. Jones and Kaiser employees, 14 all subcontractors, we recommend that they be included in this recommended Class. And for 15 16 those individuals, and part of the reason why I wrote -- I wrote this, why we wrote this with the 17 input from a lot of people was that there's a 18 19 difference between partial and full dose reconstructions. 20

21 And so if I would have included them 22 and then said, well, I'm going to, you know, 23 extract them, we didn't include them in the Class

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that we would say that we could do full dose reconstructions for the DOE employees and these others until a decision is made.

4 So we will use any internal dose data 5 that those people, personal data they have to do 6 dose reconstruction. NIOSH will use external and 7 medical dose to complete those partial dose 8 reconstructions for the Class that we've named.

9 Now, we will do full dose 10 reconstructions for the DOE employees and all the 11 specifically identified primes that were excluded 12 from the Class.

NIOSH and the Advisory Board will continue to evaluate the remaining issues at Hanford during the 1984 through 1990 time period.

16 And so again we were, and just a few 17 points this, we recommend that dose on reconstruction is feasible and here's the main 18 19 primes, which is the DOE, which we didn't include in the Definition. 20

21 We're including it on this by -- we 22 didn't name them, so we're saying right here this 23 is -- and we can do dose reconstruction for DOE

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1 at this time, but tell Westinghouse, Hanford, Rockwell, Boeing, UNC, and that goes through '87. 2 And you see the list of contractors 3 decreases because they subsumed by Westinghouse. 4 But still you have DOE, Battelle, Westinghouse 5 and HEF through 1990. 6 7 We're saying that dose reconstruction is not feasible for all the other employees of 8 the Energy 9 Department of contractors and subcontractors, that meaning the J.A. Jones and 10 Kaiser primes and all the subs at Hanford. 11 12 For external dose, the same groups are named as that we can do dose reconstruction. 13 And 14 we say that, you'll notice that the top of it is partial dose reconstruction is feasible because 15 16 we're going to use their external dose. The infeasibility is the 17 for internal dose at Hanford. 18 19 so we'll use the external And as feasibility 20 partial dose reconstruction and you'll that we'll have gamma, beta and neutron 21 22 occupational X-ray all marked. 23 to give you a feel for Just the

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claims, you saw numbers earlier. Right now, our
 records show we have 5,384 claims for dose
 reconstruction. During this timeframe 2,175
 cases. 1,801 dose reconstructions completed.

see internal dosimetry records, 5 We 6 1,532, not saying that those are all cases with 7 the right kinds of internal dosimetry records. Those could be pre-job employment, but they had 8 9 bioassay records of some kind. Number of claims 10 with external dosimetry, 2,125. Almost everybody had an external badge. 11

12 Now, I will point out the review of 13 the cases that have an SEC cancer by NIOSH 14 indicates that there's 723 cases. They have a dose reconstruction with a PoC less than 50 15 16 percent. And that there are 29 cases at NIOSH 17 awaiting a dose reconstruction that may need further evaluation under this Class. 18 We have 19 sent that list to Department of Labor.

The Department of Energy has indicated that they have substantial new information particularly for the cases that were processed earlier on employment.

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1 And so Gail has been working extremely find all the 2 hard to subcontractors and additional information. And she has literally 3 millions of new finding aides associated with her 4 records. And I'm sure she'd be happy to show you 5 all the work that she's been doing this last nine 6 7 years.

But, so those early cases have not 8 9 re-vetted against her. if been So they're 10 reopened, she will have to look quite a bit to find out what the all the updated employment may 11 12 be. Obviously, the primes, we believe we've 13 always had good information. But for 14 subcontractors that may have changed guite a bit. And I've already, sort of, I've read 15 16 through the Class Definition, but for completeness, I'll go ahead and close. 17

All employees of Department of Energy 18 19 contractors and subcontractors, excluding following Hanford 20 employees of the prime 21 contractors during the specified time periods. 22 Battelle Memorial Institute, January

23 1, 1984 through December 31st, 1990; Rockwell

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Hanford Operations, January 1, 1984 through June 1 28th, 1987; Boeing Computer Services Richland, 2 January 1, 1984 through June 28th, 1987; UNC 3 Nuclear Industries, January 1, 1984 through June 4 28th, 1987; Westinghouse Hanford Company, January 5 1, 1984 through December 31st, 1990; and Hanford 6 Environmental Health Foundation, January 1, 1984 7 through December 31st, 1990. 8

Who worked at the Hanford Site in 9 10 Richland, Washington, during the period from January 1, 1984 through December 31, 1990, for a 11 12 number of work days aggregating at least 250 work 13 days occurring either solely under this 14 employment or in combination with work days within the parameters established for one or more 15 16 other Classes of employees included in the 17 Special Exposure Cohort. Thank you.

18 CHAIRMAN MELIUS: Thank you, Sam.
19 Board Members with questions? Okay. Paul, go
20 ahead.

21 MEMBER ZIEMER: Not really a 22 question, but a comment, but for the benefit of 23 the Board. One of the questions that arose in

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1 the Work Group session was do we know that DOL can actually administer this strange Definition? 2 And I think we were told the answer is 3 yes, at least NIOSH thinks that the case. 4 And 5 I'm wondering if DOL believes that that's the I'm assuming they do or they would 6 case as well? 7 have screamed much earlier. MR. CRAWFORD: 8 There was some 9 screaming, but the Seattle office has looked into 10 test cases. And they feel that they can indeed identify the proper subcontractors and get the 11 12 true employment picture now, especially with the added DOE material which is becoming available 13 14 now. So they're willing to take it on. 15 16 They believe they can do it. That's the last I heard. 17 CHAIRMAN MELIUS: 18 Okav. Yes. Anv 19 other comments or questions? Board Members on 20 the phone, do you have comments, questions?

