# 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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114th MEETING

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WEDNESDAY NOVEMBER 30, 2016

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The meeting convened at 8:30 a.m., Mountain Time, in the Hilton Santa Fe Historic Plaza, 100 Sandoval Street, Santa Fe, New Mexico, James M. Melius, Chair, presiding.

#### PRESENT:

JAMES M. MELIUS, Chair
HENRY ANDERSON, Member
JOSIE BEACH, Member
BRADLEY P. CLAWSON, Member
R. WILLIAM FIELD, Member
DAVID KOTELCHUCK, Member
JAMES E. LOCKEY, Member\*
WANDA I. MUNN, Member
JOHN W. POSTON, SR., 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 ANIGSTEIN, BOB, SC&A\* BARRIE, TERRIE BURGOS, ZAIDA, NIOSH CRAWFORD, FRANK, DOL\* EVASKOVICH, ANDREW FIFER, ROBERT\* FITZGERALD, JOE, SC&A FROWISS, AL\* GRIFFON, MARK HAND, DONNA HINNEFELD, STU, DCAS HUGHES, LARA, DCAS JERISON, DEB KINMAN, JOSH, DCAS LEWIS, GREG, DOE LIN, JENNY, HHS RUTHERFORD, LAVON, DCAS STEPHENS, HUGH TOMES, TOM, DCAS\* STIVER, JOHN, SC&A

<sup>\*</sup>participating via telephone

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### 1 P-R-O-C-E-E-D-I-N-G-S (8:30 a.m.)2 Welcome and Introduction 3 4 CHAIR MELIUS: Hello. Hello first, and welcome to the 114th meeting of the Advisory 5 Board on Radiation and Worker Health. We'll have 6 7 a number of Members here and, obviously, we also will have a few calling in, some not for the entire 8 9 time, but some for, we expect to be in the entire 10 meeting. So you'll hear us refer to them also. So let me turn it over to our Designated 11 Federal Official, Ted Katz who will do the --12 13 MR. KATZ: Thank you, Jim. Yes, welcome everyone here in the room, from the area, 14 15 and on the line joining us today. So preliminaries. For folks in the room, 16 presentation materials you'll find on the back 17 You're welcome to them. 18 table. 19 For people joining us on the telephone, the agenda and the presentation materials are on 20 21 the NIOSH website under this program's portion of 22 the website, schedule of meetings, today's date.

1 You can go there, get the agenda, see what you're interested in and follow presentations that way if 2 3 you wish. There's also, this is also available 4 online through Live Meeting. And on that agenda 5 for folks on the line, you can find the connection 6 information so that you can get on Live Meeting if 7 you want to -- all that will do for you is allow 8 9 you to see the slides as they're presented. you can do just as well, I think, just pulling the 10 documents up on the website. Whichever you like. 11 12 So Board roll call, I am going to, because it's I think simpler, I'm going to run 13 through roll call but before I do I'll cover --14 15 well, I'll just do it in real time. As Members 16 speak, we'll have some Members on the line that will 17 be with us for portions of the meeting and not others, but I'll address their conflict of interest 18 19 as I qo. 20 So roll call, I'11 do this 21 alphabetically both for the folks on the line and 22 for our Board Members that are on the phone, I mean 23 in the room and on the phone.

| 1  | (Roll call)   |
|----|---|
| 2  | MR. KATZ: Okay, so we have more than                |
| 3  | a quorum which is super. And let me just note for   |
| 4  | sessions where we have recusals because of          |
| 5  | conflicts of interest, for Savannah River Site we   |
| 6  | have Ms. Valerio will be recused from that,         |
| 7  | although it's not an action item. And for the LANL  |
| 8  | SEC, we have recusals from Mr. Schofield, Ms.       |
| 9  | Valerio, and Dr. Poston. So those are the only      |
| 10 | conflicts that relate to today's meeting. Josie,    |
| 11 | is there am I missing something? Oh, okay.          |
| 12 | Alright, so that takes care of roll call            |
| 13 | I think. And let me just then last note for folks   |
| 14 | on the line, everyone but the Board Members should  |
| 15 | mute your phones.                                   |
| 16 | We do have a public comment session that            |
| 17 | begins at 5:00 p.m. this evening and we'll start    |
| 18 | with people that are in the room, but then we'll    |
| 19 | move to people on the line. And for that you of     |
| 20 | course can have open lines because we'll be         |
| 21 | welcoming your comments too.                        |
| 22 | But during the meeting, everyone on the             |
| 23 | line who's from the public, please mute your phone. |

| 1  | If you don't have a mute button, just press *6 to   |
|----|---|
| 2  | mute your phone, leave it on mute please because    |
| 3  | then it will improve the audio. You'll be able to   |
| 4  | hear the meeting better.                            |
| 5  | And also Board Members, when you're not             |
| 6  | that are on the line, when you're not speaking      |
| 7  | to the group, please try to mute your phones when   |
| 8  | you can too to help for that. And Dr. Melius, it's  |
| 9  | your meeting.                                       |
| 10 | CHAIR MELIUS: You want to mention                   |
| 11 | signing up for                                      |
| 12 | MR. KATZ: Oh, yes. So we do have some               |
| 13 | people here now already. So for people here in the  |
| 14 | room, there's a sign-in sheet for attending the     |
| 15 | meeting and there's another sign-in sheet for       |
| 16 | making public comments. So please do, if you        |
| 17 | intend to make comments this evening, at some point |
| 18 | today sign you name to the sign-up sheet for        |
| 19 | comments.   |
| 20 | CHAIR MELIUS: Okay. Thank you, Ted.                 |
| 21 | And we'll start with Stu, NIOSH Program Update.     |

## 1 NIOSH Program Update 2. MR. KATZ: While Stu is getting ready, can I just ask someone, Paul or someone on the line, 3 can you hear us well? 4 5 I hear you very fine. MEMBER LOCKEY: 6 MR. KATZ: Okay, super. Thanks. 7 MR. HINNEFELD: Thank you, everyone. Stu Hinnefeld again and my normal update on the 8 9 program progress. I usually go through a few news items here such that I can to kind of get you up 10 to date on things that are going on in the program. 11 12 First comment about budget, I don't have any inside knowledge on the budget. 13 I only 14 know what is expected to happen. Right now, we are 15 operating on a continuing resolution that runs through December 7th or 9th, one of those two days. 16 17 And the current expectation from NIOSH 18 OD is that the Congress during its lame duck session 19 will pass another continuing resolution into the 20 first part of next year. I think the date I heard 21 was probably through March. And then the new 2.2 Congress would take up the actions upon Government for the remainder of next fiscal year. 23

| Τ  | I don't have a lot of insight about, of              |
|----|--|
| 2  | course no one has much insight about what will       |
| 3  | happen speaking about the budgeting process from     |
| 4  | last year. There were appropriations committees      |
| 5  | or appropriations subcommittees I guess from each    |
| 6  | House that submit what they call a markup, what they |
| 7  | believe the budget should be for various agencies.   |
| 8  | And our item, our line item was left unchanged from  |
| 9  | this year in both of those markups.                  |
| 10 | So that's an indication and we're                    |
| 11 | hopeful that we'll be able to continue on as we have |
| 12 | been with the same level of funding. But like I      |
| 13 | said, that's more of a hope than any inside          |
| 14 | knowledge.   |
| 15 | Other items I wanted to address is that              |
| 16 | we've been working with our partners at Department   |
| 17 | of Energy to obtain access to two reporting systems  |
| 18 | that we think will be helpful for us in our          |
| 19 | evaluation of sort of recent year activities at      |
| 20 | those sites.   |
| 21 | One is the non-compliance, it's not                  |
| 22 | Nevada Test Site, it's non-compliance tracking       |
| 23 | system, NTS. I should have checked that slide a      |

| 1  | little more carefully. Non-compliance Tracking        |
|----|---|
| 2  | System which unimportantly has the same initials,     |
| 3  | and the Occurrence Reporting and Processing           |
| 4  | System.   |
| 5  | Non-compliance Tracking System is a                   |
| 6  | database where DOE contractors voluntarily enter      |
| 7  | non-compliances with the regulatory scheme. When      |
| 8  | I was working for DOE it was only 10 CFR 835 which    |
| 9  | was the radiation protection regulation. There        |
| 10 | are other regulations also now that are included      |
| 11 | in the Non-compliance Tracking System.                |
| 12 | And so they, we believe that having                   |
| 13 | access, that we need to investigate those items to    |
| 14 | evaluate how sites were behaving in the more recent   |
| 15 | era. And it would be from, like, roughly 1995         |
| 16 | forward.  |
| 17 | In addition, the Occurrence Reporting                 |
| 18 | and Processing System which is not a voluntary        |
| 19 | system, which is a mandatory system gives, there      |
| 20 | are quite a lot of criteria that would require        |
| 21 | people to write what we call the ORPS report.         |
| 22 | A number of those are radiological                    |
| 23 | related and so we want to make sure we do a thorough, |

as thorough an investigation as we can with the 1 sites, what's been identified at these various 2 3 sites about compliances and to determine whether that doesn't have an effect on our judgement about 4 our ability to do dose reconstruction and how does 5 6 reconstruction should be, could be performed. 7 The next. item is strictly administrative. It has to do with either CDC or 8 9 HHS deciding that Live Meeting is probably not going to be supported anymore and we're going to 10 have to switch platforms for the meetings we've 11 12 been using to something called Skype for Business. 13 think we're going to have 14 training sessions on that coming up, and I think we're going to start with probably Subcommittees 15 16 or Work Groups to try that out. I believe it's going to work much the same. We'll just, it will 17 just -- we'll just have to learn the nuances of 18 19 that. 20 Covering quickly outreach our 21 activities since our last meeting. We did in fact have in September with the systems of our outreach 22 23 contractor, ATL International. We did conduct our

1 annual Dose Reconstruction Special Exposure Cohort Workshop. 2 3 We had a number of representatives. Most of the representatives that come to these are 4 representatives from local labor unions at the 5 6 covered facilities. Although we do have other interested folks as well sometimes. 7 And in that, we spend a couple days to 8 9 kind of ao through somewhat in depth dose reconstruction process, SEC process and really get 10 them acquainted with our website and where to look 11 12 for various kinds of information on our website. 13 We did participate with Joint Outreach 14 Task Group Meeting and two meetings in Iowa, one in Burlington and one at Ames. And the Joint 15 16 Outreach Task Group Annual Meeting was held on 17 November 14th. That's typically an in-person meeting, but it's a two hour meeting so we opted 18 to call in rather than fly in for a two hour meeting. 19 20 A that meeting we oftentimes set our 21 Joint Outreach Task Group agenda for the next year, 22 and this time we didn't. No one really offered up 23 a lot of sites they wanted to go to. I think

| 1  | there's some feeling we might go to California,      |
|----|--|
| 2  | possibly go to California if there's an SEC change   |
| 3  | to Santa Susana. But other than that, there were     |
| 4  | no other sites selected.                             |
| 5  | Okay, I'll get on to the statistics now.             |
| б  | I think you probably all have these in your packages |
| 7  | so I won't dwell on these. We're up to 46,000 cases  |
| 8  | from Labor so far. However, 44,000 have been         |
| 9  | returned, various breakdowns with the ones           |
| 10 | submitted and the ones where DRs are pulled.         |
| 11 | The number of cases we have in our shop,             |
| 12 | we typically have on the order of 200, 300 then are  |
| 13 | in the hands of the claimants, that's draft dose     |
| 14 | reconstruction in the hands of the claimants at any  |
| 15 | given time.  |
| 16 | Probability of Causation summary, I                  |
| 17 | think that remains pretty much at 28 percent         |
| 18 | successful, or 28 percent with PoCs greater than     |
| 19 | 50 percent based on dose reconstruction. When you    |
| 20 | add in the SEC, the numbers, the overall percentage  |
| 21 | of compensable claims is higher than 28 percent.     |
| 22 | These are the this was the records                   |
| 23 | request information from DOE that we reported, we    |

report at every meeting. This is somewhat 1 It's somewhat higher and the total 2 typical. 3 outstanding is somewhat higher than the last meeting and more than 68 for somewhat higher. 4 There's no particular site that really 5 is contributing too much of this, although at 6 Pantex there have been some personnel changes that 7 may have held up the issue a little bit. 8 9 not like we have a lot of outstanding cases from any given site. 10 And as we were doing our summary of our 11 first 20,000 as opposed to 5,000 or 10,000 and this 12 is how they break down. Most of the claimants are 13 14 back to DOL. A certain number, you know, most of 15 the claims with us are with us because they're 16 administratively closed and because the claimant 17 didn't complete, didn't sign the OCAS-1 form. 18 And so those, our statistics, the way we do this tally, they show up as with us because 19 20 they were closed when they were with us. And if 21 any of those claimants would return, you know, the 22 OCAS-1, then that case would be reopened and would 23 proceed.

| 1  | And then all the ones that are, have DRs           |
|----|--|
| 2  | waiting are returns, they've been returned to us   |
| 3  | fairly recently. So I believe that's it for me.    |
| 4  | If anyone has any questions, I'll be happy to try  |
| 5  | to answer any questions.                           |
| 6  | CHAIR MELIUS: Questions for Stu? I                 |
| 7  | have an important one. Is this the new official    |
| 8  | DCAS slide format for this meeting?                |
| 9  | MR. HINNEFELD: Well, we have some                  |
| LO | acceptable formats from CDC. And we're allowed to  |
| L1 | choose among about two or three or four acceptable |
| L2 | formats. And the person who makes the slides can   |
| L3 | exercise his or her creativity among those, among  |
| L4 | those formats.                                     |
| L5 | MEMBER BEACH: Nice change.                         |
| L6 | CHAIR MELIUS: So did you go first and              |
| L7 | others are following, or what's the                |
| L8 | MR. HINNEFELD: I suspect not. I                    |
| L9 | suspect my numbers, my reports since these numbers |
| 20 | are as of, generally they're as of the end of      |
| 21 | October because, you know, we were going to start  |
| 22 | on November 30th. So my information was available  |
| 23 | nretty early And so I think there's a little more  |

| 1  | time to be creative with my presentation than with   |
|----|--|
| 2  | others.  |
| 3  | CHAIR MELIUS: Just checking. Any                     |
| 4  | other important questions for Stu? Unimportant       |
| 5  | ones? On the line?                                   |
| 6  | MEMBER SCHOFIELD: I've got a question                |
| 7  | for him.   |
| 8  | CHAIR MELIUS: I'm sorry, go ahead,                   |
| 9  | Phil.  |
| 10 | MEMBER SCHOFIELD: Stu, I got a                       |
| 11 | question for you. On the occurrence reports, is      |
| 12 | that going to be available to you for all facilities |
| 13 | or just selective ones?                              |
| 14 | MR. HINNEFELD: What we're working on                 |
| 15 | is access in some fashion to all the facilities,     |
| 16 | or what we want to see. It may be that the           |
| 17 | Department of Energy will just provide them to us.   |
| 18 | We'll say we want all the ones from this. And my     |
| 19 | understanding is they'll be available for all the    |
| 20 | facilities.  |
| 21 | Now I haven't asked this specific                    |
| 22 | question about ORPS. I asked the specific            |
| 23 | question about NTS. NTS, the database                |

| 1  | administrator says there is no classified           |
|----|---|
| 2  | information in the NTS system.                      |
| 3  | So we should be able to just get those.             |
| 4  | And in fact, we have staff Members and our          |
| 5  | contractors and SC&A has staff members who have     |
| 6  | access to the Non-compliance Tracking System        |
| 7  | Database.   |
| 8  | ORPS has a different it's in a                      |
| 9  | different organization, has a different             |
| 10 | credentialing requirement in order to get access.   |
| 11 | And so heretofore they've only credentialed DOE     |
| 12 | employees and contractors. They've not              |
| 13 | credentialed other federal employees even, or       |
| 14 | other federal contractors.                          |
| 15 | So it's an open question about what kind            |
| 16 | of access that we'll get, although our counterparts |
| 17 | at ORPS at DOE have, are committed to providing     |
| 18 | us the kind of access that will allow us to do the  |
| 19 | search we need to do.                               |
| 20 | Now if there's classified information,              |
| 21 | we won't get that. I don't know if ORPS has it or   |
| 22 | not. But it should be for all facilities.           |
| 23 | MEMBER SCHOFIELD: Okay, thanks.                     |

| 1  | CHAIR MELIUS: Any Board Members on the              |
|----|---|
| 2  | line have questions? Okay, Stu. Give Stu a          |
| 3  | second and it's Greg, you're jumping the gun a      |
| 4  | little bit.   |
| 5  | MR. HINNEFELD: That's okay, I just                  |
| 6  | didn't know who was next.                           |
| 7  | CHAIR MELIUS: Jeff, DOL. A little                   |
| 8  | interagency war here. This is                       |
| 9  | MR. CRAWFORD: This is Frank Crawford                |
| 10 | on the line for DOL. I believe Stu is changing      |
| 11 | slides for me. Thanks very much for that, Stu.      |
| 12 | MR. RUTHERFORD: Actually, it's Mr.                  |
| 13 | Rutherford.   |
| 14 | MR. CRAWFORD: Ah, LaVon, great. I                   |
| 15 | will move through this                              |
| 16 | CHAIR MELIUS: But don't worry, we'll                |
| 17 | keep an eye on it.                                  |
| 18 | DOL Program Update                                  |
| 19 | MR. CRAWFORD: That's very good. I am                |
| 20 | watching through Live Meeting so I can at least see |
| 21 | the slides. We'll move through here fairly          |
| 22 | quickly. All of these slides are available on the   |

| Τ  | Board's website portion on the DCAS website. So     |
|----|---|
| 2  | if you don't see the numbers for very long, you can |
| 3  | always look them up. Next slide.                    |
| 4  | And I think we have to hit a button to              |
| 5  | get the numbers to come up. There we are. So        |
| 6  | almost \$10 billion in total compensation for Part  |
| 7  | B and E combined. If you add in the medical bills,  |
| 8  | next slide, you will see that we're at \$13 billion |
| 9  | in total compensation at this point.                |
| 10 | Next slide. So we see where the cases               |
| 11 | are. There are some dollar figures on this too,     |
| 12 | LaVon, if you want to hit the key. There we go.     |
| 13 | And the next slide. There's quite a discrepancy     |
| 14 | between the cases currently at NIOSH.               |
| 15 | Part of this is due to the data capture             |
| 16 | date. Ours is November 6th. I think Stu said his    |
| 17 | would be October 31st or thereabouts. And there     |
| 18 | are usually other reasons for these discrepancies.  |
| 19 | NIOSH shows a little over 1,200 cases active at     |
| 20 | their site. Next slide.                             |
| 21 | And there should be a pie chart. Here               |
| 22 | we are. So we're running about 35 percent           |
| 23 | approvals in cases with dose reconstructions and    |

| 1  | final decisions. Next slide.                       |
|----|--|
| 2  | And this information doesn't change                |
| 3  | quickly. Next slide. Yes, there will be a pie      |
| 4  | chart here. Yes, here I believe the SECs are       |
| 5  | included, and we see that we have 52 percent       |
| 6  | approvals under that.                              |
| 7  | And the next slide. Top four work                  |
| 8  | sites, no surprises here. Lawrence Livermore is    |
| 9  | fairly high for what is essentially a              |
| 10 | non-production site. It's more of a research       |
| 11 | establishment. But I think the SEC numbers are     |
| 12 | fairly substantial there.                          |
| 13 | MR. KATZ: Chris, can I just, this is               |
| 14 | Ted. If you would just actually orally speak the   |
| 15 | key points to your slides. Otherwise the           |
| 16 | transcript, people are going to have to refer to   |
| 17 | the slides to know actually what you're trying to  |
| 18 | tell them.   |
| 19 | So the top four slides here, Hanford,              |
| 20 | Savannah River Site, Y-12, and Lawrence Livermore. |
| 21 | MR. CRAWFORD: Of course.                           |
| 22 | MR. KATZ: Thanks.                                  |
| 23 | MR. CRAWFORD: I'll do that. Since                  |

| 1  | you just mentioned those, I'll go onto the next,     |
|----|--|
| 2  | but I'll pull in more detail. The next slide shows   |
| 3  | the chart of the monthly percentages of the new      |
| 4  | cases with DOE versus AWE sites broken out.          |
| 5  | These are fairly steady, as you see. And             |
| 6  | I think we can go on to the next slide. Now next     |
| 7  | slide is SEC petition site discussions. Those are    |
| 8  | site discussions that are expected to be brought     |
| 9  | up at this meeting.                                  |
| 10 | And what we're showing here are the                  |
| 11 | number of cases per site with the number of DRs      |
| 12 | already completed. Number of final decisions,        |
| 13 | approvals, and that sort of thing. I don't think     |
| 14 | there are any real surprises here.                   |
| 15 | There are quite a few sites under                    |
| 16 | discussion, Carborundum in Niagara Falls, Savannah   |
| 17 | River Site, Los Alamos Area 4 on this slide. You     |
| 18 | can see that Savannah River and Los Alamos are by    |
| 19 | far the largest here.                                |
| 20 | Next slide, please. And then we have                 |
| 21 | Hooker Electrochemical, a relatively small AWE       |
| 22 | site with 383 cases, of which 180 have been returned |
| 23 | by NIOSH with a DR We have however final             |

| 1  | decisions in 363. There is, I believe, an SEC that  |
|----|---|
| 2  | would account for the difference.                   |
| 3  | But the approvals are 73. And next                  |
| 4  | slide, please. For the DEEOIC outreach events, we   |
| 5  | have the list of the FY2016 events. I won't go      |
| 6  | through those individually. Next slide, please?     |
| 7  | This is constant information on the Joint           |
| 8  | Outreach Task Group and its members. Next slide     |
| 9  | please. This is the beginning of the list of the    |
| LO | FY2016. I won't go through these, as I said,        |
| L1 | individually. Next slide.                           |
| L2 | And next slide. And next slide please.              |
| L3 | Now here I have no details except as you see here,  |
| L4 | there's one scheduled at the moment, one joint      |
| L5 | outreach event at Simi Valley San Bernardino.       |
| L6 | Our budgets, like NIOSH, is under                   |
| L7 | review let's say. So we have been unable to make    |
| L8 | concrete plans at this point, but I am sure we'll   |
| L9 | have quite a few meetings this year once the budget |
| 20 | is straightened out.                                |
| 21 | The next slides are all standard                    |
| 22 | handout slides with some information about the      |
| 23 | program. But I won't go through those               |

| 1  | individually. So that concludes the                 |
|----|---|
| 2  | presentation. Now if there are any questions, I     |
| 3  | would be happy to answer them if I can.             |
| 4  | CHAIR MELIUS: Anybody, Board Members                |
| 5  | have questions? Board Members on the phone with     |
| 6  | questions?  |
| 7  | MEMBER LOCKEY: I'm good.                            |
| 8  | CHAIR MELIUS: Okay.                                 |
| 9  | MEMBER ZIEMER: Well, this is Ziemer.                |
| LO | Let me make one comment if I might. So Frank didn't |
| L1 | actually give this slide details in most of the     |
| L2 | cases. And I am concerned about the transcript in   |
| L3 | this case because people reading the transcript     |
| L4 | don't necessarily have access to the slides.        |
| L5 | I'm just wondering how we can                       |
| L6 | incorporate that information into the transcripts?  |
| L7 | That said, do you have any advice?                  |
| L8 | MR. KATZ: Paul, so we do actually                   |
| L9 | leave these, we leave these documents posted on the |
| 20 | NIOSH website with the transcript.                  |
| 21 | MEMBER ZIEMER: Oh, I know that. I                   |
| 22 | know that.  |
| 23 | MR. KATZ: Yes.                                      |

23

| 1  | MEMBER ZIEMER: It's just                         |
|----|--|
| 2  | MR. KATZ: So people can in the future            |
| 3  | download the presentation as well as the         |
| 4  | transcript. Does that Paul, does that address    |
| 5  | your concern?                                    |
| 6  | MEMBER ZIEMER: Well, I was just                  |
| 7  | concerned about the transcript's own, sort of,   |
| 8  | viability that forces people to go to outside    |
| 9  | documents to supplement it. That was just a      |
| 10 | concern.   |
| 11 | MR. CRAWFORD: Dr. Ziemer, this is                |
| 12 | Frank Crawford.                                  |
| 13 | MEMBER ZIEMER: Yes, Frank?                       |
| 14 | MR. CRAWFORD: Like Stu's slides, ours            |
| 15 | are filled with numbers. So I was a little       |
| 16 | reluctant to read all the numbers.               |
| 17 | MEMBER ZIEMER: Yes, I understand                 |
| 18 | that. Just a concern about completeness of       |
| 19 | transcripts. I'm not sure how to find a happy    |
| 20 | medium on that. But that's fine.                 |
| 21 | CHAIR MELIUS: Thank you. Thank you.              |
| 22 | Any more questions or comments. Okay. Thank you. |
| 23 | And Greg, now you can. I know you're anxious.    |

| 1  | MR. LEWIS: I was already ready.                     |
|----|---|
| 2  | CHAIR MELIUS: Maintain that                         |
| 3  | adrenaline rush and the focus.                      |
| 4  | DOE Program Update                                  |
| 5  | MR. LEWIS: Alright, good morning,                   |
| 6  | everyone. I'm Greg Lewis from the Department of     |
| 7  | Energy, the Office of Worker's Screening and        |
| 8  | Compensation Support which is within the Office of  |
| 9  | Health and Safety at DOE.                           |
| 10 | Pat Worthington is also listed up here.             |
| 11 | She was planning to come but at the last minute had |
| 12 | to, actually is traveling for another meeting. So   |
| 13 | I'm sure she'll be at the next meeting. But you've  |
| 14 | got me instead.                                     |
| 15 | And actually before I get into this,                |
| 16 | I'll just address two of the items that Stu brought |
| 17 | up in his presentation. One was the gaining access  |
| 18 | to the ORPS database.                               |
| 19 | It's been a bit challenging just                    |
| 20 | because, you know, I think Stu kind of alluded to   |
| 21 | it, the folks that administer the ORPS database     |
| 22 | weren't really familiar with the program. They      |

1 also hadn't given access to another federal agency or other federal contractors. 2 3 That's not to say they can't, but it was just kind of unfamiliar to them so they had a lot 4 And they're also in the middle of 5 of questions. working on new, their new regulation for ORPS. So 6 they've been, you know, pretty busy with that. So 7 it's been hard to get their attention. 8 9 I think they just finished that up, and I know we just had a conference call with them 10 yesterday, those folks. So I'm hopeful that we'll 11 12 be able to settle that and get either full access or enough access to meet NIOSH's needs shortly. 13 14 And then the other item, the number of late claims, I believe it was 20 and 300-something 15 16 that are outstanding that are in play, and then 20 of those are late. I believe, I actually believe 17 that the bulk of those are Pantex. I could, at 18 19 least a significant number are Pantex. 20 And we are working with them. 21 gotten federal management down there involved. The 22 challenge there was the change in contract, the contract for both Y-12 and for Pantex is now a 23

| 1  | single contract managed by a single federal office. |
|----|---|
| 2  | So everything changed down there with that.         |
| 3  | And oddly enough, one of the sites that             |
| 4  | we had to work with quite a bit last year on late   |
| 5  | claims was Y-12 and we've gotten those resolved.    |
| 6  | But now of course we're having some issues with     |
| 7  | Pantex.   |
| 8  | And as Stu said, a lot of it is staff               |
| 9  | changeover because they're kind of reorganizing     |
| 10 | things and moving around who does what. The person  |
| 11 | in the group that was responsible for EEOICPA is    |
| 12 | handing it off to another group, and that handoff   |
| 13 | has been a bit slow which is why we've engaged the  |
| 14 | federal leadership at the site office down there.   |
| 15 | So we believe we're on the way toward               |
| 16 | resolving that and we'll continue to monitor it     |
| 17 | closely.  |
| 18 | So as many of you have heard before, our            |
| 19 | core mandate is to work on behalf of program        |
| 20 | claimants to ensure that all available worker and   |
| 21 | facility records are provided to DOL, NIOSH, and    |
| 22 | their respective advisory boards.                   |
| 23 | And we do this in three ways. We do the             |

individual claims when someone applies to the 1 DOL or NIOSH will request their records 2 3 from us and we try to provide them as quickly and completely as we can. 4 We also work with DOL and NIOSH on large 5 6 scale site characterization projects. And then we 7 also work on research into facility coverage, 8 primarily for the smaller AWEs, but you know, 9 whatever comes up we'll try to do some research and get the answer. 10 I've revised this a little bit, you 11 know, for those of you scoring at home. 12 These numbers are slightly different than the numbers 13 14 that have been on for a while. I probably actually 15 should have updated this a while ago. You know, 16 as you can see, this is about 18,000 and it used 17 to be about 16,000. 18 A lot of that is because of SERT and how 19 SERT counts things. Everything that goes over and 20 back is counted. So these are supplemental 21 requests, these are requests where, you know, like 22 at Oak Ridge, things often go to all three sites because we're not sure if there was crossover 23

between the three. 1 So I don't know that we're actually 2 3 seeing overall a larger volume of requests, we're just counting it a little bit more precisely. 4 So I don't want to say it's a larger workload. 5 this is the numbers in SERT and so I want to stick 6 by that. 7 And then because of the SERT system, 8 9 which I think I've spoken about before but I should clarify, that's our Secure Electronic Records 10 11 Transfer system. 12 So I want to say about three years ago now, maybe even four, time flies, we set up a system 13 that instead of sending, you know, we started 14 sending paper way back when and then we moved to 15 16 sending CDs with that on it over to DOL and NIOSH. 17 moved to encrypted thumb Then we 18 And then the final step was to set up an 19 electronic system where everyone can loa 20 securely through, you know, encrypted measures 21 with two factor authentication and all the cyber 22 security requirements. 23 And, you know, DOL, NIOSH, and DOE can

send our records back and forth. The requests come 1 over to us on SERT and we respond on SERT. 2 3 primary reason was, you know, for data security, for transparency, and for quickness. 4 But one of the byproducts of that is we 5 have a lot more data and can count things. 6 So now 7 that we're a number of years into the SERT system, we've been trying to set up some different measures 8 9 and metrics. And one of those that we've been able 10 to do is the size of the records packages. 11 12 we've always, kind of anecdotally, you know, from the subcontractor employees that were there for a 13 14 brief period of time we may not have any records And then I've personally seen packages that 15 on. 16 were over 3,000 pages. So we knew we had a wide 17 range. But this actually can, you know, can put 18 a little bit better number on that in terms of 19 20 averages. So for employment verification, the 21 average number of pages is 14. And even that's a 22 little misleading because the original request is 23 probably something like five pages and we, you

know, fill that out and then attach some other 1 additional pages. 2 3 So you know, it's probably in terms of what we add, it's probably eight or nine pages on 4 For a NIOSH request it's 50 pages. 5 average. 6 the for a DAR for the Department of Labor, it's 150 7 And then if you add that up for your typical individual that has all three types of requests, 8 9 we're providing just over 200 pages of information on average. Again, that's, you know, it can vary 10 significantly. 11 12 And one word of caution, some of that's You know, in the DAR we're providing 13 duplicative. 14 some of the same dosimetry information that was in 15 the NIOSH and probably, you know, a few of the pages 16 that were in the employment verification. 17 So you know, that's not 200 original pages on each individual. But, you know, the DAR 18 is pretty reflective of providing at least on 19 20 average 150 pages per person typically. 21 then for individual records, And 22 claimants often worked at multiple sites, multiple 23 contractors. They could have been fed

| 1  | contractor or subcontractor throughout their         |
|----|--|
| 2  | career. So we have to go to quite a few different    |
| 3  | places, different sites.                             |
| 4  | You know, you could have to check up to              |
| 5  | 40 different sources for an individual,              |
| 6  | particularly if they had a 30-year career, multiple  |
| 7  | different entities. And that kind of plays into      |
| 8  | the we could respond with zero pages or up to 3,000. |
| 9  | It really depends on the employee's circumstance.    |
| 10 | And then response time. I just used                  |
| 11 | FY16 numbers so this would be through September      |
| 12 | 30th of '16. We responded to 17,674 out of 18,621    |
| 13 | records requests in under 60 days. So we have a      |
| 14 | 95 percent on-time response rate.                    |
| 15 | And again, that five percent is                      |
| 16 | typically within a few sites, and it's not always    |
| 17 | the same. You know, it's kind of rotating            |
| 18 | depending on what's going on, what kind of issues    |
| 19 | we're running into.                                  |
| 20 | The bulk of the sites actually have                  |
| 21 | little to no responses outstanding or that are late  |
| 22 | at any given time. So if you see last year, you      |
| 23 | know, I put a couple examples there. K-25, six       |

late out of 2,112. Richland, six late out of 1 And Savannah River, zero out of 1,316. 2 1,564. 3 So some of the sites have a very good response rate, and then others that we're trying 4 to work on to get back where they should be. 5 6 overall, we have a 95 percent on-time response 7 rate. And then the large-scale research 8 9 projects. You know, here's a few that we've been responding to. Some of these are more active than 10 But you know, here are some of the sites 11 12 that we were then working with NIOSH on recently for SEC and/or Site Profile updates, things like 13 14 that. And actually, I could read these off if 15 16 you would like. We've got Hanford, PNNL, Savannah River, Nevada Test Site, or currently the Nevada 17 National Security Site, Los Alamos National Lab, 18 Sandia National Lab, Idaho National Lab, Lawrence 19 20 Livermore National Lab, Oak Ridge National Lab, and the Area IV of the Santa Susana Field Lab. 21 And then we do document reviews. 22 23 I always point out that, you know, we review final

| 1  | NIOSH products and documents, papers, things like    |
|----|--|
| 2  | that in which we have a very consistent review time. |
| 3  | We also review the source documents                  |
| 4  | that come out of the DOE sites which is not as       |
| 5  | consistent because, you know, it can vary widely     |
| 6  | in terms of the volume, the level of difficulty,     |
| 7  | whether they're very dense documents with quite a    |
| 8  | bit of classified information or lighter documents   |
| 9  | that are assumed to be unclassified but we need to   |
| 10 | check just in case.                                  |
| 11 | So our document reviews out at the sites             |
| 12 | vary, you know, a little more widely. But in terms   |
| 13 | of the final NIOSH products, we do them typically    |
| 14 | eight working days.                                  |
| 15 | And then I've just got a little note on              |
| 16 | our facility research. Our database can be found     |
| 17 | at the link that's shown on the page. And you know,  |
| 18 | every year we do typically around five or so sites   |
| 19 | or between five and ten we'll be reviewing for site  |
| 20 | coverage.  |
| 21 | And again, these are typically the                   |
| 22 | smaller atomic weapons employers that did work back  |
| 23 | in the '40s and '50s. And I think both Stu and       |

Chris mentioned the outreach that we're doing. 1 We did participate in the annual JOTG 2 And I think as Chris said in his DOL 3 meeting. presentation, the next meeting is tentatively 4 scheduled for the Los Angeles area, for Area IV, 5 6 but we don't have a specific time frame on that. 7 It's somewhat dependent on the SEC progress. And I'll mention that my office and Pat 8 9 Worthington participated in the National Day of Remembrance earlier this year at the end of 10 We participated in an event in Las Vegas 11 12 but there were events around the country celebrating the work that nuclear weapons workers 13 14 did and their contribution they made to this 15 country. 16 There was Senate Resolution 560, and I'm not going to read the text. But again, this 17 is the eighth year, I think, or ninth. 18 it's been going for guite some time now and it's 19 20 always something that our office takes pride in 21 participating in, an opportunity to thank the workers for their service and their contribution. 22 And then I'll mention our Former Worker 23

| 1   | Medical Screening Program. It serves all former      |
|-----|--|
| 2   | workers at all DOE sites. That's federal,            |
| 3   | contractor and subcontractor workers at all DOE      |
| 4   | sites.   |
| 5   | It provides a free medical screening to              |
| 6   | try to identify occupational illnesses in their      |
| 7   | early stages that lead to successful treatment.      |
| 8   | And for this area, the Johns Hopkins program would   |
| 9   | typically cover most workers, but we also have a     |
| LO  | supplemental screening program and a building        |
| L1  | trade screening program for construction workers     |
| L2  | who could cover folks as well.                       |
| L3  | Information can be found at our                      |
| L4  | website, and we have a brochure and an annual report |
| L5  | that I posted a link to on our PowerPoint as well    |
| L6  | for your information. And that's it. Are there       |
| L7  | any questions?                                       |
| L8  | CHAIR MELIUS: Dave?                                  |
| L9  | MEMBER KOTELCHUCK: Just a comment                    |
| 20  | that   |
| 21  | CHAIR MELIUS: Dave?                                  |
| 22  | MR. KATZ: I just have a note from                    |
| ) 3 | someone in the public on the line that they're       |

| 1  | having a hard time hearing when other people speak,  |
|----|--|
| 2  | so speak right into the mic, please.                 |
| 3  | MEMBER KOTELCHUCK: Thank you. That                   |
| 4  | fifth slide about the size of the record packages    |
| 5  | is, I don't believe you've shown it before, and it   |
| 6  | was useful, and thanks for doing that.               |
| 7  | MR. LEWIS: Yes, that was new. That's                 |
| 8  | kind of a because of the SERT system we have some    |
| 9  | increased reporting ability. And there's a few       |
| 10 | other things that we're working on too, so we may    |
| 11 | be adding as well. But I can keep that one on        |
| 12 | there.   |
| 13 | MEMBER KOTELCHUCK: Yes, that one was,                |
| 14 | it's helpful for us Board Members. And also you      |
| 15 | might want to consider doing it by the median rather |
| 16 | than the average just so you don't weight it by some |
| 17 | very, very large reports.                            |
| 18 | MR. LEWIS: Yes. Well, and by a lot                   |
| 19 | of, you know, there's unfortunately some zeros in    |
| 20 | there as well. So I'll see. I'm honestly not         |
| 21 | certain if we can do that. I don't see why we        |
| 22 | can't, but I'll ask the folks that administer the    |
| 23 | database if they can pull that as well.              |

| 1  | CHAIR MELIUS: Any other Board Member                |
|----|---|
| 2  | questions? Board Members on the phone, questions    |
| 3  | or comments? Are you just plugging yourself in,     |
| 4  | Brad?   |
| 5  | Well, I'll bring this up. We continue               |
| 6  | to have delays at Savannah River, getting           |
| 7  | information. This is not on cases but on, I guess,  |
| 8  | what you would call bigger projects. And I just     |
| 9  | want to make sure that that's getting attention and |
| 10 | being addressed.                                    |
| 11 | MR. LEWIS: Well, I'll, you know, I                  |
| 12 | talked with someone about that yesterday. I know    |
| 13 | there was an issue getting, I think it was Joe,     |
| 14 | access to a site database, something that he had    |
| 15 | access to and it lapsed or they had to redo it or   |
| 16 | something like that. And I guess that took a        |
| 17 | little bit longer than expected.                    |
| 18 | Honestly, other than that, I haven't                |
| 19 | been directly engaged. So if there's, you know,     |
| 20 | requests that are outstanding or overall slowness,  |
| 21 | I would be happy to get involved and see what I can |
| 22 | do to pick up the pace. But I hadn't really been    |
| 23 | directly approached or engaged, so I would be happy |

| 1  | to get involved.                                   |
|----|--|
| 2  | CHAIR MELIUS: Well, we have a                      |
| 3  | presentation later on Savannah River where it      |
| 4  | appears that either somebody was overly optimistic |
| 5  | about their timing or was there are continued      |
| 6  | delays because it appears to be delaying some of   |
| 7  | our reports that DCAS is preparing.                |
| 8  | So I mean, I don't want to get into the            |
| 9  | details or whatever right now. But if you could    |
| 10 | consult with NIOSH and SC&A and just make sure we  |
| 11 | can, doing what can be done to expedite this.      |
| 12 | I mean, it may be great that they have             |
| 13 | 100 percent compliance with individual requests,   |
| 14 | but you know, some of those could very well go for |
| 15 | naught given that there's an SEC under             |
| 16 | consideration there. Multiple SECs. And so         |
| 17 | we're providing data that may not really be        |
| 18 | necessary.   |
| 19 | MR. LEWIS: Yes, absolutely. You                    |
| 20 | know, the SEC's very important to us and we will   |
| 21 | see what we can do to remove any delays or         |
| 22 | impediments to getting the information out.        |
| 23 | CHAIR MELIUS: Okay, thank you.                     |