21 MEMBER LEMEN: None for me.

22 CHAIRMAN MELIUS: Okay. Good. Okay.

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23 Jim Lockey?

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1 MEMBER LOCKEY: Hey, thanks for 2 holding that for me. That's when you're 68 you hold 3 can't things anymore. Anyway, the Department of Energy has indicated that have 4 substantial new information on employment of 5 subcontractors that may also have additional 6 7 impact. Impact on what?

8 DR. GLOVER: So one of the cases that 9 we were looking at, when you have an 83.14 you 10 have to have a petitioner as part of that Class. 11 And we typically would use a case that has not 12 has a dose reconstruction completed.

And so we were, as we identified a person in one of the cases we looked at, well, because we do dose reconstruction, we don't have like a big bin that just sits around and you could just pick from and, so we thought, well, perhaps we would look at some old cases.

And so one of the cases we were looking at and provided as an example case as well, when they looked at it, the additional information they found actually qualified them under the current SEC. And they, obviously,

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already have told the Department of Labor about
 that.

And so that sort of information may be -- and it gives them additional time, even in previous SEC periods, that was previously unidentified time at Hanford.

7 And, you know, one of the issues, they 8 said well, not every subcontractor could be 9 identified right now. Well, that would have been 10 the case even for someone who had to do dose 11 reconstruction anyway. You know, the Class, if 12 they weren't identified as being at Hanford, that 13 was always a problem.

14 And, so, in this case we're trying to include all of that, but obviously, they have to 15 16 be put at Hanford and that's always been That's what Gail has been working 17 something. very hard to do, and obviously her team with 18 19 support by headquarters.

20 CHAIRMAN MELIUS: Any other 21 questions? understanding is that My the 22 petitioner for this particular petition does not 23 wish to make any comments.

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1 So I think we can move straight ahead, 2 though Work Group did not make a recommendation, though I think not all of us were on the call, 3 and we do think that we were supportive of the 4 recommendation from NIOSH, but decided we could 5 wait two days of the Work Group meeting. So I'm 6 7 looking for a, if there are no further questions, a recommendation or action from the Board. 8 9 MEMBER CLAWSON: I'm make a Jim, 10 motion that we accept NIOSH's Class as defined. 11 CHAIRMAN MELIUS: Okay. 12 MEMBER POSTON: Same. 13 CHAIRMAN MELIUS: Who's that? 14 MEMBER SCHOFIELD: I'll second that. This is Phil. 15 16 MR. KATZ: Poston --17 CHAIRMAN MELIUS: Dr. Poston, gets Beat you to it, Phil. 18 this. 19 MEMBER SCHOFIELD: Oh, Т heard 20 someone. Man, I'm getting lazy. 21 CHAIRMAN MELIUS: So thank you. Any 22 further comments? If not, I'll ask Ted to do the 23 roll call.

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1	MR	R. KATZ: Very good. Dr. Anderson.	
2	ME	MBER ANDERSON: Yes.	
3	MR	R. KATZ: Ms. Beach is recused. Mr	•
4	Clawson?		
5	ME	MBER CLAWSON: Yes.	
6	MR	R. KATZ: Dr. Field?	
7	ME	MBER FIELD: Yes.	
8	MR	R. KATZ: Dr. Kotelchuck?	
9	ME	MBER KOTELCHUCK: Yes.	
10	MR	R. KATZ: Dr. Lemen?	
11	ME	MBER LEMEN: Yes.	
12	MR	R. KATZ: Dr. Lockey?	
13	ME	MBER LOCKEY: Yes.	
14	MR	R. KATZ: Dr. Melius?	
15	CH	IAIRMAN MELIUS: Yes.	
16	MR	R. KATZ: Ms. Munn is recused. Dr	•
17	Poston?		
18	ME	MBER POSTON: Yes.	
19	MR	R. KATZ: Dr. Richardson? Dr	•
20	Richardson, p	erhaps you're on mute?	
21	ME	MBER RICHARDSON: Yes.	
22	MR	R. KATZ: Not any more. Dr	•
23	Roessler?		

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1 MEMBER ROESSLER: Yes. 2 MR. KATZ: Mr. Schofield? MEMBER SCHOFIELD: 3 Yes. 4 MR. KATZ: Ms. Valerio? 5 MEMBER VALERIO: Yes. And Dr. Ziemer? 6 MR. KATZ: 7 MEMBER ZIEMER: Yes. 8 MR. KATZ: It's a clean sweep, passes 9 unanimously. 10 CHAIRMAN MELIUS: Okay. And I have a 11 letter ready, but I think we've heard the So I will save that for 12 Definition enough. 13 tomorrow just to read into the record and Board 14 to review and do that. 15 So we will now start our public 16 comment period a little bit early, but I think we 17 have enough people signed up. So, Ted, if you will give the instructions, I'll go out and get 18 19 the list. MR. KATZ: Yes, let me just remind in 20 21 case anybody came since Dr. Melius addressed the 22 If there are people in the room who would group. 23 like to give a presentation, we have a list **NEAL R. GROSS**

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1 outside.

But if you haven't signed up, don't 2 worry about it. At the end of getting through 3 that list, we'll ask again if anyone in the room 4 would like to give comments and that'll be fine. 5 You'll just come up in order that you raised your 6 7 hand, so no problem there. And then we'll move to people on the phone for Hanford or for another 8 site. We'll take the Hanford calls first, I 9 10 suppose.