| 1  | MEMBER BEACH: I have a question about               |
|----|---|
| 2  | I know Sandia, it's on. Sandia's a lower            |
| 3  | priority site. But how are things moving there?     |
| 4  | I know that there was some trouble with cooperation |
| 5  | there. Can you update on that at all?               |
| 6  | MR. LEWIS: You know, my understanding               |
| 7  | is I haven't really been engaged very much at all   |
| 8  | at Sandia. That's not to say that, you know,        |
| 9  | typically I get approached when something is not    |
| 10 | running smoothly.                                   |
| 11 | You know, as long, either if there                  |
| 12 | aren't any requests or if the requests are flowing  |
| 13 | back and forth and everyone's satisfied with the    |
| 14 | speed, the completeness, the performance of our     |
| 15 | sites, I'm typically not involved.                  |
| 16 | So I have not been approached or                    |
| 17 | involved on Sandia. So if there is an issue, I      |
| 18 | would be happy to get involved. But I'm not aware   |
| 19 | of too much.  |
| 20 | CHAIR MELIUS: I think LaVon has an                  |
| 21 | update on that that he'll present.                  |
| 22 | MR. HINNEFELD: Well, LaVon just told                |
| 23 | me that we've not had any issues recently with      |

| 1  | Sandia.   |
|----|---|
| 2  | MEMBER BEACH: Okay.                                 |
| 3  | MR. HINNEFELD: You know, there were                 |
| 4  | some previously, but not lately.                    |
| 5  | CHAIR MELIUS: We have some dates,                   |
| 6  | actually coming up.                                 |
| 7  | MEMBER BEACH: Okay.                                 |
| 8  | CHAIR MELIUS: I always read LaVon's                 |
| 9  | report very carefully. It's the first one I read,   |
| 10 | just before the plane landed. Okay. Anyway,         |
| 11 | nothing else? Thank you very much, Greg.            |
| 12 | MR. LEWIS: Thank you.                               |
| 13 | CHAIR MELIUS: Okay. We now turn to,                 |
| 14 | this is a review of the Hooker Electrochemical Site |
| 15 | Profile. Henry?                                     |
| 16 | Review of Hooker Electrochemical Site Profile       |
| 17 | MEMBER ANDERSON: So our Committee has               |
| 18 | been working on the Site Profile for Hooker         |
| 19 | Electrochemical Company in Niagara Falls for some   |
| 20 | time. And we're now at a point to be able to ask    |
| 21 | the Board to approve our reports and close it out.  |
| 22 | So just to go through very quickly, we,             |

| 1  | Hooker operation, they processed C-2 slag from       |
|----|--|
| 2  | electrometallurgical company from the period of      |
| 3  | July 11th, '44 through January 15th, '46.            |
| 4  | That was a byproduct of bomb reduction               |
| 5  | at Electromet and Hooker treated the slag to         |
| 6  | increase uranium content, and then upgraded slag     |
| 7  | was returned to Electromet. So you can see it was    |
| 8  | a two-year span in there, or less than two years     |
| 9  | that this activity was ongoing.                      |
| 10 | As far as our Site Profile, you can see              |
| 11 | the first Appendix AA was in 2007. It was,           |
| 12 | TBD-6001 was issued at that time. And then in        |
| 13 | 2010, an SEC Petition Evaluation Report was issued   |
| 14 | by NIOSH. And in September of 2010, SC&A presented   |
| 15 | a review of the Appendix AA at that time.            |
| 16 | And then in January of 2011, it provided             |
| 17 | a focused review on other parts of that site review. |
| 18 | In April, a tech TBD revised Revision 00 for Hooker  |
| 19 | was issued. And it was at that point that the Site   |
| 20 | Profile replaced Appendix AA and went out of the,    |
| 21 | what is it? And TBD was then, we had a Revision      |
| 22 | 1 in 2011.   |
| 23 | Thirteen, then, when that revision came              |

out, asked SC&A to review that revision, and they 1 came back to us in 2013 with six findings that our 2 3 committee then discussed. In December 2015 NIOSH issued Revision 4 So you can see it's been under 5 2 of that TBD. 6 review for some time, but it's been sitting out there and we wanted to see if we couldn't close it 7 8 out as quickly as possible. In June of 2016, we had a review of 9 Revision 2 to the TBD again by SC&A. July, our Work 10 Group reviewed all the findings and determined that 11 12 three were closed and put two in abeyance pending the final revision of the TBD and Finding 4 remains 13 14 open. September, revision three of the TBD 15 16 issued. And in November, SC&A reviewed was revision three and sent that to our URAWE Work 17 Group. 18 So here's the SEC determination. 19 20 won't read this through, but this again goes back to the determination in 2012. And you can see here 21 22 that the primary problem cited by the review panel, 23 this original review was challenged by employees.

| 1  | It went to a review panel. And that                 |
|----|---|
| 2  | review panel, their concern was the use of          |
| 3  | surrogate air sampling data to construct internal   |
| 4  | doses, and the TBD can now be used only to estimate |
| 5  | external doses during the operating period for      |
| 6  | non-specified cancer claims and during the          |
| 7  | residual period for both internal and external      |
| 8  | doses for all cancer.                               |
| 9  | Finally, just to go through the                     |
| 10 | resolution of the six findings here, Finding 1,     |
| 11 | NIOSH should review assumptions regarding the       |
| 12 | composition of the slag.                            |
| 13 | You can see here they did that and                  |
| 14 | amended that to change the composition of the slag  |
| 15 | that was coming in as well as the uranium           |
| 16 | concentration of the slag going out. And once we    |
| 17 | got that updated information, we felt we were       |
| 18 | satisfied that Finding 1 had been resolved.         |
| 19 | Finding 2 is examining the position                 |
| 20 | that external exposures are based on slag input to  |
| 21 | the leeching process ten times per month. It's      |
| 22 | possible that external exposures are understated.   |
| 23 | Again, NIOSH reviewed this, discussed               |

it with us, and they revised the throughput from 1 ten times per month to eighty-nine times. 2 3 on that revision, the Work Group was satisfied that Finding 2 was resolved. 4 Finding 3, the basis for assuming 5 6 internal exposure from the slag dust occurred five SC&A felt that needed to be 7 percent of the time. 8 reexamined, as does the assumption that the 9 concentrate contained two percent uranium. It appears that the exposure time was 10 understated by a factor of five and the amount of 11 12 uranium in the concentrate was understated by at least a factor of 2.5. Based on the new data, NIOSH 13 14 revised the assumptions in the TBD. And based on 15 satisfied that Finding that, we were 16 resolved. Finding 4 was a review of the ingestion 17 18 intake to ensure that it was calculated in a manner consistent with the calculation of inhalation 19 20 intake. This was not addressed in Revision 2. 21 And at our meeting, NIOSH agreed that 22 ingestion needed to be addressed. and 23 addressed Revision 3 of the TBD, the impact of the

| 1  | Finding 4.   |
|----|--|
| 2  | And Finding 5, we asked that NIOSH                   |
| 3  | confirm that the correct units of measurement were   |
| 4  | cited in Tables 2 and 3, or Tables 3 and 4 in the    |
| 5  | NIOSH 2015-B revision. Typographic errors, NIOSH     |
| 6  | agreed to correct those in the next revision.        |
| 7  | And therefore, resolution of the                     |
| 8  | finding is placed in abeyance waiting for the next   |
| 9  | actual text or written update. But by-and-large,     |
| 10 | there's agreement between the committee and NIOSH    |
| 11 | to see how we can move forward.                      |
| 12 | The last finding was Finding 6 that                  |
| 13 | units of measure, the photon dose conversion         |
| 14 | factors in Table 4, determine if they were correct.  |
| 15 | Then the companion text needed to be revised to      |
| 16 | discuss exposure rates rather than dose rates.       |
| 17 | And we got an email dated July 25th,                 |
| 18 | 2016 that confirm that the units of measure in Table |
| 19 | 4 and the Revision 1 of TBD now Table 5 you can see  |
| 20 | as we're going through the various revisions and     |
| 21 | numbers and the phraseology here gets a bit          |
| 22 | confusing. I'm going through it quickly.             |
| 23 | But we have sorted it all out. And                   |

| 1  | finding six is in abeyance again until the new      |
|----|---|
| 2  | revision of the TBD is where I would hope this will |
| 3  | be the final revision will be issued. And so SC&A   |
| 4  | reviewed it and the Rev 3 addresses the impact also |
| 5  | of Finding 6.                                       |
| 6  | So that basically here's the set of                 |
| 7  | references. And we're just asking the Board that    |
| 8  | we've been through this process. You can see it     |
| 9  | is important to have these documents carefully      |
| 10 | reviewed as we saw the numbers of the number of     |
| 11 | cases being reviewed, and the core basis for those  |
| 12 | risk determinations are based on the TBD.           |
| 13 | And therefore, even though some of the              |
| 14 | changes were there and the reviewers knew about     |
| 15 | them and they have adjusted them, we now feel we    |
| 16 | will have a TBD that is fully updated and has been  |
| 17 | very, very carefully reviewed to be corrected.      |
| 18 | Any questions?                                      |
| 19 | CHAIR MELIUS: Yes, I'm a little                     |
| 20 | confused.   |
| 21 | MEMBER ANDERSON: Well, that's to be                 |
| 22 | expected, James.                                    |
| 23 | CHAIR MELIUS: Well, it's pretty                     |

| 1  | obvious too here.                                   |
|----|---|
| 2  | MEMBER ANDERSON: Right, yes.                        |
| 3  | CHAIR MELIUS: This and other                        |
| 4  | meetings.   |
| 5  | MEMBER ANDERSON: Yes.                               |
| 6  | CHAIR MELIUS: So just on the                        |
| 7  | chronology, so on November 21st, SC&A's review of   |
| 8  | TBD Revision 3 was submitted as being edited. I     |
| 9  | don't quite understand how that reconciles with the |
| 10 | footnote that you have on, like, for Finding 5      |
| 11 | addressed in I'm just trying to understand, did     |
| 12 | the Work Group see the final                        |
| 13 | (Simultaneous speaking.)                            |
| 14 | MEMBER ANDERSON: I think this was in                |
| 15 | addition to the slide from when I first saw it.     |
| 16 | Yes, that was a late edition I think.               |
| 17 | (Off microphone comments)                           |
| 18 | MR. KATZ: Hold on. I don't think that               |
| 19 | mic's on. Thank you, Craig.                         |
| 20 | MR. STIVER: Okay. We were in the                    |
| 21 | process of finalizing a review, it's going through  |
| 22 | copy editing, just about we actually ended up       |
| 23 | sending it out to the Work Group later that day on  |

| Τ  | the 21st just because the timing was oif.          |
|----|--|
| 2  | And the Work Group hadn't had a chance             |
| 3  | to see the report. We didn't feel it was           |
| 4  | appropriate to include our actual findings in this |
| 5  | particular presentation. So it was just a matter   |
| 6  | of, you know, it's now in the Work Group's hands.  |
| 7  | I would imagine, you know, Jim Neton and           |
| 8  | his people wanted a chance to look at the Finding  |
| 9  | 4 issue, and then we would have some sort of a     |
| 10 | teleconference or a technical call to work that    |
| 11 | out.   |
| 12 | CHAIR MELIUS: So are we really closing             |
| 13 | out  |
| 14 | MEMBER ANDERSON: It doesn't sound                  |
| 15 | like we are.                                       |
| 16 | MR. STIVER: The only thing left is                 |
| 17 | Finding 4 really. And so that's just we can't      |
| 18 | close it out today, obviously. It would have to    |
| 19 | be after another Work Group teleconference.        |
| 20 | CHAIR MELIUS: Does that fit with your              |
| 21 | understanding, Henry? I'm just trying to           |
| 22 | MEMBER ANDERSON: Yes.                              |
| 23 | CHAIR MELIUS: Okay.                                |

| 1  | MEMBER ANDERSON: There was this                  |
|----|--|
| 2  | last-minute flurry around Thanksgiving.          |
| 3  | CHAIR MELIUS: Yes, which is                      |
| 4  | MEMBER ANDERSON: Documents that we               |
| 5  | haven't had so we will not sorry. So I'm not     |
| 6  | asking you to vote anything today. But we are    |
| 7  | very, very close.                                |
| 8  | CHAIR MELIUS: Well, no. Why don't                |
| 9  | we, I think we can reach closure, it's up to the |
| LO | Board, on all the findings except Finding 4. And |
| L1 | then you have the revision quick meeting or      |
| L2 | something.                                       |
| L3 | MEMBER ANDERSON: Yes.                            |
| L4 | CHAIR MELIUS: And then probably have             |
| L5 | a conference call. We can just close out Finding |
| L6 | 4.   |
| L7 | MEMBER ANDERSON: Sounds good.                    |
| L8 | CHAIR MELIUS: I mean, when that's                |
| L9 | ready or at a Board Meeting. So yes. So I mean,  |
| 20 | let's  |
| 21 | (Simultaneous speaking.)                         |
| 22 | MEMBER ADNDERSON: Committee, okay.               |
| 23 | CHAIR MELIUS: all this again. We                 |

| 1  | have a quorum, let's take advantage.               |
|----|--|
| 2  | MEMBER ANDERSON: Yes, fine. Is that                |
| 3  | okay with the rest of the                          |
| 4  | MEMBER CLAWSON: Sure.                              |
| 5  | CHAIR MELIUS: And are there other                  |
| 6  | questions about either the process or about some   |
| 7  | of the other findings?                             |
| 8  | MEMBER BEACH: Is it just four, or is               |
| 9  | it four and five for this TBD 3? I'm not quite     |
| 10 | clear on that. It looks on the slides like four    |
| 11 | and five are affected by that.                     |
| 12 | MR. STIVER: Actually, only Finding 4.              |
| 13 | I need to give a spoiler alert, but Finding 5 and  |
| 14 | 6 were in abeyance.                                |
| 15 | MEMBER BEACH: Okay.                                |
| 16 | MR. STIVER: Those have been                        |
| 17 | adequately addressed in revision three. Finding    |
| 18 | four is the only outstanding that still needs some |
| 19 | discussion.  |
| 20 | CHAIR MELIUS: Okay. Any other                      |
| 21 | questions? Board Members on the phone, have we     |
| 22 | thoroughly confused you?                           |
| 23 | MEMBER ZIEMER: No, I think it's clear              |

| 1  | now.   |
|----|--|
| 2  | CHAIR MELIUS: Okay.                                |
| 3  | MEMBER ANDERSON: When we have these                |
| 4  | revisions of slides, we should put revised data    |
| 5  | somewhere because these changed very recently.     |
| 6  | CHAIR MELIUS: Yes. But especially                  |
| 7  | with the holiday thrown in.                        |
| 8  | MEMBER ANDERSON: Yes, sorry about                  |
| 9  | that.  |
| 10 | CHAIR MELIUS: Quick follow up meeting              |
| 11 | and so forth. Okay. So if not, then can we have    |
| 12 | a motion? Well, I think we have a motion from the  |
| 13 | Work Group for everything but, hold off on finding |
| 14 | four. Do that. And so motion. And any further      |
| 15 | comment? I think we can go ahead, I think we can   |
| 16 | do it by a voice vote?                             |
| 17 | MEMBER ANDERSON: Yes, yes, sure.                   |
| 18 | CHAIR MELIUS: All in favor say aye.                |
| 19 | (Chorus of ayes.)                                  |
| 20 | CHAIR MELIUS: All opposed?                         |
| 21 | (No response.)                                     |
| 22 | CHAIR MELIUS: Abstain?                             |
| 23 | (No response.)                                     |

| _  | Board Work Bession                                 |
|----|--|
| 2  | CHAIR MELIUS: Okay, thank you. So we               |
| 3  | have a break scheduled coming up. It's 9:30, and   |
| 4  | we need to start right at 10:15. So what I would   |
| 5  | propose is we try to get a couple of items done,   |
| 6  | sort of Board business work session items done.    |
| 7  | Then we'll break by 9:45, so we'll take our break  |
| 8  | then. And let's start with the meetings because    |
| 9  | that's a good time for that to, anybody needs to   |
| 10 | check their calendars or                           |
| 11 | MR. KATZ: Yes, please. Of course,                  |
| 12 | do.  |
| 13 | CHAIR MELIUS: correspond with                      |
| 14 | people that aren't on the phone or whatever.       |
| 15 | MR. KATZ: Yes.                                     |
| 16 | CHAIR MELIUS: So we need a location                |
| 17 | for the March meeting which, Ted, can you remind   |
| 18 | us?  |
| 19 | MR. KATZ: Right. We have a March                   |
| 20 | meeting. I'll give you the date in a second, March |
| 21 | 22nd and the 23rd. But we don't have a location.   |
| 22 | We talked about some locations already that are    |
| 23 | possibilities I think.                             |

1

Board Work Session

| 1  | One is Chicago area for Argonne East.                |
|----|--|
| 2  | We have a Work Group for Argonne East now. They      |
| 3  | haven't met yet, and I don't know who's the Chair    |
| 4  | for Argonne East. Is that Brad?                      |
| 5  | MEMBER BEACH: Brad.                                  |
| 6  | MR. KATZ: Brad. So I don't, the                      |
| 7  | status in terms of when we're ready to meet, I don't |
| 8  | know who we're waiting on, documents from DCAS or    |
| 9  | SC&A.  |
| 10 | (Off microphone comments)                            |
| 11 | MR. KATZ: But I think some of the                    |
| 12 | thought about Argonne East too was that this is at   |
| 13 | an early point. Might be a good opportunity to get   |
| 14 | information from people locally there, and that      |
| 15 | might be a good argument for going to the Chicago    |
| 16 | area. Right? That's what we discussed at the         |
| 17 | last Board meeting.                                  |
| 18 | (Off microphone comments)                            |
| 19 | MR. KATZ: Well, we could also arrange                |
| 20 | for that. Yes, we haven't done one of those in a     |
| 21 | while. So anyway, that's one option. Another         |
| 22 | with a big question mark is mostly because it's a    |
| 23 | warm weather port and we have a lot of work that     |

| 1  | is ongoing but I'm not sure about pace. We've got   |
|----|---|
| 2  | just recently a big document from NIOSH but SRS.    |
| 3  | That would be Augusta area. So that's another       |
| 4  | option.   |
| 5  | And then again, LaVon, correct me if I'm            |
| 6  | wrong but I think Rocky Flats, we have documents    |
| 7  | coming out for that which                           |
| 8  | MR. RUTHERFORD: Yes, we have our                    |
| 9  | critical mass lab report coming out within the next |
| 10 | week or so.   |
| 11 | MR. KATZ: So those are three                        |
| 12 | locations. I don't know, Board Members, whether     |
| 13 | you have in mind others as well.                    |
| 14 | MEMBER KOTELCHUCK: I would say I was                |
| 15 | thinking about it. I don't know if we will be able  |
| 16 | to make a final determination on Rocky Flats for    |
| 17 | March based on we need another meeting of our Work  |
| 18 | Group. But certainly by the next meeting, June or   |
| 19 | something, certainly I believe we will be ready.    |
| 20 | MR. KATZ: Well, if we have documents                |
| 21 | coming, are we going to be finished with our        |
| 22 | documents, with these documents that are coming     |
| 23 | right now?  |

| 1  | MR. RUTHERFORD: What I anticipate is                 |
|----|--|
| 2  | we will put our report out. Then SC&A and the Work   |
| 3  | Group would have a period of time as well as the     |
| 4  | petitioners to review that.                          |
| 5  | MR. KATZ: Right.                                     |
| 6  | MR. RUTHERFORD: And then we would have               |
| 7  | a meeting sometime early next year to discuss that.  |
| 8  | MR. KATZ: So we do have three, you                   |
| 9  | know, three months, two months, three months.        |
| 10 | MEMBER KOTELCHUCK: The issue to me,                  |
| 11 | Dave, the issue to me is whether we'll have a chance |
| 12 | to have a meeting of the Working Group before March. |
| 13 | That, because we have to put it on the               |
| 14 | MR. KATZ: Right. But we have months                  |
| 15 | to do that. We have a meeting in January or          |
| 16 | February or early March, right?                      |
| 17 | MEMBER KOTELCHUCK: Right. But I know                 |
| 18 | from our Subcommittee that we're scheduled for       |
| 19 | MR. KATZ: Okay, I mean, I think the                  |
| 20 | difference   |
| 21 | MEMBER KOTELCHUCK: a January                         |
| 22 | meeting. So I'm not sure.                            |
| 23 | MR. KATZ: The difference, Dave, is                   |

| 1  | that Subcommittees, you need to post in the Federal |
|----|---|
| 2  | Register 30 days in advance. That slows the         |
| 3  | process a lot. But Work Group meetings, we can      |
| 4  | have them whenever. We don't have to notice         |
| 5  | beforehand.   |
| 6  | MEMBER KOTELCHUCK: Okay.                            |
| 7  | MR. KATZ: So we don't have that                     |
| 8  | impediment, or that just slows the process.         |
| 9  | MEMBER KOTELCHUCK: Very good. Okay,                 |
| 10 | then I think it's possible for us to meet and then  |
| 11 | we can make a final determination on the SEC        |
| 12 | application then in the March meeting, in which     |
| 13 | case Rocky Flats would be a very appropriate place  |
| 14 | to meet if we want to do that.                      |
| 15 | CHAIR MELIUS: Other comments? I                     |
| 16 | mean, my concern, I'll speak up for Argonne East,   |
| 17 | is that we haven't been there for years.            |
| 18 | MR. KATZ: Forever, yes.                             |
| 19 | CHAIR MELIUS: And we've, yes right, it              |
| 20 | was the Senator Obama site visit. And so we have    |
| 21 | had, you know, very little input from the potential |
| 22 | claimants there. And I think that would be helpful  |
| 23 | to have that input.                                 |

| 1  | MR. KATZ: Right.                                   |
|----|--|
| 2  | CHAIR MELIUS: In terms of going                    |
| 3  | forward and that. It's a big site and it sort of   |
| 4  | stands out among the laboratories in terms of not  |
| 5  | having an SEC, which is a little bit concerning.   |
| 6  | It might still be appropriate, but we need to      |
| 7  | understand that.                                   |
| 8  | So, and then Savannah River is also, I             |
| 9  | think it's a question of timing. Maybe we put, and |
| 10 | we don't have to decide location now. We should    |
| 11 | decide   |
| 12 | MR. KATZ: Well, we do have to decide               |
| 13 | March location now because we're                   |
| 14 | CHAIR MELIUS: Right, right now?                    |
| 15 | MR. KATZ: Well, not right this second.             |
| 16 | But we actually are getting to it takes a while    |
| 17 | to make that machinery work to get contracts for   |
| 18 | the hotel and all that. So we really should decide |
| 19 | about it at this point on location.                |
| 20 | MEMBER KOTELCHUCK: Chicago's fine.                 |
| 21 | MEMBER MUNN: Well, it's been a while               |
| 22 | since we've been to Savannah River too. I mean     |
| 23 | MEMBER ZIEMER: If we select Chicago,               |

| 1  | I believe we actually met in Naperville last time   |
|----|---|
| 2  | which is closer to the Lab. And it's probably       |
| 3  | pretty convenient to O'Hare Airport.                |
| 4  | CHAIR MELIUS: Yes. No, it was                       |
| 5  | Naperville was where we did meet. And even though   |
| 6  | I had lived in Chicago for ten years, I got lost    |
| 7  | on the way with John Howard in the car with me.     |
| 8  | MR. KATZ: I mean, I'm all for that. I               |
| 9  | think we would like to try to get public            |
| 10 | involvement. And the earlier in the process is      |
| 11 | better. So it's just a, I think, we can work with   |
| 12 | DOL and our agency to try to get people to come.    |
| 13 | And maybe the Applicants can help with that process |
| 14 | too, but try to get a good turn out to get people   |
| 15 | interested and involved.                            |
| 16 | CHAIR MELIUS: Okay. But if we hear                  |
| 17 | something that changes our mind in the next few     |
| 18 | days.   |
| 19 | MR. KATZ: Yes, for sure.                            |
| 20 | MEMBER CLAWSON: I just want to make                 |
| 21 | one thing clear. We haven't even met as a Work      |
| 22 | Group. We're still in the beginning which I would   |
| 23 | really enjoy public comment into it as we go into   |

| 1  | it because TBD is out there and                    |
|----|--|
| 2  | CHAIR MELIUS: But we have an SC&A                  |
| 3  | review. Correct? So we would have a list of        |
| 4  | issues that are of concern.                        |
| 5  | MEMBER CLAWSON: Right.                             |
| 6  | CHAIR MELIUS: Based on the Site                    |
| 7  | Profile. Now there may be more issues that we want |
| 8  | to hear about also that we're not aware of or      |
| 9  | whatever. So I think we could certainly structure  |
| 10 | it around those issues.                            |
| 11 | MR. KATZ: And that's one thing we can              |
| 12 | tackle in the Work Group, the first Work Group     |
| 13 | meeting, whenever we have that.                    |
| 14 | CHAIR MELIUS: Yes. And I think we                  |
| 15 | should try to have a Work Group meeting, you know, |
| 16 | before   |
| 17 | MR. KATZ: Definitely, definitely.                  |
| 18 | Right.   |
| 19 | CHAIR MELIUS: Yes. Okay. Meetings                  |
| 20 | after that.  |
| 21 | MR. KATZ: Okay. So let me just remind              |
| 22 | you what we have already on the calendar and then  |
| 23 | go forward from there. So we just talked about the |

| 1  | March 22nd, 23rd meeting. That's face-to-face.       |
|----|--|
| 2  | Then we have a June 6 teleconference.                |
| 3  | Then we have a July 25th through 26th face-to-face   |
| 4  | again, our sort of standard mid-summer meeting.      |
| 5  | We don't need to talk about                          |
| 6  | CHAIR MELIUS: What are those dates                   |
| 7  | again?   |
| 8  | MR. KATZ: I'm sorry, that's the 25th                 |
| 9  | and 26th of July.                                    |
| LO | MEMBER KOTELCHUCK: And when was the                  |
| L1 | teleconference?                                      |
| L2 | MR. KATZ: The teleconference is June                 |
| L3 | 6.   |
| L4 | MEMBER KOTELCHUCK: Thank you.                        |
| L5 | MR. KATZ: So going beyond those then,                |
| L6 | the next teleconference date range that makes        |
| L7 | sense, works for other things is the week of October |
| L8 | 22nd or the 30th. So we typically try to, we shoot   |
| L9 | for Wednesdays normally, but any day those weeks     |
| 20 | is good. So for example, the 25th of October, is     |
| 21 | that   |
| 22 | MEMBER LOCKEY: Did you say the 26th?                 |
| 23 | MR. KATZ: The 25th, 2-5.                             |

| 1  | MEMBER LOCKEY: Twenty five, okay.                |
|----|--|
| 2  | MEMBER BEACH: I'm actually going to be           |
| 3  | <del></del>                                      |
| 4  | CHAIR MELIUS: Henry and I can't do               |
| 5  | that.  |
| 6  | MR. KATZ: Okay.                                  |
| 7  | MEMBER BEACH: I can't do it either.              |
| 8  | MR. KATZ: Well, can you do that week,            |
| 9  | any time that week?                              |
| 10 | CHAIR MELIUS: No.                                |
| 11 | MR. KATZ: Oh, okay. Let's move on                |
| 12 | then from that week. What about the last week of |
| 13 | October?   |
| 14 | MEMBER MUNN: What's wrong with the               |
| 15 | preceding week?                                  |
| 16 | MR. KATZ: Well, I suspect there was              |
| 17 | something wrong with the preceding but let me    |
| 18 | check.   |
| 19 | MEMBER BEACH: I'm actually out that              |
| 20 | week, too.                                       |
| 21 | MR. KATZ: Oh, okay. Josie's gone                 |
| 22 | that week.                                       |
| 23 | MEMBER BEACH: So after the ves after.            |

| 1   | the whole month of October/November is not going  |
|-----|---|
| 2   | to work for me for anything.                      |
| 3   | MR. KATZ: Okay, so we don't really                |
| 4   | have to, we'll miss you for that meeting.         |
| 5   | CHAIR MELIUS: Both of you?                        |
| 6   | MEMBER CLAWSON: Both of us.                       |
| 7   | MR. KATZ: Oh, that's right, that's                |
| 8   | right.  |
| 9   | CHAIR MELIUS: So what are the dates               |
| LO  | exactly?  |
| L1  | MEMBER BEACH: For me it's going to be             |
| L2  | around the 4th of October until mid November.     |
| L3  | CHAIR MELIUS: And for you?                        |
| L4  | MEMBER CLAWSON: After the first two               |
| L5  | weeks   |
| L6  | MEMBER BEACH: And the month of                    |
| L7  | October.  |
| L8  | MEMBER CLAWSON: And the month of                  |
| L9  | October.  |
| 20  | MR. KATZ: The whole month of October?             |
| 21  | MEMBER KOTELCHUCK: How about the                  |
| 22  | third week in November, just before Thanksgiving? |
| 2.3 | MEMBER BEACH: That will work.                     |

| 1  | MEMBER ANDERSON: How about the Friday              |
|----|--|
| 2  | after Thanksgiving?                                |
| 3  | MEMBER BEACH: That will work too.                  |
| 4  | MEMBER MUNN: How about just calling                |
| 5  | in?  |
| 6  | MR. KATZ: Okay, well let's, that's                 |
| 7  | CHAIR MELIUS: We'll let us talk a bit.             |
| 8  | MR. KATZ: Yes, okay. Let's do some                 |
| 9  | figuring. We'll come back to this. The             |
| 10 | face-to-face meeting, then the next face-to-face   |
| 11 | meeting about, it's similar to this timing now. So |
| 12 | the week of December 4th, or the 11th. Or we're    |
| 13 | moving into January if neither of those work. So   |
| 14 | why don't you look first at the week of December   |
| 15 | 4th?   |
| 16 | MEMBER LOCKEY: Ted, that week is not               |
| 17 | good for me.                                       |
| 18 | MR. KATZ: Okay, that's Jim Lockey.                 |
| 19 | CHAIR MELIUS: And it's not good for me             |
| 20 | either.  |
| 21 | MR. KATZ: Okay. Well, we need our                  |
| 22 | Chair, and we need Jim. Okay.                      |
| 23 | MEMBER LOCKEY: The following week,                 |

| 1  | how about the following week?                      |
|----|--|
| 2  | MR. KATZ: So the week of the 11th, how             |
| 3  | does that work?                                    |
| 4  | MEMBER BEACH: Good.                                |
| 5  | MEMBER LOCKEY: That's good for me.                 |
| 6  | MR. KATZ: Yes, that's the week of,                 |
| 7  | excuse me, so December 11th we're talking about.   |
| 8  | CHAIR MELIUS: It's good.                           |
| 9  | MR. KATZ: Does that work for Paul, how             |
| 10 | about you?   |
| 11 | MEMBER ZIEMER: Yes, had to get off of              |
| 12 | mute here. Yes, I'm good.                          |
| 13 | MR. KATZ: Okay. So shall we say that,              |
| 14 | then? So that's the week of December 11th. Do you  |
| 15 | want to do the middle of the week?                 |
| 16 | CHAIR MELIUS: Yes.                                 |
| 17 | MR. KATZ: Okay, so that would be the               |
| 18 | 13th and 14th. Does that work?                     |
| 19 | MEMBER KOTELCHUCK: Hanukkah. It may                |
| 20 | be Hanukkah, but it's not worthy of taking special |
| 21 | time off for those of us who are Jewish. I think   |
| 22 | we can go ahead with it.                           |
| 23 | MR. KATZ: Okay. So let's say the                   |

| 1  | December 13, 14. That's 2017. Where? Andy says      |
|----|---|
| 2  | where. Alaska.                                      |
| 3  | MEMBER CLAWSON: I was thinking                      |
| 4  | Hawaii.   |
| 5  | MEMBER BEACH: Can we have a site                    |
| 6  | there?  |
| 7  | MEMBER FIELD: Or somewhere in the                   |
| 8  | Caribbean would work.                               |
| 9  | MR. KATZ: Okay, that's it for                       |
| LO | scheduling.   |
| L1 | MEMBER ANDERSON: Maybe that's our                   |
| L2 | SRS.  |
| L3 | CHAIR MELIUS: Okay.                                 |
| L4 | MEMBER LOCKEY: Ted, Jim Lockey. Is                  |
| L5 | there a meeting in October/November, or is that     |
| L6 | what happened?                                      |
| L7 | MR. KATZ: So we didn't, Jim, we're                  |
| L8 | going to come back to that question of when to do   |
| L9 | the teleconference.                                 |
| 20 | CHAIR MELIUS: It's a teleconference                 |
| 21 | so it's only, probably more of a question of making |
| 22 | sure we have a quorum than                          |
| 23 | MR. KATZ: Yes. we need a guorum and we              |

| 1  | don't want to, if we do it before, it's going to   |
|----|--|
| 2  | be very early in the process and then it may not   |
| 3  | be that useful.                                    |
| 4  | MEMBER LOCKEY: Got you, alright.                   |
| 5  | MR. KATZ: So that's the catch. But                 |
| 6  | we'll come back to that later. Maybe tomorrow.     |
| 7  | CHAIR MELIUS: Okay. It's 9:45.                     |
| 8  | We'll break. We'll start promptly at 10:15         |
| 9  | because we may have petitioners on the line.       |
| 10 | (Whereupon, the above-entitled matter              |
| 11 | went off the record at 9:45 a.m. and resumed at    |
| 12 | 10:17 a.m.)  |
| 13 | CHAIR MELIUS: Okay.                                |
| 14 | MR. KATZ: Can I just check before we               |
| 15 | get started, on the line, maybe Paul, just tell me |
| 16 | if you can hear me clearly?                        |
| 17 | MEMBER ZIEMER: Yes, I'm here and I can             |
| 18 | hear you clearly.                                  |
| 19 | MR. KATZ: Okay, thanks.                            |
| 20 | MEMBER POSTON: Ted?                                |
| 21 | MR. KATZ: Yes, that's John?                        |
| 22 | MEMBER POSTON: Yes, I'm here.                      |
| 23 | MR. KATZ: Super. And I can hear you                |

| 1  | clearly.   |
|----|--|
| 2  | MEMBER POSTON: I was on mute.                        |
| 3  | CHAIR MELIUS: Anybody else here?                     |
| 4  | MR. KATZ: Well, we should have, let's                |
| 5  | see, Paul, John on the phone. No, that's it,         |
| 6  | right?   |
| 7  | CHAIR MELIUS: Okay. So we're going                   |
| 8  | to be talking about the Carborundum Company SEC      |
| 9  | petition and the report from the Work Group on that. |
| 10 | Those of you on the line and here, how we do this,   |
| 11 | since it's a petition, first we'll have the          |
| 12 | presentation from the Work Group. My                 |
| 13 | understanding is someone from NIOSH will be          |
| 14 | available on the phone if there are questions for    |
| 15 | NIOSH, for DCAS about this.                          |
| 16 | We'll have any Board Member questions                |
| 17 | or comments to be addressed. And then before we      |
| 18 | take any action, we'll provide an opportunity for    |
| 19 | the petitioners if they wish to make any public      |
| 20 | comments about the SEC petition, to do so before.    |
| 21 | And after that, we will then let the Board           |
| 22 | deliberate and decide what recommendation to make    |
| 23 | on this.   |

| 1   | Unfortunately, in the agenda, Dr. Gen               |
|-----|---|
| 2   | Roessler who is the Chair of the Work Group was     |
| 3   | supposed to present. She's not able to be here      |
| 4   | today, nor her initial substitute, Dr. John Poston  |
| 5   | who is also not available, I don't think for the    |
| 6   | entire time, anyway. I'm not sure about John.       |
| 7   | So John Stiver is going to, from SC&A               |
| 8   | will do the presentation I think Gen was planning   |
| 9   | on doing. But, so why don't you go ahead, John.     |
| LO  | Carborundum Company SEC Petition                    |
| L1  | MR. STIVER: Okay, thank you, Dr.                    |
| L2  | Melius. I'm John Stiver from SC&A and we're going   |
| L3  | to talk about SEC petition 00223 for Carborundum    |
| L4  | Plant today.  |
| L5  | Just some pro forma stuff here. This                |
| L6  | is the Work Group Members. Gen Roessler is the      |
| L7  | Chair. Brad Clawson, Bill Field and John Poston.    |
| L8  | A little bit of backdrop on the                     |
| L9  | Carborundum Company. It's located in Niagara        |
| 20  | Falls, New York, was an Atomic Weapons Employer for |
| 21  | two different periods, one way back in 1943 from    |
| 2.2 | June to September, and again from 1959 to 1967.     |

So we have to operational periods and 1 also two residual periods, first from 1943 to 1958, 2 and the second from 1968 to 1992. As a facility 3 listing, from June to September of '43. In June of 4 '43 the Carborundum Company at its Globar Plant, 5 6 Buffalo Avenue locations, they performed experimental grinding of uranium metal using a 7 centerless grinder. 8 9 The slugs were received in June, and then were shipped back in September 1943. 10 1959 to '67, Carborundum manufactured uranium and 11 plutonium carbide pellets for an AEC research 12 In addition to that, they performed work 13 program. 14 during the 1950s that's not covered under -- which 15 included the fabrication of nuclear fuel elements 16 for commercial purposes. 17 The proposed and evaluated Class, the 18 requested Class was all employees who worked in any area of the Carborundum Company facility on Buffalo 19 20 Avenue in Niagara Falls, New York from January 1st, 21 1943 to December 31st of 1976. 22 can see this note here. 23 There's identified dose reconstruction no

infeasibilities for the site. NIOSH limited its 1 evaluation to petitioner Class period from '43 to 2 3 '76 rather than to 1992. Here's the NIOSH feasibility summary. 4 As you can see during the operation and residual 5 6 periods for both internal and external, I believe feasibility is indeed possible. 7 Here's a little bit of a timeline on the 8 9 SEC petition itself. It was received in November of 2014. Several exchanges led up to our first 10 Work Group meeting which took place August 18th of 11 12 this year. And what's not included here is the 13 14 second meeting which just took place a couple of 15 weeks ago on November 17th where the issue of 16 surrogate data was discussed. And we'll be seeing 17 that later in the presentation. 18 This is just kind of an overview. We're going to go through each of these seven 19 20 findings. This sort of lists what they are. 21 They're all, two and seven are basically in 22 abevance. Thev are closed as SEC issues. 23 Basically all of the seven findings are closed as

| 1  | SEC issues.  |
|----|--|
| 2  | Now take a look at finding one. This                 |
| 3  | was that NIOSH failed to prescribe a methodology     |
| 4  | to assess dose to the skin and hands and forearms    |
| 5  | from x-ray diffraction equipment. And the basis      |
| 6  | of this was that NIOSH had a methodology based on    |
| 7  | x-ray diffraction or XRD equipment at Sandia         |
| 8  | Laboratories at Livermore.                           |
| 9  | But that same description and technical              |
| 10 | factors were not available for Carborundum. So       |
| 11 | SC&A really had our hands tied in determining how    |
| 12 | NIOSH intended to bound the XRD doses.               |
| 13 | NIOSH then came back after they had                  |
| 14 | acquired additional information. They assessed       |
| 15 | the doses to the XRD operators, and it was concluded |
| 16 | that dose to the skin and the hands would be         |
| 17 | assigned using the exposure to uranium work areas    |
| 18 | because it was bounding.                             |
| 19 | I believe it was about 10 rads per year              |
| 20 | of shallow dose to the skin. I think, like, 115      |
| 21 | rads to the extremities of the hands. So that        |
| 22 | issue was closed.                                    |
| 23 | Finding number two related to this                   |

| 1  | issue of processing of thorium on site, this        |
|----|---|
| 2  | actually took place I believe in mid 1950s. So      |
| 3  | then during that first residual period, there was   |
| 4  | no evidence. NIOSH presented a weight of evidence   |
| 5  | argument that there probably was no weapon-related  |
| 6  | work going on with thorium.                         |
| 7  | However, during the second operational              |
| 8  | period, because all sources of exposure have to be  |
| 9  | considered, NIOSH would therefore have to account   |
| 10 | for potential thorium exposures by using the air    |
| 11 | sampling data that were available at the time.      |
| 12 | I believe in the August meeting, I                  |
| 13 | believe Jim Neton indicated that they were going    |
| 14 | to look at that a little bit more carefully. And    |
| 15 | so that is deemed a Site Profile issue. It is in    |
| 16 | abeyance awaiting methodology on the part of NIOSH. |
| 17 | Finding three, this was the use of                  |
| 18 | strontium-90 thickness gauges. And we had found     |
| 19 | evidence that in 1952, the site acquired several    |
| 20 | thickness gauges as part of their QA efforts. And   |
| 21 | these had about two curies of strontium-90 in       |
| 22 | equilibrium with yttrium-90.                        |
| 23 | So we have pure beta emitters,                      |