So just to let you all know in case 11 12 some of you never attended a Board meeting 13 before, these meetings are all fully transcribed, so there's a verbatim written record of this 14 meeting with everything everybody said that gets 15 16 published on the NIOSH website for all the public. 17

And so as part of that, your public comments also get published verbatim with your name and so on. So any private information you give about yourself, understand that information you're giving to the whole public and take that into consideration. And we will publish all of

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1 We'll print all that for the public. that. 2 But if you speak about someone else, a third party, we will protect that person's 3 privacy because we don't have that person here to 4 5 be assured that that person that wants information released. So we'll have to redact 6 7 certain information from what you might say about a third party just to protect their privacy. 8 And that's sort of the basic policy 9 10 that we have. If you want to see the full details, there should be a sheet back there on 11 12 this recusal policy and also on the NIOSH website 13 for people on the line if they want to look at 14 But that's it in a nutshell, so. it. And with that, that takes care of my 15 16 part. Thanks. 17 CHAIRMAN MELIUS: Thank you, Ted. And the first person I have that's signed up is 18 19 LaDell Vance. Are you in the room? Okav. And, Mr. Vance, if you would prefer to sit down when 20 you use the mic over there, you're welcome to 21 22 rather than stand up. It's up to you. 23 Whichever's your preference, yes.

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1 MR. VANCE : Ι appreciate this I'll read the 2 opportunity. statement I've prepared here and leave it with you. 3 I have bone cancer that was diagnosed 4 in August of 2012. The diagnosing physician said 5 it was the worst case that she'd ever seen and 6 7 says I will be praying for you. Although the NIOSH analysis noted it 8 than 50 percent this is caused by 9 was less employment at Hanford, I'm certain it was. 10 The minimum of cancer in my progenitors and none that 11 12 I'm aware of that had bone cancer. 13 I spent one year at N reactor and then 14 the next several years in the 300 area working in construction quality with the 15 assurance 16 construction contractors, but I was working for UNC and Westinghouse. 17 I started working at Hanford in July 18 19 of '83, which would have put me under the previous But starting in July, I didn't have the 20 SEC. 21 required 250 days working at that time. 22 As I look on the internet, it is noted 23 that the 250-day requirement is written into law

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by Congress and that after it originally passed,
 there's actually no scientific basis for this 250
 days and it notes that.

As there's no scientific basis for this, I feel it should be changed to have worked at Hanford for 250 days, but in order to keep out the short timers or the people that don't limit it to 1984. Anybody working before 1984 and working for one year should be allowed into this SEC is my feelings. Does that make any sense?

11 I've been involved with the Huntsman 12 Institute in Utah for my treatment, participating 13 in some experiments and this has kept me alive. 14 Next week, I'll be making my seventeenth trip to 15 Utah and anxious to find if there are other 16 protocols to help me.

They initially put a pain pump in me and this morphine has kept my pain at bay. I would strongly suggest this unscientific 250 days be changed and I be allowed to obtain funds to help with these expenditures. Thank you.

22 CHAIRMAN MELIUS: Okay. Thank you,
23 Mr. Vance, appreciate it. Okay. The next person

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who signed up for public comment is Knut Ringen.
 I think I pronounced that correctly.

3 DR. RINGEN: Well, you're getting better at it. My name is Knut Ringen and I think 4 this is the ninth time that I've spoken before 5 I'm the senior science advisor for CPWR 6 vou. 7 which is the Center for Construction Research and Training. I'm also the 8 And principal investigator on the National Medical Screening 9 10 Program for construction workers that Pat Worthington talked about earlier this morning. 11

12 I'm here on behalf of the National 13 Building Trades of America. The Central 14 Washington Building and Construction Trades Council and Augusta Building and Construction 15 16 Trades Council have asked me to make some 17 comments.

And the two issues that I'm going to talk briefly about is the Hanford SEC that you've just referred to and also the coworker modeling that was discussed by Dr. Neton earlier today. By background, I met somebody,

23 somewhere in the last month, and I can't remember

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1 who it was who said essence of understanding 2 construction safety and health is to be able to 3 anticipate the unexpected. And I thought that 4 was a very good way of looking at it because so 5 much what happens in construction is episodic.

6 We had just a week ago or two weeks 7 ago in Seattle, a situation on a construction 8 site where one employer was working with a boom 9 crane and other employer was setting up a wall on 10 a big scaffold.

11 The one employer hit over the scaffold 12 with the crane, workers fell down, and this 13 happens all the time because the unexpected is 14 not anticipated properly. And we see that also 15 throughout everything that's happened here with 16 the construction workers.

And I've tried to explain this from the start of this program, that you have to look at construction workers differently than you do in those lower production workers.

21 We held a workshop for NIOSH in 2005 22 to demonstrate how different industrial hygiene 23 exposures are in construction, how much greater

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the statistical variance are and we use their hot worker weldings and bracing as examples of this. And you cannot take the model or mindset that you have in typical industrial hygiene and apply it to construction because it simply does not work.

7 We also felt and have said several 8 times that we think NIOSH has had the bias in 9 favor of what the professional health and safety 10 personnel and the health physics personnel on 11 these sites have said.

12 And then not given equal weight to 13 what the construction workers have said even 14 though you've interviewed hundreds and hundreds 15 of construction workers on these sites.

16 And you've heard over and over again 17 stories that portrayed what Dr. Glover expressed 18 as the complexities of doing construction work 19 and being in construction here.

You could very easily be a contractor on one day and the employee of another contractor the next day because many construction workers work also as independent contractors frequently.

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So among those many contractors that Gail Splett
 has done outstanding job of identifying.

3 It's very complex to say exactly 4 what's what and that's what was referred to by 5 Dr. Glover when he said that it's going to be 6 very helpful to get additional information or to 7 characterize who actually was the employer.

8 We maintain a large contract for the 9 Department of Labor to try to identify or verify 10 if a contractor has been on a DOE site, if the 11 worker has been employed by that contractor and 12 the dates that they have been employed on it 13 because DOL is unable to get that documentation 14 readily from its own websites.