high-energy beta emitters. 1 So there was potential for Bremsstrahlung radiation exposure to 2 3 workers. NIOSH agreed to go take a look and see if they could find some more information on this, and 4 they did. 5 And it turns out that that, the gauges 6 were indeed located in the Wheatfield, New York 7 8 plant which was a town near Niagara Falls, but it's 9 not a covered facility. So that issue was moot and it's closed basically. We withdrew that finding. 10 Finding four, a failure to assign doses 11 12 for medical x-rays during the first operational They didn't assign any medical x-rays 13 period. 14 during that period because the correspondence from 15 the contractor, DuPont, said the grinding of 16 uranium and Carborundum didn't require medical 17 supervision. 18 Well, that still doesn't address, you 19 know, workplace exposures to medical x-rays as part 20 their employment which is required under 21 EEOICPA. NIOSH agreed that they should indeed do 22 an x-ray exam for claimants during that first 23 operational period. And we agreed, and the Work

| 1  | Group agreed, and that finding's closed.           |
|----|--|
| 2  | Finding five is kind of related, it was            |
| 3  | the example DR that NIOSH provides along with the  |
| 4  | Evaluation Report. Failure to assign medical       |
| 5  | x-ray doses during the second operational period.  |
| 6  | And you see there's a lot of verbiage here. I'm    |
| 7  | not going to go through and read everything here.  |
| 8  | Let's see. The sample DR in support of             |
| 9  | the ER, it's posted on the website, explicitly     |
| 10 | stated there's no medical x-rays doses were        |
| 11 | assessed to hypothetical worker. And we have felt  |
| 12 | that inconsistency needed to be resolved.          |
| 13 | NIOSH agreed to include medical x-rays             |
| 14 | for the period, and we concurred with their        |
| 15 | resolution. So the Work Group agreed to close that |
| 16 | finding.   |
| 17 | Finding six. This was the                          |
| 18 | inappropriate and incorrect use of FGR report 12,  |
| 19 | the dose conversion factors. And as opposed to the |
| 20 | TBD-6000 factors, to estimate internal and         |
| 21 | external doses from intakes of uranium dust and    |
| 22 | from exposure to uranium metal.                    |
| 23 | NIOSH used FGR 12 to calculate doses               |

| 1  | from submersion in a cloud of radioactive dust and   |
|----|--|
| 2  | exposure to contaminated surfaces instead of using   |
| 3  | the values in TBD-6000.                              |
| 4  | Photon dose coefficients from FGR-13                 |
| 5  | are only about 30 percent of the values in TBD-6000. |
| б  | There was a problem with that also in that FGR 12,   |
| 7  | the DCFs are for effective dose and not equivalent   |
| 8  | dose to organs.                                      |
| 9  | And there's really no way to tease out               |
| 10 | organ doses from that. Now, granted the doses are    |
| 11 | small, but you know, it's a scientifically           |
| 12 | incorrect approach and did result in slightly lower  |
| 13 | doses overall.                                       |
| 14 | NIOSH agreed to use the TBD-6000 values              |
| 15 | in the August 18th discussions, and the Work Group   |
| 16 | agrees to close that finding as well.                |
| 17 | Finally finding seven, dose                          |
| 18 | calculations in a sample DR were not reproducible.   |
| 19 | And we had tried to independently reproduce their    |
| 20 | doses assuming that they were best estimates.        |
| 21 | And it turned out that there were some               |
| 22 | efficiency measures employed, for example using      |
| 23 | type F for intakes for the 1943 uranium grinding     |

work when really M and S were applicable. 1 NIOSH -- excuse me, my voice is kind of 2 3 going -- does believe that those comments should be resolved before it provides an update. 4 me back up just a second. 5 This is going to kind of seque into the 6 NIOSH had indicated or reminded us 7 next issue. that in our review we had questioned some of the 8 9 surrogate data that were being applied. felt that it was best to wait until those issues 10 were resolved until they went back and took a look 11 12 at this sample DR and made some revisions to it. And that kind of brings us up to the 13 14 November 17th meeting where we looked at the use of surrogate data from TBD-6000. The DCAS 15 16 assessment relied on surrogate data in TBD-6000 to estimate external and internal doses for the 1943 17 experimental work. 18 It also relied on surrogate data for the 19 reconstruction of external doses from uranium work 20 21 in the 1959 through '67. But external doses for 22 mixed uranium/plutonium compounds did not rely on 23 surrogate data or estimates of intakes from 1959

to 1967. So it's kind of a focused use of surrogate 1 data. 2 Now we'll take a look first at the first 3 operational period. We took a look at the 4 surrogate data that were proposed and compared that 5 to the Advisory Board criteria. 6 The hierarchy of data, exclusivity 7 8 constraint, site and process similarities, 9 temporal considerations and plausibility. And in every one of these situations, the surrogate data 10 for this first period met the Board's criteria. 11 12 we felt that the surrogate data on uranium intakes satisfied all criteria in that particular case. 13 14 Now for external exposure to uranium, the actual source term during the first operational 15 16 period was about 13.6 kilograms of natural uranium; that was slugs. And during the second operational 17 period, there were 4.6 kilograms of uranium shot 18 requested. And batches of it were produced in 30 19 20 gram to 2.7 kilograms. So pretty small amounts 21 overall. NIOSH did MCNP modeling since none of 22 23 the other, you know, there's obviously no personnel

| 1  | monitoring, area monitoring or anything of that    |
|----|--|
| 2  | nature, so we had to default to source term        |
| 3  | modeling.  |
| 4  | And so they went ahead and did modeling,           |
| 5  | but they used, like, a 477 kilogram ingot, about   |
| 6  | two feet high by ten inches deep and so forth. And |
| 7  | we took a look at that to determine whether it     |
| 8  | really satisfied the criteria, the hierarchy of    |
| 9  | data.  |
| 10 | The exclusivity constraint, we felt                |
| 11 | there were other sources of data available in      |
| 12 | TBD-6000 that were more appropriate. So we didn't  |
| 13 | feel that it met that. Site and process            |
| 14 | similarities, again major differences in source    |
| 15 | term.  |
| 16 | Temporal considerations really didn't              |
| 17 | matter, really because site and process, it's      |
| 18 | really, it's a completely different time frame and |
| 19 | so forth. Plausibility, we thought there were      |
| 20 | major differences in both the actual and the       |
| 21 | modeled source terms.                              |
| 22 | And our review came up with the                    |
| 23 | suggested resolution during the first period was   |

| 1  | to model the dose rates from seven slugs, much     |
|----|--|
| 2  | smaller slugs in a certain type of array. And the  |
| 3  | second period, to model the dose rate from uranium |
| 4  | plate, and that was about three kilograms.         |
| 5  | NIOSH is going to go back and take a               |
| 6  | second look at this. However, we stress this is    |
| 7  | not an SEC issue, as other source terms that are   |
| 8  | more appropriate are available in TBD-6000.        |
| 9  | So the bottom line, the Work Group                 |
| LO | concludes that with appropriate adjustments, NIOSH |
| L1 | can indeed reconstruct doses for the proposed SEC  |
| L2 | Class, and the Work Group moves that the SEC       |
| L3 | petition 223 be denied.                            |
| L4 | And I don't know if Tom Tomes is online.           |
| L5 | He's the author of the TBD, and would probably be  |
| L6 | in the best position to address any technical      |
| L7 | issues. Also Bob Anigstein, Dr. Anigstein from     |
| L8 | SC&A is online as well.                            |
| L9 | CHAIR MELIUS: Okay. Questions from                 |
| 20 | anybody? Okay, go ahead. Josie?                    |
| 21 | MEMBER LOCKEY: Jim Melius? Ted?                    |
| 22 | MR. KATZ: Right, Jim. We can hear                  |
| 23 | you It's just that                                 |

| 1  | MEMBER LOCKEY: Yes, the petitioners                |
|----|--|
| 2  | could not hear a lot of the presentation. So       |
| 3  | CHAIR MELIUS: Could you hear it, Jim?              |
| 4  | MEMBER LOCKEY: It was soft, but I                  |
| 5  | could hear it. But I don't know who the            |
| 6  | petitioners are, but I heard them talking to each  |
| 7  | other and they were having trouble hearing. So I   |
| 8  | just want to pass that on.                         |
| 9  | CHAIR MELIUS: Okay, thank you.                     |
| LO | MR. KATZ: Thanks, Jim.                             |
| L1 | MEMBER BEACH: And I was wondering how              |
| L2 | many workers this involved who were affected?      |
| L3 | CHAIR MELIUS: Tom, can you answer                  |
| L4 | that?  |
| L5 | MR. TOMES: Yes. Tod Tomes. The                     |
| L6 | operations at Carborundum was a relatively small   |
| L7 | operation. The early work was just experimental    |
| L8 | for barely a few weeks involving one machine. The  |
| L9 | later second period was initially was working with |
| 20 | uranium, and then they expanded that work into the |
| 21 | mixed uranium/plutonium pellets.                   |
| 22 | And for the most part, there was a                 |
| 23 | one-man operation. However, there was other        |

| 1  | people involved. So we do have interviews from      |
|----|---|
| 2  | workers who said that the work in the plutonium     |
| 3  | facility was basically a one-man operation.         |
| 4  | But as I said, the other people                     |
| 5  | involved, they had some testing going on of the     |
| 6  | pieces they were fabricating.                       |
| 7  | CHAIR MELIUS: But the number of claims              |
| 8  | looked, I thought                                   |
| 9  | MEMBER BEACH: It was huge. It was,                  |
| 10 | like, three hundred and something. That's why I     |
| 11 | got confused.                                       |
| 12 | CHAIR MELIUS: And the significant                   |
| 13 | percentage of them had been compensated, I thought. |
| 14 | MEMBER BEACH: Yes, 50-some odd had                  |
| 15 | been compensated.                                   |
| 16 | MEMBER CLAWSON: That was in the                     |
| 17 | Department of Labor                                 |
| 18 | MEMBER BEACH: That's why I was asking,              |
| 19 | because it was confusing.                           |
| 20 | MR. HINNEFELD: Well this is Stu                     |
| 21 | Hinnefeld. As is the case in many, many times,      |
| 22 | there may be only a few people in a particular      |
| 23 | exposure category, but the records are just not     |

sufficient to identify which people those were. 1 And so we essentially, given evidence 2 3 to the contrary, I mean, some people's records may contain information that would leave you 4 conclude with confidence that those people were not 5 6 exposed. 7 Τf vou don't have t.hat. sort of 8 information in any particular person's record, we 9 say well, this could very well be one of the people that was exposed. And so each individual then is 10 treated as if they might. 11 12 Now when you do that, you end up with 13 far people getting higher more dose 14 reconstructions than maybe actually happened. 15 But that's not that uncommon in how we do things. 16 CHAIR MELIUS: Is that clear now? 17 MEMBER BEACH: Yes. 18 CHAIR MELIUS: Yes. So I think what 19 you're saying is that the work records are not clear 20 in terms of placing people in this particular 21 operation. So if it were an SEC, it would cover 22 significant number of possibly additional 23 We don't know from this. Phil? people.

| 1  | MEMBER SCHOFIELD: Yes, I've got one                 |
|----|---|
| 2  | question that SC&A or NIOSH could answer. Is there  |
| 3  | any records for the ventilation, or is there any    |
| 4  | type of ventilation in the area where they're doing |
| 5  | the centerless grinding? Was that just kind of an   |
| 6  | open-room process?                                  |
| 7  | MR. KATZ: Tom?                                      |
| 8  | MR. TOMES: This is Tom. I could not                 |
| 9  | hear the question very well on part of that.        |
| 10 | MR. KATZ: I'm sorry. So there's                     |
| 11 | someone on the line who's got their phone open and  |
| 12 | they're breathing into their phone, and that's      |
| 13 | probably hurting the audio quality for others.      |
| 14 | But Tom, the question is what sort of,              |
| 15 | what do we know about the ventilation for this      |
| 16 | operation, and if you could just address that       |
| 17 | question.   |
| 18 | MR. TOMES: 1943 work, we presume there              |
| 19 | was no ventilation required. And records suggest    |
| 20 | that there was no special requirements required by  |
| 21 | the Manhattan Engineer District for the testing     |
| 22 | they did.   |
| 23 | The 1959 through 1967 period, most or               |

nearly all the work was done in hoods or glove 1 The uranium work was done in hoods and 2 3 glove boxes. Most of the work had to be done in an inert atmosphere. 4 plutonium 5 The facility was fully ventilation 6 designed, modern facility. But 7 contained glove boxes, and inert atmospheres. Essentially it was a contained operation with only 8 9 minimal fugitive emissions. Thank you, Tom. 10 MR. KATZ: 11 CHAIR MELIUS: Okay. I have a couple 12 of comments. And I quess in some way they're questions. Two parts. One is -- these are sort 13 14 of procedural. One is that you have SC&A, and I think NIOSH agreed, that the original example dose 15 16 reconstruction was not appropriately done and that the methods for that are going to be changed. 17 18 But as I understand it, those methods 19 haven't been chosen yet. And so there is no, you 20 know, representative example dose reconstruction 21 And even more disturbing to me is the 22 issues with the surrogate data where the surrogate 23 data criteria were not met, and now we're going back

| 1  | to develop a new set of surrogate data from         |
|----|---|
| 2  | TBD-6000.   |
| 3  | And the issue isn't whether, you know,              |
| 4  | those are in general appropriate but the question   |
| 5  | is are they applicable to this particular site.     |
| 6  | And I really find it troubling that we would, in    |
| 7  | the case of a surrogate data, we sort of refer this |
| 8  | automatically as a Site Profile issue.              |
| 9  | It's not. I don't think you've                      |
| 10 | demonstrated that the SEC can be, that the dose     |
| 11 | reconstructions can be done yet. You're assuming    |
| 12 | it. And you may very well be right, I'm not         |
| 13 | questioning that or questioning the Work Group.     |
| 14 | But I don't think we have a                         |
| 15 | demonstration on the record that those surrogate    |
| 16 | data can be met, criteria can be met. And I guess   |
| 17 | I find that troubling to do, unless I missed, and   |
| 18 | I guess my question is did I miss a report or a     |
| 19 | technical report that was done.                     |
| 20 | Otherwise, now I haven't read the                   |
| 21 | transcripts from the Work Group meetings and        |
| 22 | perhaps there was something in there that fleshed   |
| 23 | it out more.  |

| 1  | But certainly not from the slides, I                |
|----|---|
| 2  | don't see an indication, and from the presentation  |
| 3  | that we actually have a methodology that will be    |
| 4  | used and that that methodology has been reviewed    |
| 5  | for, one, against our surrogate data criteria, and  |
| 6  | secondly against that we have an example of dose    |
| 7  | reconstruction done with that criteria now.         |
| 8  | Again, so my question for I guess you,              |
| 9  | John, or anybody else who's involved is has that    |
| 10 | been done? Did I miss it?                           |
| 11 | MR. STIVER: Bob Anigstein did a pretty              |
| 12 | thorough review and it was discussed extensively    |
| 13 | in the August meeting. What you're seeing here is   |
| 14 | just kind of a 10,000 foot view. But Bob, if you're |
| 15 | on, maybe you can answer Dr. Melius' question.      |
| 16 | MEMBER ZIEMER: Dr. Melius, this is                  |
| 17 | Ziemer. I'm looking at the SC&A, they have a        |
| 18 | report called NIOSH use of surrogate data for       |
| 19 | Carborundum. And as I understood this report,       |
| 20 | SC&A agreed that they met the surrogate data        |
| 21 | requirements. This report is authored by Bob        |
| 22 | Anigstein and John Mauro.                           |
| 23 | MEMBER BEACH: Was it the November 10th              |

| 1  | date, Paul, you're talking about?                   |
|----|---|
| 2  | MEMBER ZIEMER: Yes, November 10th                   |
| 3  | report.   |
| 4  | MEMBER BEACH: The most recent one.                  |
| 5  | CHAIR MELIUS: Then why isn't that on                |
| 6  | the slides? What are the criteria that they're      |
| 7  | using? The slides say that this is going to be done |
| 8  | going forward.                                      |
| 9  | MEMBER ZIEMER: This is a report dated               |
| 10 | November 10th. So I'm not sure what their sequence  |
| 11 | was here. But the report was with the materials     |
| 12 | distributed.  |
| 13 | CHAIR MELIUS: Yes, but what were the                |
| 14 | criteria being used, is my question. What were      |
| 15 | they, because that's not what the slide says.       |
| 16 | MR. KATZ: Tom                                       |
| 17 | MEMBER ZIEMER: Well, they went                      |
| 18 | through each of the five, there's discussion on     |
| 19 | each of the five.                                   |
| 20 | MR. KATZ: Either John or Bob or Tom                 |
| 21 | MEMBER ZIEMER: John and Bob are on the              |
| 22 | line. I don't feel like I should discuss their      |
| 23 | report other than point out what their conclusions  |

| T  | were.  |
|----|--|
| 2  | MR. KATZ: Yes, this is Ted. They're                  |
| 3  | different components of dose that were addressed,    |
| 4  | I think. But so one of them can speak to this        |
| 5  | matter.  |
| 6  | MR. STIVER: Bob, if you're on line,                  |
| 7  | that would probably be best since you did the report |
| 8  | and heavy lifting on this. I can say that he looked  |
| 9  | at that uranium slug, felt that it really didn't     |
| 10 | match up with the Board's five criteria for          |
| 11 | surrogate data, but that there are TBD-6000 data     |
| 12 | which would. Now NIOSH would still have to come      |
| 13 | back with some sort of a proposal as to how they     |
| 14 | were going to address that. But based on our         |
| 15 | report, we felt, based on our judgment and review    |
| 16 | of TBD-6000 and what was actually going on at the    |
| 17 | facility, that this would probably, at least in our  |
| 18 | opinion, meet the surrogate data criteria.           |
| 19 | MR. KATZ: Is Bob on the line? Bob                    |
| 20 | Anigstein?   |
| 21 | DR. ANIGSTEIN: I am.                                 |
| 22 | CHAIR MELIUS: He did say he was going                |
| 23 | to be on.  |

| 1  | MR. KATZ: Okay, he planned to, I know.               |
|----|--|
| 2  | I mean, just to add to what John just said, the      |
| 3  | discrepancy is that I think DCAS but Tom can         |
| 4  | speak to this. DCAS selected a different scenario    |
| 5  | from TBD-6000 than Bob Anigstein felt was            |
| 6  | appropriate.   |
| 7  | And I think there's general agreement,               |
| 8  | there was agreement by the Work Group and so on that |
| 9  | that's correct, that Bob was correct. And so they    |
| 10 | have not moved to putting in the, to use the         |
| 11 | alternative.   |
| 12 | I know Bob Anigstein actually, I mean,               |
| 13 | they discussed the specifics of what the             |
| 14 | alternative should be from TBD-6000 from the one     |
| 15 | that was used. And I think there was general         |
| 16 | agreement that that's correct.                       |
| 17 | DR. ANIGSTEIN: This is Bob.                          |
| 18 | MR. KATZ: But they haven't                           |
| 19 | implemented it. So that's where that stands, is      |
| 20 | that correct, Bill?                                  |
| 21 | MEMBER FIELD: Yes.                                   |
| 22 | MR. KATZ: Yes.                                       |
| 23 | MEMBER BEACH: Bob is on the line.                    |

| 1  | DR. ANIGSTEIN: This is Bob Anigstein.               |
|----|---|
| 2  | I don't know if I can be heard.                     |
| 3  | MR. KATZ: Bob, you have to speak right              |
| 4  | into your Bob, go ahead.                            |
| 5  | DR. ANIGSTEIN: Yes, basically the                   |
| 6  | criticism on the use of surrogate data was that the |
| 7  | source term of internal exposure was overstated,    |
| 8  | that they used a much larger quantity of uranium    |
| 9  | in their example DR.                                |
| LO | MR. KATZ: Wait. Bob, can I just                     |
| L1 | interrupt you because you're really not audible for |
| L2 | at least some of us. Can you speak directly into    |
| L3 | a phone handpiece or something?                     |
| L4 | DR. ANIGSTEIN: Is this better?                      |
| L5 | MR. KATZ: That's 100 percent better.                |
| L6 | Thank you.  |
| L7 | DR. ANIGSTEIN: Okay, okay. I don't                  |
| L8 | hear as well on this phone, but I can speak on it.  |
| L9 | Okay, in summary, our objection to the use of       |
| 20 | surrogate data was that NIOSH used an implausible   |
| 21 | source term for the external exposure.              |
| 22 | We agreed with the use of the source                |
| 23 | term for the inhalation, for the internal exposure. |

But the external exposure, it was based on, I think 1 it was a 470-kilogram, it amounts to, uranium slab 2 3 whereas in reality they had only a few pounds of uranium, like, maybe 30 pounds at one time in one 4 5 case. So we simply suggested that there are 6 other source terms available in TBD-6000 which 7 bit of 8 would require little additional а 9 calculation on the part of NIOSH because that source term has been calculated with a lot of 10 detail, but it's a very simple calculation. 11 12 And so we believe that NIOSH can define a source term, just not the one that was used in 13 14 their sample calculations. So in principle, to restate probably what John Stiver said, I had just 15 16 difficulty hearing him, all of the SC&A objections can be satisfied with the appropriate changes in 17 the dose reconstruction procedures. 18 19 CHATR MELITUS: And Τ think the

CHAIR MELIUS: And I think the operational word is "can," but they haven't been, and haven't been demonstrated to the Board. I mean, that's my concern in that this is -- we're reviewing SEC and whether or not the use of

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23

| 1  | surrogate data is appropriate in an SEC situation    |
|----|--|
| 2  | is not of minor Site Profile issue that can be       |
| 3  | handled, you know, at some later point in time.      |
| 4  | I think we don't require every dose                  |
| 5  | reconstruction eventuality to be demonstrated, but   |
| 6  | here where you have, to mem what is a critical one,  |
| 7  | the use of surrogate data, and all we have is people |
| 8  | saying it might be done, there are a number of ways  |
| 9  | of doing it. But what is the way that it's going     |
| 10 | to be done, is my question.                          |
| 11 | And before, this is a personal opinion,              |
| 12 | before closing out an SEC petition, I would like     |
| 13 | to have a demonstration that it can be what is       |
| 14 | being done to do those dose reconstructions,         |
| 15 | demonstrating it can be done with sufficient         |
| 16 | accuracy.  |
| 17 | MR. HINNEFELD: Dr. Melius, Stu                       |
| 18 | Hinnefeld again. If I can offer something from       |
| 19 | essentially a programmatic perspective here.         |
| 20 | From the program standpoint, there is no particular  |
| 21 | advantage to reaching, hurrying a decision to deny   |
| 22 | a Class.   |
| 23 | There's a programmatic advantage to the              |

| 1  | claimant to hurry a decision to add a portion of    |
|----|---|
| 2  | a Class, for instance. We do that on many           |
| 3  | occasions where we haven't completed the            |
| 4  | evaluation, but a portion of a Class we feel this   |
| 5  | is certainly going to be added. Let's move that     |
| 6  | ahead. Those claimants will get paid.               |
| 7  | There's no particular advantage like                |
| 8  | that to make a decision to deny a Class. But there  |
| 9  | is a programmatic interest in establishing a        |
| 10 | complete and solid record of the reasons why the    |
| 11 | Class will not be added.                            |
| 12 | So, as much as my colleagues probably               |
| 13 | want to shoot me, I would say that there's reason   |
| 14 | maybe to bring this back to the Board at a later    |
| 15 | time when the unresolved issues have been resolved. |
| 16 | CHAIR MELIUS: Thank you, Stu. Any                   |
| 17 | additional Josie?                                   |
| 18 | MEMBER BEACH: Oh, I was just wondering              |
| 19 | about how they're choosing categories, because I    |
| 20 | know TBD-6000 only has three categories, I believe, |
| 21 | and the earlier method may have missed some of the  |
| 22 | folks in the categories they should have been in.   |
| 23 | And maybe that will flesh out with this.            |

| 1  | CHAIR MELIUS: Any other Board Members               |
|----|---|
| 2  | on the phone wish to make comments, or at the table |
| 3  | here? David?  |
| 4  | MEMBER KOTELCHUCK: I also feel that                 |
| 5  | this discussion misses the Chair, who's not able    |
| 6  | to be here today. So there's also a value in        |
| 7  | completing the discussion at a later time when      |
| 8  | she's here, because she, I would expect, of all the |
| 9  | Work Group Members, probably is the one most        |
| LO | closely, had most closely followed, although I do   |
| L1 | not wish to cast aspersions on the other group      |
| L2 | Members.  |
| L3 | But, generally, the Chair has been                  |
| L4 | thinking about this as carefully as anyone. And     |
| L5 | so it would be very nice if she were here. And we   |
| L6 | could do that if we were to postpone the decision   |
| L7 | today.  |
| L8 | CHAIR MELIUS: Okay. If there are no                 |
| L9 | further yes? I do want to give the petitioners      |
| 20 | the time to speak.                                  |
| 21 | MEMBER FIELD: Yeah, as a Work Group                 |
| 22 | Member, you know, thinking back on this, my         |
| 23 | recollection was that the source of what was being  |

| 1  | used for the surrogate data was of much bigger mass, |
|----|--|
| 2  | and that I think some of the concerns was that was   |
| 3  | over sort of an overexposure if you do the           |
| 4  | calculation.   |
| 5  | So I think that was the concern. And,                |
| 6  | you know, less of the concern whether or not they    |
| 7  | could do it. It was just that it wasn't feasible.    |
| 8  | CHAIR MELIUS: Plausible.                             |
| 9  | MEMBER FIELD: Yeah, wasn't plausible,                |
| 10 | right.   |
| 11 | CHAIR MELIUS: Henry, yes.                            |
| 12 | MEMBER ANDERSON: I just want to                      |
| 13 | underscore your comment about Site Profile issue     |
| 14 | versus SEC issue. It seems to me the Site Profile    |
| 15 | is the base document. And if that's unresolved       |
| 16 | SEC dose reconstructions are based on those Site     |
| 17 | Profiles. So I guess I don't understand the          |
| 18 | conclusion here that you push this out of the SEC    |
| 19 | but onto the Site Profile.                           |
| 20 | CHAIR MELIUS: Well, I think we                       |
| 21 | MEMBER ANDERSON: I mean, they're                     |
| 22 | related.   |
| 23 | CHAIR MELIUS: Yeah. I think what                     |

| Τ  | we've tried to do is, and maybe overdone it a little |
|----|--|
| 2  | bit, is we try to focus on SEC issues when we're     |
| 3  | reviewing SEC, and then address those because those  |
| 4  | have the most immediate impact, as Stu mentioned     |
| 5  | earlier, you know, for the claimants. And things     |
| 6  | that we're pretty sure can be addressed that aren't  |
| 7  | SEC issues we put aside until later. And one, they   |
| 8  | may not affect the Class                             |
| 9  | MEMBER ANDERSON: Site Profile.                       |
| 10 | CHAIR MELIUS: Site profile, we may                   |
| 11 | find later that they are actually SEC issues. And    |
| 12 | I think we have, there are examples in the past      |
| 13 | where what we thought could be done couldn't be      |
| 14 | done.  |
| 15 | And I worry more about that in the case              |
| 16 | of here we have an older facility, not good records, |
| 17 | and very limited data. And we ought to just be sure  |
| 18 | that the methods that we'll have in place will work, |
| 19 | particularly with the use of surrogate data, which   |
| 20 | Members of this Board and others have some           |
| 21 | difficulties with.                                   |
| 22 | Let's take a second, and I don't know                |
| 23 | if the petitioners wish to speak. I know they're     |

| 1  | on the line. But if the petitioners would like to   |
|----|---|
| 2  | say anything now, you're welcome to comment.        |
| 3  | You're not required to.                             |
| 4  | MR. FIFER: Yes, I'd like to. It's                   |
| 5  | Robert Fifer.                                       |
| 6  | CHAIR MELIUS: Okay.                                 |
| 7  | MR. FIFER: I couldn't hear too well,                |
| 8  | but what I got was you mentioned something about    |
| 9  | other people that were questioned about this?       |
| 10 | CHAIR MELIUS: Yeah, I think that was                |
| 11 | a reference to the Work Group or to Tom. I can't    |
| 12 | remember. The DCAS staff.                           |
| 13 | MR. FIFER: I didn't quite make it all               |
| 14 | out, you know, what it was about.                   |
| 15 | CHAIR MELIUS: We're just trying to                  |
| 16 | understand how many people potentially worked in    |
| 17 | the facility and might be affected by this          |
| 18 | decision. I think that was what the discussion was  |
| 19 | in terms of that.                                   |
| 20 | Stu, was that, Stu Hinnefeld is going               |
| 21 | to the  |
| 22 | MR. HINNEFELD: Yes. I think maybe                   |
| 23 | the discussion that he's talking about was Tom made |

| 1  | a comment about the number of people who worked on   |
|----|--|
| 2  | each of the operations, and we had our discussion    |
| 3  | about why are so many people getting high, you know, |
| 4  | compensable dose reconstruction.                     |
| 5  | But I think that was we did in fact                  |
| 6  | interview some people who have worked at the site    |
| 7  | as part of our investigation. And I think what Tom   |
| 8  | said was that the people that we talked to said that |
| 9  | these were relatively small operations.              |
| LO | I think that's when we were talking                  |
| L1 | about talking to people. We did interview some of    |
| L2 | the workers at the site.                             |
| L3 | MR. FIFER: I mean, were these people                 |
| L4 | back in the time that my dad worked there?           |
| L5 | MR. HINNEFELD: Well, I don't recall                  |
| L6 | exactly when your dad worked there, but some of them |
| L7 | at least did during                                  |
| L8 | MR. FIFER: Well, he worked there, you                |
| L9 | know, for 40 years. He was 1935 to                   |
| 20 | MR. HINNEFELD: Well, I think that they               |
| 21 | worked during the later operational period. I don't  |
| 22 | know if they worked in 1943 or not. But I believe    |
| 23 | they worked during the uranium and plutonium         |

| 1  | carbide fabrication.                                |
|----|---|
| 2  | MR. FIFER: Because the reason I say                 |
| 3  | that, they'd be pretty old if it was 1943.          |
| 4  | CHAIR MELIUS: Yeah. Any other                       |
| 5  | comments from the Petitioners?                      |
| 6  | MR. FIFER: Jan, you got any?                        |
| 7  | MS. KNAPP: No, I think you covered                  |
| 8  | pretty much what I wanted to say, too. It was way   |
| 9  | back, you know, years ago. But it's just that I     |
| 10 | don't know how you feel, Bob, but I cannot hear a   |
| 11 | lot of it.  |
| 12 | I mean, are people just talking in a                |
| 13 | room or are you guys actually talking on the phone? |
| 14 | Because it's very hard for us to hear.              |
| 15 | MR. FIFER: Yeah, very hard.                         |
| 16 | MS. KNAPP: I mean, the guy that gave                |
| 17 | the seven reasons at the very beginning, we're      |
| 18 | probably lucky if we caught a quarter of that.      |
| 19 | CHAIR MELIUS: Okay. Well, the                       |
| 20 | technology, we're talking on microphones that are   |
| 21 | then put into a phone line. We're doing the best    |
| 22 | we can.   |
|    |   |

MS. KNAPP: Okay, okay.

23

| 1  | CHAIR MELIUS: And there is a                        |
|----|---|
| 2  | transcript of the entire meeting that will be       |
| 3  | available on the website relatively shortly also.   |
| 4  | MS. KNAPP: Okay. Thank you.                         |
| 5  | MR. FIFER: And another thing I would                |
| 6  | like to know, the Wheatfield plant was mentioned,   |
| 7  | but I couldn't hear much on that. What was that     |
| 8  | about?  |
| 9  | MR. HINNEFELD: The comment, I                       |
| 10 | believe, was about a Wheatfield facility. And       |
| 11 | that came up in the discussion because the Board's  |
| 12 | contractor, in reviewing NIOSH's work I'm sorry,    |
| 13 | this is Stu Hinnefeld again from NIOSH.             |
| 14 | The Board's contractor had said, hey,               |
| 15 | we found evidence that there were                   |
| 16 | strontium-yttrium sources used by Carborundum,      |
| 17 | have you considered those? And so that was a        |
| 18 | finding we had to go back and try to find more      |
| 19 | information about.                                  |
| 20 | We found more information about that.               |
| 21 | We found that those sources of radioactivity were   |
| 22 | only used at the Wheatfield facility, not at Globar |
| 23 | or Buffalo Avenue. And the Globar and the Buffalo   |

| 1  | Avenue are the covered facilities. So anything      |
|----|---|
| 2  | used at Wheatfield would not be included in this    |
| 3  | program.  |
| 4  | MR. FIFER: Okay.                                    |
| 5  | CHAIR MELIUS: Okay, thanks.                         |
| 6  | MR. FIFER: So I'm on the understanding              |
| 7  | now that the dose reconstruction is not been redone |
| 8  | yet.  |
| 9  | CHAIR MELIUS: Correct. But the                      |
| 10 | Board's got to we're going to need to deliberate    |
| 11 | and decide what to do. So we haven't decided        |
| 12 | anything yet.                                       |
| 13 | MR. FIFER: Okay.                                    |
| 14 | CHAIR MELIUS: Okay. We will in the                  |
| 15 | next few minutes, though.                           |
| 16 | So, back to the Board. I think we have              |
| 17 | I'm assuming we have actually a motion from the     |
| 18 | Work Group. And I just heard a motion to table.     |
| 19 | So, Henry Anderson has moved to table the motion.   |
| 20 | We have a second from Bill Field. I believe that's  |
| 21 | without debate. So with that, all in well, why      |
| 22 | don't we take a roll call.                          |
| 23 | MR. KATZ: I think you can do it by                  |

| 1  | voice vote.  |
|----|--|
| 2  | CHAIR MELIUS: Okay, well, all in                     |
| 3  | favor?   |
| 4  | (Chorus of ayes)                                     |
| 5  | CHAIR MELIUS: Okay, opposed?                         |
| 6  | (No response)  |
| 7  | CHAIR MELIUS: Okay. So what we will                  |
| 8  | do is we'll table any action on this. I think we're  |
| 9  | asking NIOSH to come back with a proposal on the     |
| 10 | outline on what they will be doing in terms of the   |
| 11 | surrogate data issue, as well as an example dose     |
| 12 | reconstruction based on that.                        |
| 13 | Share it with the Work Group. I                      |
| 14 | believe SC&A would review it. And then I don't       |
| 15 | know the timing, and don't expect to know the timing |
| 16 | now, but we would bring it back at another Board     |
| 17 | meeting, perhaps the next one that we have. But      |
| 18 | that's up to Stu and SC&A to sort of figure out the  |
| 19 | logistics on that.                                   |
| 20 | And we'll keep the petitioners                       |
| 21 | informed. NIOSH/DCAS will keep the petitioners       |
| 22 | informed on what's happening and further meetings    |
| 23 | and then when it will be coming back to the Board.   |

| 1  | So, thank you, everybody.                              |
|----|--|
| 2  | Now we have a Board work session. And                  |
| 3  | Ted's going to correct a mistake.                      |
| 4  | Board Work Session: WG/SC Reports, Scheduling Meetings |
| 5  | MR. KATZ: Yes. First, I'm going to                     |
| 6  | correct one of my mistakes, which is I had told you    |
| 7  | July dates for July 2017 for a Board Meeting. But,     |
| 8  | actually, that had been a problem for Dr. Melius       |
| 9  | and we had rescheduled that already for August 23rd    |
| 10 | and 24th. So, that's the correct date for the          |
| 11 | summer meeting: August 23rd and 24th of 2017. I        |
| 12 | just wanted to straighten that out.                    |
| 13 | And, Paul, another thing is I've spoken                |
| 14 | to James here with the transcription company. But      |
| 15 | we'll look into what the best way is for possibly      |
| 16 | appending the presentations to the transcripts in      |
| 17 | one fashion or another so that they're together in     |
| 18 | a package. So, we'll look into that.                   |
| 19 | MEMBER ZIEMER: Yeah, that's good. I                    |
| 20 | wasn't trying to give anyone a hard time, I just       |
| 21 | was concerned that it was almost too sketchy for       |
| 22 |  |

| 1  | MR. KATZ: No, I understand. I                     |
|----|---|
| 2  | understand. Yeah, I think it's a good concern.    |
| 3  | Thank you.  |
| 4  | MEMBER BEACH: Can I ask, Ted, do we               |
| 5  | know where the August meeting is?                 |
| 6  | MR. KATZ: No, no.                                 |
| 7  | CHAIR MELIUS: Do you have any                     |
| 8  | suggestions we should consider?                   |
| 9  | MEMBER BEACH: We already talked about             |
| LO | three of them.                                    |
| L1 | CHAIR MELIUS: Okay.                               |
| L2 | MEMBER MUNN: It would be a good time              |
| L3 | to be in Colorado.                                |
| L4 | CHAIR MELIUS: Yeah, but then Brad                 |
| L5 | would miss us. Okay. We have time on that one.    |
| L6 | I suspect it will change given the normal flow of |
| L7 | work and so forth. It'll be nice and warm in      |
| L8 | Augusta.  |
| L9 | Okay. So, why don't we start to go                |
| 20 | through the Work Groups and Subcommittee updates, |
| 21 | everybody. And we'll start with you, Dave. Ames   |
| 22 | Laboratory.                                       |
| 23 | MEMBER KOTELCHUCK: Tom Tomes said                 |

23

| 1  | that he has gotten the data and analyzed data with   |
|----|--|
| 2  | respect to the external dose there at Ames Lab for   |
| 3  | the Site Profile, and is now looking at the internal |
| 4  | dose, and, interestingly, said internal dose         |
| 5  | inconsistencies are problems for which he's          |
| 6  | apparently concerned about. He is concerned          |
| 7  | about.   |
| 8  | So, we actually don't have any meeting               |
| 9  | scheduled until he finishes that analysis. So,       |
| 10 | there's really no change. But there has been         |
| 11 | progress in gathering data.                          |
| 12 | CHAIR MELIUS: Would you bring your                   |
| 13 | notebook and just stay at the                        |
| 14 | MR. RUTHERFORD: Yeah, not a bad idea.                |
| 15 | We are looking at a potential infeasibility at Ames  |
| 16 | for a period. And so we're going back to do some     |
| 17 | additional interviews to kind of define this period  |
| 18 | a little better before we move forward.              |
| 19 | And we don't have a date, we don't have              |
| 20 | a good date for that yet because we've got to        |
| 21 | schedule those interviews and go back and do some    |
| 22 | additional data capturing.                           |
| 23 | CHAIR MFI.TIIS: We already have an SEC               |

| 1  | there. I'r  | m trying to remember                      |
|----|-------------|---|
| 2  |             | MR. RUTHERFORD: Yes, we've got an SEC     |
| 3  | up through  | and, actually, Tom Tomes is on the        |
| 4  | phone. He   | could tell me the exact date that we're   |
| 5  | up to.      |   |
| 6  |             | MR. TOMES: Through 1970.                  |
| 7  |             | MR. RUTHERFORD: Through 1970, there       |
| 8  | you go.     |   |
| 9  |             | CHAIR MELIUS: So this is after that,      |
| LO | then?       |   |
| L1 |             | MR. RUTHERFORD: Yes, it is.               |
| L2 |             | CHAIR MELIUS: Okay. Okay. Argonne         |
| L3 | East?       |   |
| L4 |             | MEMBER CLAWSON: We talked about that      |
| L5 | today       |   |
| L6 |             | CHAIR MELIUS: Talk into the mic,          |
| L7 | please.     |   |
| L8 |             | MEMBER CLAWSON: Yeah. It's just at        |
| L9 | the start.  | SC&A has got a paper out there, is that   |
| 20 | correct?    |   |
| 21 |             | MR. STIVER: Yes, delivered that back      |
| 22 | in June, ba | sed on the tasking you had from the March |
| 23 | meeting.    |   |

| 1  | MEMBER CLAWSON: Okay, so that's in                 |
|----|--|
| 2  | NIOSH's hands.                                     |
| 3  | CHAIR MELIUS: Okay. Blockson?                      |
| 4  | Wanda?   |
| 5  | MEMBER MUNN: Nothing happening.                    |
| 6  | CHAIR MELIUS: Okay, that's what I                  |
| 7  | thought.   |
| 8  | MEMBER MUNN: No report.                            |
| 9  | CHAIR MELIUS: You're still on the list             |
| 10 | though, see.                                       |
| 11 | MEMBER MUNN: Yes, we are.                          |
| 12 | CHAIR MELIUS: Brookhaven? Josie?                   |
| 13 | MEMBER BEACH: No report, nothing new.              |
| 14 | MR. RUTHERFORD: I will say, the TBD is             |
| 15 | scheduled to be out in May of 2017.                |
| 16 | CHAIR MELIUS: Okay. So now you have                |
| 17 | something to do, or you will.                      |
| 18 | MEMBER BEACH: We can task SC&A,                    |
| 19 | correct.   |
| 20 | CHAIR MELIUS: Right. Okay,                         |
| 21 | Carborundum we've done.                            |
| 22 | Dose Construction Review Methods.                  |
| 23 | What we're focused on now is the issues of sort of |