And since we have now screened and interviewed close to or over 25,000 workers, including 4,000 construction workers here at Hanford, we have a pretty good record of what has been going on from what the workers have told us in detailed interviews.

21 So I'd first like to thank both Dr. 22 Neton and Dr. Glover for their presentations and 23 for starting to accept maybe a little bit more

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about what we've been saying for a long time.

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But having said that I think I should try to push you a little further and a little faster. At Hanford, Dr. Glover has agreed that the cutoff date of December 31, 1990 is, in fact, an artifact that could change and very well likely will change and I believe it will have to change.

We know from our own epidemiological 9 10 studies which are either published or in for risks 11 publication right that the now 12 construction workers continued throughout the 13 1980s and into the 1990s. And at some point towards the later parts of the 1990s conditions 14 started to get better on these sites. 15

So I have no doubt that -- and that 16 includes a lot of the monitoring. 17 I have no doubt that that will need to be continued. 18 And 19 there are many things here that corroborate that. The fact is that up until the present 20 21 time there are still problems with monitoring 22 here as has been documented just recently in the 23 tank farms.

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1 So I hope as you go forward, here at Hanford, that you don't take as long to develop 2 the additional Classes that are going to be added 3 here as you have done to get to the point that 4 5 you have done so far. And I will explain that and why this issue of timeliness is so important. 6 7 With regard to Dr. Neton's plain English document, it's not as plain to me as it 8 is to you maybe because the issue is still how is 9 10 it going to be implemented. And that's not clear from the document. 11 And that's going to vary, 12 obviously, from DOE site to DOE site and it'd be

14 starting, Ι would think But with Savannah River there's a huge amount of work to 15 16 be undertaken to undo and redo the kind of models that have been developed so far and that I believe 17 Dr. Neton's document explains are no longer valid 18 and should not be valid. 19

good to know a little bit more about that.

20 The law says that NIOSH may 21 extrapolate from other data to estimate the risk 22 to workers. It doesn't say NIOSH has to do that. 23 And the question is how much time are you going

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1 to spend trying to do it before you say you can't 2 do it?

And this has been going on for a very long time. The Savannah River SEC is now in its eighth year I believe or something like that, and it's not completed. The Hanford one is about equally long and many others.

These are old workers. They're frail 8 and sick workers. And if you wanted to get a 9 timely decision that will be resolve their claims 10 in their lives times, then this process has to be 11 12 sped up. And I hope, really hope that with regard to Savannah River you will take that to 13 14 heart and make a real effort at it. Thank you.

CHAIRMAN MELIUS: Thank you. 15 And I 16 think if you may have overheard earlier, we certainly understand that concern and are moving 17 forward on it and that includes for the Hanford 18 19 site. We're in discussions in the Work Group and will continue to look into that follow-up 20 we 21 period that's not currently covered.

Next person we have signed up, Faye,and I also mispronounce your name. I apologize.

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1 Faye Vlieger?

2 MS. VLIEGER: I always tell you I can 3 tell you're not family when you pronounce it that 4 way.

5 Good afternoon, my name is Faye and I'm the chair 6 Vlieger of DTAB that was 7 mentioned earlier by NIOSH. I'm also a member of Cold War Patriots Advisory Committee. 8

behalf of both Cold 9 And on War Patriots and DIAB, I would like to thank the 10 Board, DOE, DOL and SC&A for all the hard work 11 12 that we've done so far in the many years that 13 we've been at it.

14 None of us expected this to be a 15 lifetime commitment, however, for some of us it 16 already has been or an end of life commitment. 17 So I would encourage the Board also to work at 18 finding ways to make it faster because we have an 19 aging population of workers.

20 And as you can tell from the numbers 21 that NIOSH has told you and DOL, you know, we 22 have a lot of survivor claims now. And they 23 should have been paid during the workers'

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1 lifetime.

It's unfortunate that this program is taking this long, but part of it is the way the records are not maintained at the sites. And we should not have to go on an Easter egg hunt at every document site across the United States to look for them.

The worker advocates are encouraged by 8 9 the extension of the Hanford SEC and await the 10 Hanford Work Group and the Board's further investigations 11 report the excluded and on 12 workers.

In addition, the worker advocates that met with DOL, DOE, NIOSH and others last week in Denver, also look forward to responses to our answers to the question posed of the agencies including coworker data and how it is to be used.

Once again, I want to tell you thank you. I know you think all we do is complain about you, but we really do appreciate all the hard work and effort that you put into this, recognizing that, except for one, you're not full-time government employees. And I think

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people forget that on a regular basis. Thank
 you.

3 CHAIRMAN MELIUS: Thank you. But you're welcome to continue to complain also. 4 5 MS. VLIEGER: That won't stop me. T know 6 CHAIRMAN MELIUS: T know. 7 that's why I said it. Okay. Thank you. Anybody else here in the audience related to the Hanford 8 9 site that wishes to make public comments that might not have signed up? Well, okay, you're 10 welcome to. All we need you --11 12 MR. BOYD: Well, I'm an ex-13 contractor. 14 CHAIRMAN MELIUS: Okay. If you talk 15 into the mic and identify yourself. 16 MR. BOYD: Okay. My name is Larry I ran Universal Builders and Diversified 17 Boyd. Builders out in the area working for J.A. Jones. 18 19 And going along with the mindset of construction workers, I just wanted to make one point. 20 21 You know, I had a badge all the time 22 and that badge sat on the dashboard of my car to 23 allow me to get in and out 200/300 Z Plant, you

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1 know, I went all over the areas.