| 1  | looking at the consistency in certain parts of the  |
|----|---|
| 2  | dose reconstruction review process.                 |
| 3  | We believe that NIOSH will have a report            |
| 4  | on that from one of their contractors very shortly. |
| 5  | And once we have that report, and NIOSH has had a   |
| 6  | chance to review it and comment, we will be         |
| 7  | scheduling a Work Group meeting to discuss that.    |
| 8  | We may try to do something jointly with             |
| 9  | the Dose Reconstruction Review Subcommittee. But    |
| 10 | we'll figure that out when we see the report and    |
| 11 | figure out the logistics involved. So, anyway, it   |
| 12 | will probably be obviously after the first of the   |
| 13 | year, I think, before we have the meeting and       |
| 14 | report. Yes, Dave?                                  |
| 15 | MEMBER KOTELCHUCK: The Dose                         |
| 16 | Reconstruction Review Subcommittee did discuss the  |
| 17 | report that that was done last March by SC&A. And   |
| 18 | I'll report on that later.                          |
| 19 | CHAIR MELIUS: Okay. Fernald?                        |
| 20 | MEMBER CLAWSON: Fernald, we still                   |
| 21 | have some Site Profile issues. And I believe,       |
| 22 | John, you were working on one of my I guess I'm     |
| 23 | trying to figure out who's hands it's in now, if    |

| 1  | it's in NIOSH or SC&A's.                            |
|----|---|
| 2  | CHAIR MELIUS: So, John, you get to                  |
| 3  | stand by that mic until lunch.                      |
| 4  | MR. STIVER: Okay. We have a review of               |
| 5  | TBD-5 underway. We expect to have that completed    |
| 6  | sometime early in 2017. We also did a review of     |
| 7  | the TBD-4 update. So, both of those pieces of work  |
| 8  | will be coming in. So, probably sometime in         |
| 9  | February or March we could have the Work Group be   |
| 10 | in position to do that.                             |
| 11 | MEMBER CLAWSON: Okay.                               |
| 12 | CHAIR MELIUS: Grand Junction, Bill?                 |
| 13 | MEMBER FIELD: Yeah, Grand Junction,                 |
| 14 | we're finally making some progress. We received     |
| 15 | an SC&A review of the NIOSH SEC evaluation in May.  |
| 16 | And then that evaluation found two concerns and one |
| 17 | finding.  |
| 18 | We met October 5th as a Work Group. And             |
| 19 | there's still some information we need to gather    |
| 20 | yet about information on workplace air monitoring   |
| 21 | data that we need to get that NIOSH is working on.  |
| 22 | So that's what we're waiting for now. As soon as    |
| 23 | that's done, I think we'll be able to wrap things   |

| 1  | up.  |
|----|--|
| 2  | CHAIR MELIUS: Okay, great. Thank                   |
| 3  | you. Any questions?                                |
| 4  | Okay. So, Hanford, I'm the Chair of                |
| 5  | that. I guess my question is for NIOSH or LaVon:   |
| 6  | is our new NIOSH technical person up to speed now? |
| 7  | MR. RUTHERFORD: Yes, he is. He is up               |
| 8  | to speed and we are working to gather new          |
| 9  | information on we've actually got a lot of the     |
| 10 | information on the prime contractors.              |
| 11 | That's been our focus, is to look at               |
| 12 | their bioassay program to make sure that they were |
| 13 | meeting the contract requirements that the         |
| 14 | subcontractors weren't meeting for the reason that |
| 15 | we recommended the Class the last time.            |
| 16 | So, I don't have a good scheduled                  |
| 17 | completion date for that, but we are working or    |
| 18 | that. And I think we can get you a good update     |
| 19 | probably early next month.                         |
| 20 | CHAIR MELIUS: Okay, good. Maybe we                 |
| 21 | can do, like, a technical conference call or       |
| 22 | something with is Arjun still around?              |
| 23 | (Laughter)   |

| 1  | MR. KATZ: Yeah, he exists.                          |
|----|---|
| 2  | CHAIR MELIUS: He exists, he still                   |
| 3  | MR. STIVER: He stops by sometimes.                  |
| 4  | CHAIR MELIUS: Okay, good. Good.                     |
| 5  | Tell him I'll be looking for him soon. Okay.        |
| 6  | Thank you. Idaho/Argonne West.                      |
| 7  | MEMBER SCHOFIELD: We have had                       |
| 8  | there's been a lot of work done on that in the last |
| 9  | while. There's some onsite interviews done          |
| 10 | earlier part of this month.                         |
| 11 | There's more, some of the people they               |
| 12 | were unable to talk to would be interviewed via     |
| 13 | phone. And hopefully all that will be set and       |
| 14 | we'll have a Work Group meeting in January or       |
| 15 | February.   |
| 16 | CHAIR MELIUS: By phone.                             |
| 17 | MEMBER SCHOFIELD: By phone.                         |
| 18 | CHAIR MELIUS: Okay.                                 |
| 19 | MEMBER SCHOFIELD: We didn't want to go              |
| 20 | up Brad's house in the winter.                      |
| 21 |   |
| 22 | CHAIR MELIUS: Okay. And we did                      |
| 23 | receive one report from SC&A in this time period.   |

| 1  | Dr. Ziemer, Lawrence Berkeley update?                |
|----|--|
| 2  | MEMBER ZIEMER: Yeah. There's a                       |
| 3  | pretty complete discussion of that that Lara Hughes  |
| 4  | put on the DCAS summary page. They had a data        |
| 5  | capture, they're still doing data entry. And her     |
| 6  | latest report there indicates that they don't have   |
| 7  | a completion date yet. So we're awaiting on that     |
| 8  | before the Work Groups convenes.                     |
| 9  | CHAIR MELIUS: Okay, thank you.                       |
| 10 | Kansas City, Josie?                                  |
| 11 | MEMBER BEACH: We're waiting on TBDs                  |
| 12 | there, as well. LaVon, I don't know if you have      |
| 13 | any updates on when those are going to be available? |
| 14 | MR. RUTHERFORD: Yeah, it's expected                  |
| 15 | to be complete in December.                          |
| 16 | MEMBER BEACH: Thank you. Next month?                 |
| 17 | MR. RUTHERFORD: Yes.                                 |
| 18 | CHAIR MELIUS: December of '16?                       |
| 19 | (Laughter.)  |
| 20 | MR. RUTHERFORD: I have 12 of '16.                    |
| 21 | '16's the year. So, sometime in December.            |
| 22 | CHAIR MELIUS: Under the tree, we'll                  |
| 23 | find it under the tree?                              |

| 1  | MR. RUTHERFORD: Yeah, I hope so.                    |
|----|---|
| 2  | CHAIR MELIUS: Okay.                                 |
| 3  | LANL, I guess, we'll be covering later              |
| 4  | today. I don't know if you want to say anything     |
| 5  | now, Josie?   |
| 6  | MEMBER BEACH: No.                                   |
| 7  | CHAIR MELIUS: Okay.                                 |
| 8  | MEMBER BEACH: I'll wait for I don't                 |
| 9  | have anything new except for what LaVon is going    |
| 10 | to tell us later.                                   |
| 11 | CHAIR MELIUS: Okay. Mound?                          |
| 12 | MEMBER BEACH: Mound, we did meet for                |
| 13 | TBDs for internal. We closed all items except for   |
| 14 | the V&V. We got a report, I believe it was in       |
| 15 | October, from NIOSH. And SC&A just sent out their   |
| 16 | memo answering NIOSH's earlier memo. So, we need    |
| 17 | to schedule a Work Group meeting to talk about that |
| 18 | V&V.  |
| 19 | And we're still waiting for the                     |
| 20 | external TBD. Maybe LaVon can tell us when that's   |
| 21 | out. I think that's soon.                           |
| 22 | MR. RUTHERFORD: You know, I don't have              |
| 23 | a completion date on that. I know that Dr. Taulbee  |

| 1   | was working on that, and he's been pulled between  |
|-----|--|
| 2   | Idaho and there. So, I will, as soon as I can, get |
| 3   | you a completion, an expected completion on it.    |
| 4   | MEMBER BEACH: Okay. And both those                 |
| 5   | reports are in the Work Group's hands now. So I    |
| 6   | can get with Ted and we can schedule just a quick  |
| 7   | call, maybe before the next Board call.            |
| 8   | MR. KATZ: Yeah, I mean, or we can wait             |
| 9   | until we have the external, right? I mean, it      |
| LO  | depends on what                                    |
| L1  | MEMBER BEACH: That might be it                     |
| L2  | might be nice to close this, the internal out.     |
| L3  | MR. KATZ: Yeah, whatever your                      |
| L 4 | preference.  |
| L5  | MEMBER BEACH: We can talk about it.                |
| L6  | MR. KATZ: Sure.                                    |
| L7  | CHAIR MELIUS: Nevada? Brad?                        |
| L8  | MEMBER CLAWSON: Nevada Test Site, we               |
| L9  | have a Work Group meeting set up for January 5th   |
| 20  | to be able to go over the last remaining issues on |
| 21  | it.  |
| 22  | CHAIR MELIUS: Good. Oak Ridge                      |
| 23  | National Laboratory. Gen's not here. So, I don't   |

| 1  | know if there's any                                |
|----|--|
| 2  | MR. RUTHERFORD: No, we've been                     |
| 3  | actually doing a lot of work with ORNL on the data |
| 4  | and trying to resolve some issues with data        |
| 5  | discrepancies. We've been back and forth with      |
| 6  | different claims in working on that.               |
| 7  | We're also trying to close out our                 |
| 8  | radioiodine issue as well. So those are kind of    |
| 9  | going on concurrently. Lara's here, she can add    |
| 10 | anything that she wanted.                          |
| 11 | CHAIR MELIUS: Okay. Pacific Proving                |
| 12 | Grounds?   |
| 13 | MEMBER LOCKEY: Nothing really to                   |
| 14 | report. We're essentially done with that. Stu      |
| 15 | could probably comment on the current status.      |
| 16 | MR. RUTHERFORD: Yeah, our TBD was                  |
| 17 | revised in June to incorporate the Work Group      |
| 18 | suggestions. I haven't gotten anything since       |
| 19 | then. Stu stepped out of the room, he may have     |
| 20 | additional information.                            |
| 21 | CHAIR MELIUS: Has SC&A been assigned               |
| 22 | to that? I'm not                                   |
| 23 | MR. STIVER: Yeah, our review is                    |

| 1  | complete on that.                                 |
|----|---|
| 2  | CHAIR MELIUS: Okay.                               |
| 3  | MR. RUTHERFORD: So it sounds like it's            |
| 4  | back in our court?                                |
| 5  | MR. STIVER: Yeah.                                 |
| 6  | MR. RUTHERFORD: Okay. I will get a                |
| 7  | better update to Dr. Lockey on that one.          |
| 8  | CHAIR MELIUS: Okay. Pantax, Brad?                 |
| 9  | MEMBER CLAWSON: Yeah, Pantax, we're               |
| 10 | coming to a close on it. But we still have one or |
| 11 | two outstanding. I thought it was a Site Profile  |
| 12 | issue, but I think we're just about done.         |
| 13 | MR. RUTHERFORD: I think we have a TBD             |
| 14 | we're supposed to issue in December. An external. |
| 15 | CHAIR MELIUS: Bill, Pinellas?                     |
| 16 | MEMBER SCHOFIELD: Pinellas, we've                 |
| 17 | closed out, but we still have some issues on K-25 |
| 18 | on the neutron issue.                             |
| 19 | MR. RUTHERFORD: Yeah, that's kind of              |
| 20 | a global issue with the gaseous diffusion plants, |
| 21 | the K-25.   |
| 22 | CHAIR MELIUS: Okay. Is somebody                   |
| 23 | doing something about it?                         |

| 1   | MR. RUTHERFORD: Yes, that is I                      |
|-----|---|
| 2   | guess I left you in suspense there, didn't I?       |
| 3   | CHAIR MELIUS: Yeah. I was like,                     |
| 4   | you'll come back after lunch, we'll                 |
| 5   | MR. RUTHERFORD: No. We are expected                 |
| 6   | to have a report out in March of next year that     |
| 7   | should address that issue for the gaseous diffusion |
| 8   | plants.   |
| 9   | CHAIR MELIUS: Okay, thank you. Rocky                |
| LO  | Flats, Dave?  |
| L1  | MEMBER KOTELCHUCK: We talked about                  |
| L2  | that this morning. And as soon as the DCAS report   |
| L3  | is completed, we'll schedule a Work Group meeting   |
| L 4 | and hopefully have a decision on that, because that |
| L5  | is our remaining unresolved issue, and have a       |
| L6  | decision on that by March.                          |
| L7  | MR. KATZ: Right. And, Dave, I will                  |
| L8  | have SC&A review that before we meet, the report    |
| L9  | from NIOSH.   |
| 20  | MEMBER KOTELCHUCK: Yes, that's right.               |
| 21  | Thanks.   |
| 22  | CHAIR MELIUS: Sandia, Dr. Lemen isn't               |
| 23  | here, but after lunch, LaVon will update us on      |

| 1   | MR. RUTHERFORD: Yeah, you've already              |
|-----|---|
| 2   | stole a bunch of my thunder already.              |
| 3   | CHAIR MELIUS: Well, you sent out your             |
| 4   | slides. That one surprised me.                    |
| 5   | MR. RUTHERFORD: Okay.                             |
| 6   | MEMBER BEACH: Sounds like the Work                |
| 7   | Group might need to meet for that one in the near |
| 8   | future.   |
| 9   | CHAIR MELIUS: Yeah.                               |
| LO  | MEMBER BEACH: For the first time.                 |
| L1  | CHAIR MELIUS: But don't give away too             |
| L2  | much more.  |
| L3  | Santa Susana we'll hear about tomorrow            |
| L 4 | morning.  |
| L5  | Savannah River we'll hear about later.            |
| L6  | Science Issues, David Richardson isn't            |
| L7  | here. I don't know if they've met or              |
| L8  | MR. KATZ: Yeah, there's no update.                |
| L9  | CHAIR MELIUS: Okay. Special                       |
| 20  | Exposure Cohort Issues, there's really nothing    |
| 21  | there, we're caught up.                           |
| 22  | Subcommittee on Dose Reconstruction.              |
| 2.3 | Dose Reconstruction Undate                        |

| 1  | MEMBER KOTELCHUCK: Right. The DRR SC                 |
|----|--|
| 2  | meeting, we've been active and there's plenty to     |
| 3  | report. We met eight days ago and our next           |
| 4  | scheduled meeting is on January 30th.                |
| 5  | First, on the expedited dose                         |
| 6  | reconstruction process, at the last meeting we       |
| 7  | completed the Category 1 cases for Sets 14 through   |
| 8  | 18. And we will begin next meeting to start on the   |
| 9  | Category 2 and that set.                             |
| 10 | People, all of us, were really quite                 |
| 11 | pleased with the results of this expedited process   |
| 12 | that the folks from SC&A had suggested. The          |
| 13 | Category 2 reviews are likely to be similar and take |
| 14 | a fair amount of time, as had been done in the past  |
| 15 | when there were issues. So, we're moving along.      |
| 16 | CHAIR MELIUS: Dave?                                  |
| 17 | MEMBER KOTELCHUCK: Yes.                              |
| 18 | CHAIR MELIUS: Can you explain to me                  |
| 19 | Category 1 and Category 2?                           |
| 20 | MEMBER KOTELCHUCK: Yes. Category 1                   |
| 21 | are issues where there is either it has marginal     |
| 22 | impact on the dose reconstruction, issues where      |
| 23 | there are only marginal impact, moderate impact.     |

| 1  | Category 2 will have much more                    |
|----|---|
| 2  | significant impact, the findings that were found, |
| 3  | than the resolution of it.                        |
| 4  | MR. KATZ: Dave, I mean, the key thing             |
| 5  | between 1 and 2 is 1 are the ones that are more   |
| 6  | easily resolved because there's already agreement |
| 7  | between NIOSH and the contractors and the         |
| 8  | Subcommittee needs to weigh in on that.           |
| 9  | But 2 are ones where they are actually            |
| 10 | quite apart between NIOSH and the contractor.     |
| 11 | MEMBER KOTELCHUCK: Right, okay.                   |
| 12 | MR. KATZ: On what's correct.                      |
| 13 | MEMBER KOTELCHUCK: Yes, yes. Then,                |
| 14 | to discuss a little bit more, we did have a       |
| 15 | discussion on the memo from SC&A in March on the  |
| 16 | consistency in dose reconstruction. And it was    |
| 17 | the first discussion we had had of the memo.      |
| 18 | And I would say first, maybe I should             |
| 19 | read just a little bit of the memo. Maybe the     |
| 20 | summary portion was that it suggested that our    |
| 21 | non-blind dose reconstruction approach is best    |
| 22 | used to verify if assumptions are consistently    |
| 23 | applied within a specific site.                   |

| 1  | And there, the memo suggested six                   |
|----|---|
| 2  | different areas in which we might take a look at    |
| 3  | consistency. And for example, the first one was     |
| 4  | the coworker dose, and the decision about assigning |
| 5  | 50th or 95th percentile.                            |
| 6  | And there was suggestions about how we              |
| 7  | might do this. But the discussion that we had       |
| 8  | and the memo, this memo was sent out by Ted to all  |
| 9  | of you. The discussion we had about it, though,     |
| 10 | I think was more basic than the details of the      |
| 11 | particular aspects of consistency that were         |
| 12 | suggested.  |
| 13 | The first was and I will say, I'll                  |
| 14 | admit I wrote up a set of notes for myself right    |
| 15 | after the meeting and said, hey, good, while it's   |
| 16 | fresh in my mind. Of course, I left that memo back  |
| 17 | home.   |
| 18 | So this is slightly reconstructed and               |
| 19 | I will ask Members of the Subcommittee to comment   |
| 20 | further. But, really, the question was what         |
| 21 | question precisely do we wish to answer by          |
| 22 | examining consistency?                              |
| 23 | I mean, our current evaluation of blind             |

| 1  | dose reconstructions is certainly a very good       |
|----|---|
| 2  | determination of consistency, or precision,         |
| 3  | really, of the measurements. And we went through    |
| 4  | three more on Set 21 at our meeting. And, again,    |
| 5  | they come up with the same basic determination in   |
| 6  | terms of compensation.                              |
| 7  | But there was really a lot of discussion            |
| 8  | about that, and question as to whether this really  |
| 9  | was a worthwhile effort, frankly, by Members of the |
| 10 | Subcommittee.                                       |
| 11 | And also, another question came up                  |
| 12 | which was not which was a discussion, I don't       |
| 13 | know so much a question. But it appeared            |
| 14 | essentially we're evaluating the consistency of by  |
| 15 | dose reconstructors by another group of             |
| 16 | experienced professionals, the Board.               |
| 17 | But basically this is we're really                  |
| 18 | evaluating professional judgement of other          |
| 19 | professionals. And there was some question as to    |
| 20 | how we felt about it, let's put it that way. And    |
| 21 | I don't think that's as precise as I can make it,   |
| 22 | but it's my recollection.                           |
| 23 | Perhaps, if the Chair will agree, other             |

| 1  | Members of the Subcommittee might want to, if a      |
|----|--|
| 2  | discussion is appropriate, might want to talk about  |
| 3  | our discussion.                                      |
| 4  | We certainly agreed that the methods                 |
| 5  | group needs to have further discussion about         |
| 6  | particularly the first question. And I gather,       |
| 7  | and I was not clear myself at that meeting, that     |
| 8  | there will be a report by a consultant to the        |
| 9  | methods group. And that, I would say, was a lapse    |
| LO | in my remembrance of what we discussed in the        |
| L1 | methods.   |
| L2 | CHAIR MELIUS: Well, let me outline the               |
| L3 | procedure.   |
| L4 | MEMBER KOTELCHUCK: Okay.                             |
| L5 | CHAIR MELIUS: The procedure will be we               |
| L6 | will get a report through NIOSH. I'm not sure what   |
| L7 | it will have in terms of recommendations or          |
| L8 | suggestions, but it will outline some potential      |
| L9 | issues that could be looked at, or need to be looked |
| 20 | at.  |
| 21 | In addition to that, we have the earlier             |
| 22 | memo from SC&A, and we also have input from, you     |
| 23 | know, various committees. So, first, we will         |