2	And that's where my badge sat all the
3	time was on the dashboard of my car because when
4	you're doing construction work, I mean, we're
5	moving and up and down and I'd knock the badge
6	off all the time and it was just a pain to wear
7	it. And to try to put it on your pants and you're
8	catching things on it and it just never worked.
9	And, so I requested some documents
10	from NIOSH. Many relating to the jobs that I was
11	awarded with J.A. Jones and I was trying to, you
12	know, I can't remember that far back about all
13	the different jobs I had and whether I mean,
14	I remember their Z Plant that I was inside of.
15	Nobody had ever seen a private car in
16	Z Plant. When I was driving my 280Z around Z
17	Plant probably had a guard escort behind me, but.
18	And I put up a metal building in there. And,
19	again, guards were sitting 30 feet away and my
20	badge was sitting 30 feet away in my vehicle.
21	And anyway I tried to request some
22	documents just to refresh my mind on all the jobs
23	that I had and the length of the contracts and

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1 stuff like that. And I got 88 pages of graphs 2 and charts and graphs and charts explaining the 3 graphs and charts, but none of it had anything to 4 do with just the simple question that I asked 5 about the jobs that I completed and the duration 6 of time that I spent out there on each of these 7 jobs.

8 So, you know, the process of construction workers is different. 9 It definitely is different. 10 And I've had cancer and I've had tumors that are unexplained. 11 And the 12 only cancer I had in my family was my father who \$300,000 13 was awarded for dying from three 14 different kinds of cancer and that was 20-some 15 years ago.

And that's the only cancer I've ever 16 had on either side of my family. And, you know, 17 I've got cancer again. My whole endocrine system 18 19 is compromised now, from my pituitary glands and 20 my prostrate and mγ liver, mγ kidneys. 21 Everything is starting to bother me now, but none 22 of these are approved cancers I hear. And I've been denied any kind of compensation. 23

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But in, again, in figuring your radiation dose, there's just no way to do it, I don't think, because my badge just wasn't on me, it was in my car. And that's about all I wanted to say.

6 CHAIRMAN MELIUS: Okay. Thank you. 7 Hopefully, this SEC, once it's in place, will make some of that easier, not all of it, but 8 9 address many of those. Anybody else that wishes to make public comments on the Hanford site? 10 We have some other people from other sites, but want 11 12 to give Hanford the --

MR. FROWISS: Yes, on the phone, yes.
CHAIRMAN MELIUS: Is this regarding
the Hanford site?

16 MR. FROWISS: Yes, on the phone. 17 Yes.

18 CHAIRMAN MELIUS: Oh, okay. Good.
19 If you could identify yourself and then go ahead
20 and speak.

21 MR. FROWISS: Yes, this is Albert B. 22 Frowiss. I'm an advocate nationally and I do 23 Hanford claims. And I just wanted to say, well,

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1 thank you for what you're doing, but I think it's 2 going to be a nightmare for the Department of 3 Labor.

They can speak for themselves, but I 4 every examiner in 5 know there Seattle and managers, I don't believe that they're going to 6 7 be able to handle this very well. So that's basically just what I want to say. 8 Thank you.

9 CHAIRMAN MELIUS: Okay. Thank you. 10 Anybody else that wishes to make comments relative to the Hanford site? 11 Well, Okay. 12 should we just break or just keep going, do you 13 think? I've got Wayne Knox that's here.

Okay. The other person I have signed up that's to which make public comments who's here is Wayne Knox. Wayne?

17 MR. KNOX: Well, I'm back again.

18 CHAIRMAN MELIUS: Yes.

MR. KNOX: I haven't given up. As you may know, I am the sponsor and writer of the Kansas City SEC. It's been processing for now, going on two years. My expectation to my wife was that we should have it roughly done within

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1 180 days as specified by law. But it's
 2 continuing.

I am concerned about the continuation 3 of the processing of a document that should have 4 been completed in 2005 because that's when the 5 Site Profile was developed. If you do not have 6 7 all of the data up to now, how could you deny people from 2005 up to now? But we have denied. 8 9 I have some particular problem that I want to address to the Board and solicit your 10 Again, I wrote the Kansas City SEC. 11 support. 12 And I felt that I very well justified the fact 13 that NIOSH nor even I, who created the data, could 14 accurately reconstruct these doses. NIOSH now has said things to the 15 16 Board, Josie perhaps, and other Members that I'm not really qualified to speak to the issues of 17 health physics. 18 19 And, in fact, I have an affidavit signed by one person that says that that's what 20 21 NIOSH has done. They have attempted to discredit 22 and say that I am not qualified to make me

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1 I have a Master's degree in nuclear engineering and health physics from Georgia Tech. 2 I studied under the father of health physics for 3 one quarter, directly under him debating the 4 5 issues with Dr. K. Z. Morgan. I worked in his greenhouse helping 6 7 him. We argued many issues. I was a Major in nuclear medicine science in the Medical Corps. 8 I was a Captain in the Air Force in radiation 9 10 physics. But NIOSH seems to feel as though I'm 11 12 not qualified to make statements during these 13 Working Group meetings. And that's supported by 14 the Board, that I cannot, when NIOSH makes a statement that is knowingly false, I cannot say 15

16 stop, that's not true.

NIOSH and my problems, if you will,
started back in 1997 when NIOSH said that they
could accurately reconstruct these radiation
doses.

I maintained they could not accurately reconstruct these doses and I called the meeting of the CDC and others to discuss the fact that

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NIOSH was making false claims about their
 capability.

Accuracy requires that you know the answer is how close you get to the right answer. If you're shooting a gun, the accuracy is how close you get to the bullseye.

7 So in 1997 I provided data and 8 information and show where that statement of 9 accuracy was illogical, unscientific and could 10 not be satisfied.

But I took my eye off the ball and the 11 12 next thing I know when the Act was passed, they 13 had sufficiently accurate, which is not 14 scientific, it's not logical, it's not even testable. 15

16 NIOSH and I have had other issues. At 17 this point NIOSH health physicists refuse to talk 18 to me. They refuse to talk to me because I have 19 challenged them on several issues and I have 20 proven that they are wrong.

They now have a person that's not a health physicist talk to me. And I have to relate my concerns to the NIOSH spokesman. And

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that spokesman, again, a non-health physicist has go to a NIOSH health physicist in order to tell him what my problems are and then come back to me and explain to me what the NIOSH person said.

6 This person's name is Brad. He 7 refuses to give me his name. He refuses to tell 8 me what health physicist that he talked to that 9 told him what the response was.

Additionally, I asked. 10 I said I must talk to a health physicist. So NIOSH said, okay, 11 12 well, we'll let you talk to a health physicist. 13 So they call me on the phone and said we have two 14 health physicists that will listen to you, but we cannot give you their name, we can give you their 15 16 code names.

One name was Pat M. I said why can't we talk health -- they cannot answer your question, they can only listen to you. You only asked to being heard by a health physicist.

I feel that those problems that I had with NIOSH has been transferred to our discussions of the Special Exposure Cohort. Now,

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Josie Beach will not allow me during discussions to counter anything that NIOSH says and is patently wrong.

It needs to be challenged on the spot 4 reserved for 5 rather than be later comment. Aqain, I'm a health physicist. 6 I'm qualified. I was born under Dr. K. Z. Morgan. 7 I worked here at Hanford under what I think was the father of 8 health physics, Wally Howell. 9

10 And there's a huge difference between 11 a health physicist and an operational health 12 physicist.

At Hanford, I came here in 1974. 13 Т 14 was not at a health physicist with a Master's in nuclear engineering and 15 degree health 16 physicist could not touch a radiation safety radiation detector. 17

I could not write down a number. 18 It 19 had to be done by radiation technicians. And those technicians were not trained. 20 We had no 21 training courses in them. I established the 22 first set of training courses here in radiation 23 safety and for my health physics technicians.

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1 CHAIRMAN MELIUS: One more minute. 2 MR. KNOX: Okay. The bottom Okay. line is that we're dealing with a situation 3 whereby we never made all of these measurements 4 5 that you thought we made because when I came on board [identifying information redacted] said our 6 7 job is to minimize radiation exposure, not make all of these measurements. 8 The most important thing you can do as 9 10 an operational health physicist is to minimize worker exposures and that's what we did. All of 11 12 those measurements we made have huge error bars 13 associated with it because it wasn't important to And I'll shut up. 14 Thank you. us. CHAIRMAN MELIUS: Thank 15 you, Mr. 16 Knox. I believe we have Dr. Dan McKeel on the 17 line. Are you on the line, Dan? Yes, I am, Dr. Melius. 18 DR. MCKEEL: 19 Can you hear me? 20 CHAIRMAN MELIUS: Yes, we can, so go ahead with your public comment. 21 22 DR. Thank Good MCKEEL: you. I'm Dan McKeel. 23 afternoon to the Board Members. **NEAL R. GROSS**

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I'm the General Steel Industries SEC-105 co petitioner.

A media reporter wrote to me yesterday as follows, and I'm quoting, "I see that you recently have been somewhat successful in your efforts to challenge the dose reconstruction methods. I continue to collect information on the issues and wonder if you might offer your opinions on the system and the outcome.

it a fair resolution? 10 Is Is the government extending benefits to all workers who 11 12 likely developed cancer as a result of iob-13 related exposure to radioactive material? 14 Thanks."

This is my reply. "Thank you for your continued interest in GSI-related developments under EEOICPA-2000. The issuance of Appendix BB Rev 1 6/6/14 and PER-057 3/11/15 are big news because a hundred previously denied claims may and now should be compensated.

This result, a hundred claims of PoC over 50 percent in a Program Evaluation Report issued for revised site Technical Basis Document

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is truly unprecedented among 58 PERs issued since
 2003.

Basically, 3 NIOSH has seriously underestimated GSI radiation doses since the 4 beginning, starting in 2004. PER-024 for the 5 first four GSI dose reconstructions done in 2004 6 7 was not issued until September 2007. What is additionally extremely unfair 8 are the following facts. One, it took NIOSH's 9 DCAS component, ABRWH, the TBD-6000 Work Group 10 especially, and SC&A, the Board contractor, over 11 12 seven years to revise Appendix BB Rev 0 issued in June 2007. 13 14 Moreover, five of SC&As ten new

findings, technical disputes, but NIOSHs Appendix BB Rev 1 were not resolved at the TBD-6000 Work Group meeting held on 2/5/15.

18 The five findings will have to be 19 resolved in the future and Appendix BB Rev 2 and 20 perhaps a new PER issued. Result, more unfair 21 delays.

22 Second point is NIOSH should have 23 revised Appendix BB Rev 0 in October 2007. When

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a consensus was reached, the average work week at
 GSI was 65 hours rather than 48 hours.

Point three, NIOSH should have revised
Appendix BB Rev 0 a second time when Dan McKeel,
the GSI SEC-00105 co-petitioner, provided NIOSH,
the Board and SC&A with 1,016 pages of unredacted
GSI AEC license information as part of his FOIA
request NRC 2010-0012.

provided 9 Those documents new 10 information about GSI having two radium-226 sources that were used for non-destructive metal 11 12 testing that led to higher worker external 13 radiation exposures for the first ten years of the GSI AEC contract period from 1952 through 14 1962. 15

16 These finding along should have led to the issuance of Rev 1 of Appendix BB in PER-057 17 in 2011 rather than in 2015. 18 Compensation was 19 thus denied unfairly to at 100 GSI least claimants for four extra years. 20

21 Point four, the ABRWH Board voted nine 22 eight 12/11/12to recommend the HHS to on 23 secretary deny GSI's SEC-105. Secretary

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1 Sebelius did deny the SEC in March 2013.

The GSI petitioner and I then filed an 2 SEC Administrative Review allowed 3 as under EEOICPA-2000 with HHS on April the 17th, 2013. 4 5 In complete secrecy, three-member HHS а independent review panel has been deliberating 6 7 about our administrative review since April 2013. They will make a recommendation to the 8 9 HHS secretary, currently Sylvia Burwell, who will make a final decision whether to deny SEC-105 or 10 to reverse the previous denial and approve GSI 11 12 SEC-105. 13 The Act imposed no time limit on

14 anyone for rendering this decision. In my opinion, that sad fact and the 15 secrecy 16 surrounding SEC appeals are extremely unfair to claimants. 17

The HHS review panel should be able to 18 19 reach а decision in The two years. SEC petitioners believe GSI should have received an 20 21 83.14 SEC in 2005. NIOSH, the DCAS component, 22 refuses to tell the SEC petitioners the number of 23 GSI claimants in the SEC-105 plan.

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The FOIA Dan McKeel filed on 4/10/14 1 for the complete GSI administrative record is 2 being held up being acted upon until after June 3 2015 by the CDC FOIA office. Legally, they have 4 5 30 days to provide these FOIA records. It is distressing the DOL indicates to 6 PER-057 claimants that NIOSH has not submitted 7 the related case list to them two weeks after the 8 PER was issued, 3/11/15. 9 Dr. Neton, today, disputes this fact 10 and states NIOSH sent this list to DOL on 3/11/15. 11 12 But I can tell you from personal phone calls with 13 the people who have called NIOSH and DOL that at 14 least three claims examiners do not know that fact. 15 16 The final part relates to your

17 question is the government being fair to all 18 nuclear weapons workers.

My eighth and final point is if DOL refuses to send each of the 196 persons included in GSI PER-057 an informational letter alerting them to Appendix BB Rev 1 and PER-057 being issued. Such a letter is needed because many

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claimants have no internet access or other way of
 learning how these two documents will affect
 their claims and financial interests.

This is not fair either. I believe Department of Labor's refusal is unwarranted and completely unreasonable and have told them so. The answer is a huge no. The U.S. government is not being fair on several fronts at GSI.

9 The delay in revising Appendix BB, the 10 delay in providing FOIA materials, the refusal to 11 provide basic SEC Class size and much other data 12 and the refusal to inform denied claimants their 13 claims for being reevaluated by NIOSH and DOL.

Overall DOL has been successful in enlisting only 25.4 percent of the 700,000 former and present members of the U.S.A. nuclear weapons worker pool to file EEOICPA Part B and E claims. DOE cases represent 47 percent and AWE cases 53 percent of the total mix of cases filed.

20 DOL outreach efforts fall woefully 21 short in recruiting new EEOICPA Part B and E 22 claims to be filed.

23 Current DOL, NIOSH and DOE outreach

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efforts are primarily directed at large 1 DOE 2 sites, such as Hanford, Savannah River, 0ak Ridge, Los Alamos and Rocky Flats that already 3 have thousands of compensated claims. Illinois 4 AWE sites like GSI and Dow Madison are neglected 5 even though they have among the highest numbers 6 of AWE claims and cases." 7

conclusion, the reporter 8 My asked 9 excellent questions. I thank the Board for their time and I will forward a written copy of these 10 including additional 11 to the DFO comments 12 information to correct today's Rocky Flats Work 13 Group report. Thank you very much.

14 CHAIRMAN MELIUS: Okay. Thank you, 15 Dr. McKeel. Is there anybody else on the line 16 who wishes to make public comments? Okay. It's 17 4:15, so why don't we break for 15 minutes and 18 then --

19 MR. KATZ: Yes, for sure --

20 CHAIRMAN MELIUS: Yes.

21 MR. KATZ: -- because we have time.

22 CHAIRMAN MELIUS: Okay. We're going 23 to take a break now at, it's roughly 4:15. You

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1 know, since we scheduled the public comment 2 period for 4:30, we'll come back into session at 3 4:30 and see if there's other people might be 4 calling who wouldn't know that we're running 5 ahead of schedule.

Anybody here is welcome to stay, but you don't need to. Okay. All right. I suspect that most of the comments will be about sites other than Hanford, but I can't predict entirely. So anyway, thank you all for coming.

11 (Whereupon, the above-entitled matter 12 went off the record at 4:16 p.m. and resumed at 13 4:32 p.m.)

14 CHAIRMAN MELIUS: Okay. If everyone 15 could get seated so we can finish up the public 16 comment period? Could you, Dr. Ringen? I was 17 trying to protect Dr. Neton.

18 MEMBER BEACH: Everybody tries to19 help Jim.

20 CHAIRMAN MELIUS: Right. Okay. 21 We're reopening the public comment period for 22 anybody that came on the line after 4:15. We had 23 finished up our Hanford SEC and we took public

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1 comments.

There are a number of people here and 2 then one person on the phone that had signed up. 3 But since the public comment period was scheduled 4 for 4:30, I thought other people might have 5 signed on at 4:30 on the phone. 6 7 So if there's anybody on the phone that would like to make public comments --8 9 MR. FROWISS: Yes. 10 CHAIRMAN MELIUS: -- now. MR. FROWISS: Yes, sir. 11 12 CHAIRMAN MELIUS: Okay. Good ahead. 13 If you can identify yourself and then --14 MR. FROWISS: Yes, I had called earlier and talked about Hanford. This is about 15 16 another topic. This is Albert B. Frowiss, Sr. in Rancho Santa Fe, California. 17 My phone is [identifying information redacted]. 18 19 I'm the petitioner on the new qualified Lawrence Livermore SEC. 20 And when you 21 were reading through or going through the Working 22 Group reports earlier today, I heard Berkeley, 23 but Ι didn't hear any report on Lawrence

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1 Is that going to be in LaVon's report Livermore. 2 tomorrow or is there some update today? will 3 CHAIRMAN MELIUS: LaVon be updating that tomorrow. We don't yet have a Work 4 Group on the Lawrence Livermore site. If we form 5 one, which could be quite likely, it'll be, you 6 7 know, after the NIOSH Evaluation Report comes We would need to do --8 out. 9 MR. FROWISS: I see. 10 CHAIRMAN MELIUS: -- one anyway, so. But LaVon will give an update tomorrow afternoon. 11 12 MR. FROWISS: All right. Well, thank 13 you. 14 CHAIRMAN MELIUS: Thank you. Is there anybody else on the line that wishes to 15 16 make public comments? Yes, this is Bob Warren 17 MR. WARREN: in Black Mountain, North Carolina. This morning 18 one member of the Board asked Mr. Crawford about 19 reporting figures about cancer. 20 Mr. Crawford 21 wasn't aware that DOL had done this in 2006. 22 It would not be that difficult to have the cancers reported by ICD-9 codes they did in 23 **NEAL R. GROSS**

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their report for each site and then get the total for the nation. And I'm wondering whether the Board would let DOE, DOL report by cancer by site and then sort it so then you have national figures?

6 CHAIRMAN MELIUS: Yes. Okav. Т 7 think I understand. Yes, for the non-SEC sites where people that were awarded through dose 8 reconstruction that information is 9 available overall on the NIOSH website. 10

11 MR. WARREN: Right.

12 CHAIRMAN MELIUS: And they will look 13 into a further breakdown by site. They have to 14 be a little bit careful because of some privacy concerns in terms of numbers, particularly at the 15 16 smaller sites. But Ι believe if I recall 17 correctly, Stu Hinnefeld reported this morning they would look into further information. 18 Stu, 19 do you want to --

20 MR. WARREN: Well, NIOSH said they 21 didn't want to do anything and DOL has done this 22 thing before in 2006. And they can do it for SEC 23 sites so that we can figure out which cancers are

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1 being caused by the plants.

2	CHAIRMAN MELIUS: Well, I actually
3	think that the dose reconstructions ones, the
4	ones that NIOSH does dose reconstruction were
5	actually more informative by plant because the
6	other ones is, for the other sites, it's just a
7	list of the SEC cancers. But having both and
8	being able to compare would probably be more
9	useful. I don't know.
10	MR. WARREN: Okay.
11	CHAIRMAN MELIUS: Stu, do you have any
12	
13	MR. HINNEFELD: Well, we have not
14	typically generated site specific cancer
15	outcomes, dose reconstructions for just the
16	reason that you described.
17	If it's a small site, you kind of run
18	afoul of the privacy guidance because you have so
19	many bins. You sort these small number of places
20	into so many bins and you have a small enough
21	group, your chances are you're going to reveal
22	private information inadvertently. So we've not
23	done that on a site specific basis.

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1 I think Mr. Warren suggested that 2 years ago DOL prepared some sort of report that would have been before Chris worked for them and 3 so he would not have been aware of it. I'm not 4 aware of -- I don't remember that. 5 So, but we could talk to the people at 6 7 Labor and see if they'd be willing to do something like that. 8 CHAIRMAN MELIUS: Yes. I would also 9 10 think that something within NIOSH, now that a lot of time has gone by and certainly for the bigger 11 12 sites, that would be --13 MR. HINNEFELD: I think there might be a size, yes, we might. You know, at the --14 15 CHAIRMAN MELIUS: Yes. 16 MR. HINNEFELD: -- bigger sites it might be possible --17 18 CHAIRMAN MELIUS: Yes. 19 MR. HINNEFELD: -- but there are a lot 20 of, you know, there were what, 20-some-odd models 21 and depending on how many bins you break it into 22 _ _ 23 CHAIRMAN MELIUS: Yes. **NEAL R. GROSS**

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1 MR. HINNEFELD: -- you can get pretty 2 small groups. It's also, I think it 3 DR. NETON: 4 could be misleading now with all these SEC sites 5 being added, to report the percentage of compensation by dose reconstructions 6 because 7 we're starting to get a lot of non-presumptive 8 cancers --9 CHAIRMAN MELIUS: Yes. -- that typically don't 10 DR. NETON: really have a lot of dose, internal dose in 11 12 particular, which is usually what gets people 13 compensated at many of these sites. 14 reconstructing So you're prostate

cancer, skin cancers that don't get a lot of dose.
So I'm expecting -- and I think our numbers have
gone down as the SEC sites are growing.

18 So I'm not sure how instructive it 19 really is for us to report those numbers. And 20 Department of Labor, of course, makes the final 21 decision anyway, so they're the ones that really 22 have the ultimate data set.

23 We don't see the SEC cancers. They

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get all of our dose reconstructions and they know
 which ones have been finally adjudicated. So
 just my thoughts.

4 CHAIRMAN MELIUS: I think you're 5 worrying a little bit too much, but let's look 6 into it. I think we can say we'll look into it. 7 Anybody else on the line who wishes to make public 8 comments?

9 Okay. I think we're finished for the 10 day then. We've done that. We thank everybody 11 on the Board and we will reconvene tomorrow 12 morning at, yes, 8:00 to 8:30, but --

13 MEMBER BEACH: Jim, I heard we were 14 going to be upstairs. Is that true or are we 15 still down here?

16 CHAIRMAN MELIUS: Ted doesn't want to 17 take a chance on the messing up the phone system. 18 Yes. Anyway, so we'll reconvene 19 tomorrow 8:00 to 8:30 time. Officially start at

20 8:30 since that's a -- so 8:25 or whatever.

21 (Whereupon, the above-entitled matter 22 went off the record at 4:40 p.m.)

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