| 1  | handle it within the Dose Reconstruction Review    |
|----|--|
| 2  | Methods Work Group and come forward with some      |
| 3  | recommendations for considerations for, I think,   |
| 4  | for the full Board.                                |
| 5  | And I think before we engage in any of             |
| 6  | these reviews, I think we should have agreement    |
| 7  | within the Board on what should be the next steps, |
| 8  | because the review of dose reconstructions is      |
| 9  | assigned to the Board. And I think we've always    |
| 10 | done, in terms of methodology and methods and so   |
| 11 | forth, we do it within the Board.                  |
| 12 | So, I mean, that will be the plan. I               |
| 13 | don't know the exact time table because it will    |
| 14 | probably be into earlier/mid-next year when we're  |
| 15 | ready.   |
| 16 | One question I have, two comments sort             |
| 17 | of disturbed me a little bit. One is blind reviews |
| 18 | don't deal with consistency. We're dealing         |
| 19 | because they're even worse than our own individual |
| 20 | dose reconstruction reviews in terms of            |
| 21 | consistency.                                       |
| 22 | I think we're looking at consistency               |
| 23 | for doing the same judging the same set of         |

circumstances and doing a dose reconstruction 1 within a site fairly specifically. Blind reviews, 2 3 I don't think, address that. That's why we maintain blind reviews as a separate process. 4 Secondly, reassure me. 5 I commented to 6 Ted, you're talking about Categories 1 and 2. quess we'll worry about doing the easy ones first 7 and delaying doing the more difficult ones. 8 9 I mean, it's up to the Subcommittee how they want to do it, because I'm not sure it makes a huge 10 difference, except if you have a major finding 11 12 coming from the technical contractor that NIOSH may agree or disagree with or needs discussion. 13 14 I would hope that you would, you know, sort of jump that one in the queue so we're not 15 16 missing something very important. I don't think 17 that's going to be a common occurrence, but it is something that's a little bit -- I'd worry that, 18 you know, if we don't have a Dose Reconstruction 19 Review Subcommittee meeting for six months, I 20 21 wouldn't want to miss a major problem. 22 I don't think you would, but just keep that in mind. 23

| 1  | MEMBER KOTELCHUCK: Well, we are, I                 |
|----|--|
| 2  | have to say, we are meeting frequently. But the    |
| 3  | folks at SC&A, as they suggested this expedited    |
| 4  | process, suggested that we begin this way. This    |
| 5  | is our first. And I think it's a good point that   |
| 6  | you make.  |
| 7  | CHAIR MELIUS: And I suspect that, if               |
| 8  | there was such a finding, that SC&A or somebody    |
| 9  | would jump out.                                    |
| 10 | MEMBER KOTELCHUCK: I believe we                    |
| 11 | would. I believe we would.                         |
| 12 | MEMBER CLAWSON: If I could, actually               |
| 13 | from a Board Member on this, we're not bypassing   |
| 14 | any of we're going real fast on the first ones     |
| 15 | to get those done. We'll go into the other ones    |
| 16 | that we get up to.                                 |
| 17 | What we were getting into as we get on             |
| 18 | one finding, and there was, like, 15 or maybe 6 or |
| 19 | whatever that could be closed out relatively easy  |
| 20 | and we never got to them. And so it was kind of    |
| 21 | just a way for us to be able to swipe that out.    |
| 22 | And personally, myself, I think it's               |
| 23 | made a big difference in being able to address the |

| Τ  | top ones and now they fall into it, too.            |
|----|---|
| 2  | CHAIR MELIUS: Okay. The other                       |
| 3  | comment I would have is my own profession, and the  |
| 4  | profession of others here, by ignoring and refusing |
| 5  | to judge professional judgment in medicine, we've   |
| 6  | killed more people than and I find it disturbing    |
| 7  | that in other fields we're reluctant to look at     |
| 8  | other people's judgment.                            |
| 9  | I mean, I understand the reluctance and             |
| 10 | the difficulty, and I think we've talked about it   |
| 11 | before. But it's hardly something I think we can    |
| 12 | avoid.  |
| 13 | MEMBER KOTELCHUCK: Right.                           |
| 14 | CHAIR MELIUS: And we're obligated in                |
| 15 | the law to review dose reconstruction. So I don't   |
| 16 | think that's a good reason for not going ahead.     |
| 17 | Doesn't it mean we have to be careful about it and  |
| 18 | sensitive about it, and understand that             |
| 19 | professional judgment, you know, is professional    |
| 20 | judgment and it has a range and it doesn't always   |
| 21 | come up with the same approach or the same answer.  |
| 22 | But unreasonable professional judgment              |
| 23 | is not something that we need to tolerate.          |

| 1  | MEMBER KOTELCHUCK: Right. I think                   |
|----|---|
| 2  | that, if I may, that people were, are, were a bit   |
| 3  | uncomfortable about that. And I understand what     |
| 4  | you're saying.                                      |
| 5  | By the way, going back to the issue of              |
| 6  | consistency, I agree with you, you're absolutely    |
| 7  | right that consistency is different than            |
| 8  | precision. It's really the blinds really test       |
| 9  | precision of the process, that we can come, two     |
| 10 | different folks looking at it independently can     |
| 11 | come to the same conclusion as far as compensation. |
| 12 | MEMBER CLAWSON: Also, too, on the                   |
| 13 | professional judgment, I think we had a very        |
| 14 | rousing discussion on that.                         |
| 15 | CHAIR MELIUS: Which is good.                        |
| 16 | MR. KATZ: Apropos of that, what the                 |
| 17 | Subcommittee Members had said is that if you        |
| 18 | actually, I thought maybe you had already heard     |
| 19 | this because you reflected that in what you said    |
| 20 | earlier about the next meeting of the Dose          |
| 21 | Reconstruction Review Methods Work Group is that    |
| 22 | some of them would like to join the Work Group in   |
| 23 | that next discussion of consistency. So, some of    |

| 1  | these other concerns can actually just get          |
|----|---|
| 2  | discussed by a larger group.                        |
| 3  | CHAIR MELIUS: Okay. Thank you, Dave.                |
| 4  | Just tell me where we are in terms of are we        |
| 5  | approaching the end of the backlog? I can never     |
| 6  | keep track of the numbers.                          |
| 7  | MR. KATZ: Well, at best we have three               |
| 8  | more meetings.                                      |
| 9  | CHAIR MELIUS: Okay.                                 |
| 10 | MR. KATZ: That's the closest we might               |
| 11 | be. I tend to find us optimistic. So that's sort    |
| 12 | of the ballpark. But after we deal with a few of    |
| 13 | the type 2, I'll be able to answer that question.   |
| 14 | CHAIR MELIUS: Okay.                                 |
| 15 | MR. KATZ: Because we discussed also                 |
| 16 | the fact that we want to turn on the machine again  |
| 17 | as soon as we have a reasonable prospect of getting |
| 18 | to the new dose reconstructions in a fresh way.     |
| 19 | CHAIR MELIUS: Okay. Good, okay. I                   |
| 20 | just wanted to keep that in mind. Wanda?            |
| 21 | MEMBER MUNN: Before we go on with the               |
| 22 | dose reconstruction, I just wanted to make a        |
| 23 | comment with respect to your concern over the       |

| 2  | MR. KATZ: Wanda, the mic.                           |
|----|---|
| 3  | MEMBER MUNN: From my perspective, the               |
| 4  | new method that we are addressing makes it more     |
| 5  | rational and more feasible for us to quickly        |
| 6  | address hot topics that may come up simply because  |
| 7  | the process that has been suggested is helping us   |
| 8  | clean out the really relatively minor stuff, which  |
| 9  | I shouldn't say that it's minor. It's just that     |
| 10 | in terms of the resolution, the resolutions are     |
| 11 | relatively minor, they've just not have been        |
| 12 | completed yet. And that has a tendency to obscure.  |
| 13 | We look at what we have to address, and we have a   |
| 14 | huge elephant.                                      |
| 15 | If we remove the four legs of the                   |
| 16 | elephant by the simple expedient of looking at the  |
| 17 | relatively easy resolutions, then that gives us a   |
| 18 | much better opportunity to focus quickly and more   |
| 19 | of our time can be spent directly on the hot topics |
| 20 | that come up and the major issues that may affect   |
| 21 | a wider range of doses.                             |
| 22 | Enough for that Subcommittee. There                 |
| 23 | is no new status report to make with respect to     |

1

possibility --

| 1  | Procedures. There is a great deal of effort          |
|----|--|
| 2  | underway right now by both the contractor and by     |
| 3  | the agency in terms of preparing for the first       |
| 4  | face-to-face meeting that this Subcommittee will     |
| 5  | have had in a couple years.                          |
| 6  | So, that is scheduled for January 10th,              |
| 7  | in our most convenient meeting place, Cincinnati.    |
| 8  | And we expect to have a full agenda at that hearing. |
| 9  | CHAIR MELIUS: Good. And I'll save                    |
| 10 | the other elephant stories, whatever                 |
| 11 | (Off microphone comments)                            |
| 12 | CHAIR MELIUS: Yes, yes. There's lots                 |
| 13 | of elephant, I'll call them metaphors, I don't know  |
| 14 | what exactly the term is.                            |
| 15 | MEMBER BEACH: Excuse me. Wanda, did                  |
| 16 | you say that's a face-to-face on the 10th? I         |
| 17 | didn't think it was.                                 |
| 18 | MEMBER MUNN: January 10th, isn't it?                 |
| 19 | MEMBER BEACH: The date's correct, but                |
| 20 | you said it was a face-to-face, and that had me      |
| 21 | scratching my head.                                  |
| 22 | MR. KATZ: Right, it's not in-person.                 |
| 23 | It's by phone.                                       |

| 1  | MEMBER MUNN: That's what I meant. We                 |
|----|--|
| 2  | had hoped for  |
| 3  | CHAIR MELIUS: Oh, okay.                              |
| 4  | MEMBER MUNN: But it's not going to                   |
| 5  | happen.  |
| 6  | CHAIR MELIUS: Okay. TBD-6000, Paul?                  |
| 7  | MEMBER ZIEMER: Yes, I'm going to focus               |
| 8  | mainly on General Steel Industries in my report      |
| 9  | here. I'd just remind you that in June we asked      |
| 10 | SC&A to review Rev 2 of Appendix BB, which is the    |
| 11 | General Steel Industries Appendix for TBD-6000.      |
| 12 | And so that was done. And NIOSH then                 |
| 13 | reviewed that later in the summer/early fall, and    |
| 14 | early this month and early November SC&A gave their  |
| 15 | response. The issue that was raised by SC&A on Rev   |
| 16 | 2 had to do with how you actually, I'm going to say, |
| 17 | input the neutron data, the MCNPX simulation data.   |
| 18 | And there's some disagreement on how                 |
| 19 | that's inputted into the model, even though the      |
| 20 | model itself was agreed upon. And NIOSH has now      |
| 21 | responded to that and we're just giving SC&A a       |
| 22 | chance to look at NIOSH's response.                  |
| 23 | We have a Work Group meeting scheduled               |

| 1  | for December 14th. We're assuming SC&A will have   |
|----|--|
| 2  | finished their review prior to that. And if so,    |
| 3  | we'll go ahead on December 14th and see if we can  |
| 4  | resolve this issue of the input of the neutron     |
| 5  | information into the model.                        |
| 6  | So, hopefully one way or the other we              |
| 7  | can get this resolved. I don't know if that will   |
| 8  | end up requiring a Rev 3 or just an agreement as   |
| 9  | to how you input the data for the neutrons         |
| LO | correctly.   |
| L1 | But that's where we are on that.                   |
| L2 | That's the only item that's weighing heavily on    |
| L3 | TBD-6000 right now.                                |
| L4 | CHAIR MELIUS: Okay. Thank you, Paul.               |
| L5 | Any questions, comments?                           |
| L6 | Uranium Refining? Henry, we're going               |
| L7 | to do it after lunch. You'll be back to the other  |
| L8 | side because I keep looking.                       |
| L9 | MEMBER ANDERSON: We have the SC&A                  |
| 20 | report on Hooker that NIOSH will be reviewing and  |
| 21 | hopefully get their comments to us. And then we'll |
| 22 | be scheduling a phone call once we get that all    |
| 2  | done honefully before the next meeting so we can   |

| 1  | close out Hooker. But I think that's the only      |
|----|--|
| 2  | other thing we have that's currently on our active |
| 3  | agenda.  |
| 4  | CHAIR MELIUS: Okay, great.                         |
| 5  | Surrogate Data, the Work Group is moribund, so we  |
| 6  | haven't had anything for a while.                  |
| 7  | Weldon Springs I don't believe there's             |
| 8  | any activity on.                                   |
| 9  | And Worker Outreach I don't believe                |
| 10 | there's any activity on.                           |
| 11 | So I think we've gone through our Work             |
| 12 | Groups. Did I miss anybody or anybody have         |
| 13 | anything they wish they had said and didn't say?   |
| 14 | Last chance. LaVon, you can sit down. Thank you.   |
| 15 | With that, I would suggest we break for            |
| 16 | lunch. I know it's early, but since we already     |
| 17 | broadcast the schedule, we probably should stick   |
| 18 | to it.   |
| 19 | The assignment over lunch is you should            |
| 20 | at least quickly read through your comments from   |
| 21 | the last meeting in case you have questions or     |
| 22 | comments on that, because I will go through the    |
| 23 | abbreviated version very quickly.                  |

| 1  | So we will break and we will return, I               |
|----|--|
| 2  | believe, at 2 o'clock. Thank you.                    |
| 3  | (Whereupon, the above-entitled matter                |
| 4  | went off the record at 11:41 a.m. and resumed at     |
| 5  | 2:03 p.m.)   |
| 6  | CHAIR MELIUS: Okay. Anyway, welcome                  |
| 7  | back for our afternoon session. And we have a        |
| 8  | number of issues to go over this afternoon and then  |
| 9  | we'll, what, about 5:00 o'clock is the LANL. And     |
| 10 | then after that we will go into the public comment   |
| 11 | period and we will so it will be helpful if you      |
| 12 | can sign up for public comments. There's a sheet     |
| 13 | out at the desk there if you wish to make them later |
| 14 | on. And we may if we get done with some of the       |
| 15 | presentations and so forth earlier, we may start     |
| 16 | a little bit early for the people that are here.     |
| 17 | So, Ted, do you want to go through the               |
| 18 |  |
| 19 | MR. KATZ: Yeah, just a couple things:                |
| 20 | 4:30 is LANL and then 5 is public comment. But let   |
| 21 | me just check and see on the line for Board Members  |
| 22 | who may be on the line.                              |
| 23 | Dr. Lockey, are you there?                           |

| 1  | DR. LOCKEY: Yes, I am.                            |
|----|---|
| 2  | MR. KATZ: Super. And Dr. Poston, I                |
| 3  | think you are?                                    |
| 4  | DR. POSTON: Yes, I am.                            |
| 5  | MR. KATZ: Super. How about I'm not                |
| 6  | sure she'll be with us. But Dr. Reisler, are you  |
| 7  | with us?  |
| 8  | No. How about Dr. Ziemer?                         |
| 9  | MEMBER ZIEMER: Yes, I'm here.                     |
| 10 | MR. KATZ: Great. That's three out of              |
| 11 | four.   |
| 12 | And just related to the public comment,           |
| 13 | I don't know if Jim reminded you, but please sign |
| 14 | up if you're here. Oh, you did that? Not paying   |
| 15 | attention.  |
| 16 | That's it for me. Please mute your                |
| 17 | phones, folks on the line. *6 to mute your phone. |
| 18 | Press *6. That'll mute your phone. Thanks.        |
| 19 | CHAIR MELIUS: And speaking of stars.              |
| 20 | (Laughter.)                                       |
| 21 | MR. RUTHERFORD: I don't get an                    |
| 22 | introduction?                                     |
| 23 | CHAIR MELIUS: Well, I'm getting                   |

You know, the star of the show. Mr. LaVon 1 there. Rutherford will give us his brief update. 2 SEC Petitions Status Update 3 Yes, it will be. 4 MR. RUTHERFORD: 5 Alright. I'm going to give the SEC update for We give this update to give the Advisory 6 NIOSH. 7 Board a chance to prepare for upcoming Work Group meetings and Advisory Board meetings. We're going 8 9 to talk about petitions in qualification, 10 petitions under evaluation, petitions under Board review, and potential 83.14s. 11 So, a little summary. We've had 246 12 13 petitions. We have one petition that's in the qualification process. At the time of preparing 14 15 this report, we had two in evaluation. We only 16 have one in evaluation now, and we have 11 reports with the Advisory Board. 17 18 Petition in qualification, Santa 19 Susana Field Laboratory, this is not the petition that we discussed. This is a new petition and it 20 21 addresses all employees from December 31, 1964 to

present.

22

| 1  | Los Alamos National Lab, which we will            |
|----|---|
| 2  | discuss later, is a continuation of SEC-109. And  |
| 3  | this is an addendum that we plan to present in    |
| 4  | February of this or we actually will complete     |
| 5  | in February and get it to the Work Group.         |
| 6  | Sandia National Lab is a follow-on,               |
| 7  | again, of another petition, SEC-108. It's a       |
| 8  | continuation of that one. And we expect to        |
| 9  | complete that addendum to address the remaining   |
| 10 | years there in June of 2017. So we got a lot of   |
| 11 | addendums coming up.                              |
| 12 | Lawrence Livermore National Lab,                  |
| 13 | again, another continuation, from 1990 to 2014 of |
| 14 | SEC-221. And it will address the remaining years  |
| 15 | and that will follow Sandia and be completed I    |
| 16 | anticipate completion in August of 2017.          |
| 17 | INL, this is a petition that an                   |
| 18 | addendum that we are working on that will address |
| 19 | the reserved areas, the areas of the initial      |
| 20 | evaluation that were not covered. They were       |
| 21 | reserved. We anticipate that one to be complete   |
| 22 | in January.                                       |
| 23 | Metals & Controls is a new petition.              |

| 1  | It's for the residual period, and we expect to have |
|----|---|
| 2  | that report complete in June of 2017 as well.       |
| 3  | So, petitions under Board review,                   |
| 4  | Carborundum was discussed earlier. A lot of these   |
| 5  | we have already discussed during the Work Group     |
| 6  | discussion.   |
| 7  | Feed Materials Production Center,                   |
| 8  | again, we discussed. We are working on a Site       |
| 9  | Profile update due in December that will address    |
| LO | a lot of the remaining issues.                      |
| L1 | Hanford, this is looking at the prime               |
| L2 | contractors. We have made action on the entire      |
| L3 | period of that petition but we are looking at the   |
| L4 | prime contractors who are not covered in the recent |
| L5 | Class edition.                                      |
| L6 | Area IV Santa Susana should be                      |
| L7 | addressed with the petition being discussed         |
| L8 | tomorrow, the 83.14. SEC-93 was the open petition   |
| L9 | that we had that had the remaining year of 1965.    |
| 20 | Again, it should be closed out with the 83.14       |
| 21 | tomorrow.   |
| 22 | Savannah River Site, NIOSH and SC&A                 |
| 23 | have a planned update for that one. And, again,     |

| 1  | Los Alamos National Lab, I mentioned the addendum    |
|----|--|
| 2  | and we have an update scheduled for this meeting.    |
| 3  | Grand Junction Facilities, again, we                 |
| 4  | discussed earlier we are doing additional data       |
| 5  | capture and interviews to close out the to try       |
| 6  | to address some issues that SC&A brought up for the  |
| 7  | 1990-91 period, I believe, on intakes.               |
| 8  | Rocky Flats Plant, again, we discussed.              |
| 9  | We have a CML report coming out next week and should |
| 10 | have some Work Group activities soon after that.     |
| 11 | INL, we have the current Class with the              |
| 12 | Advisory Board under review as well as the addendum  |
| 13 | that I mentioned earlier. That should say January    |
| 14 | 2017, not December, for that expected completion     |
| 15 | of that addendum.                                    |
| 16 | ANL-West is with the Advisory Board and              |
| 17 | SC&A.  |
| 18 | So, these are the sites that are with                |
| 19 | the Advisory Board, but I think we have presented    |
| 20 | a path forward with all of these sites to try to     |
| 21 | address them and close them out.                     |
| 22 | And the 83.14s are the 83.14s we've                  |
| 23 | pretty much said we have had these on here for some  |

| 1  | time. The Sandia National Lab at Albuquerque,       |
|----|---|
| 2  | which used to be the Z Division for LANL, all the   |
| 3  | claims that have been coming in that have           |
| 4  | presumptive cancers have been moving forward in the |
| 5  | SEC. So if we ever get a claim, we will move this   |
| 6  | one forward. Currently, we don't have one, nor do   |
| 7  | we really expect one. Same thing with Dayton        |
| 8  | Project-Monsanto. So, anyway, that is it.           |
| 9  | Questions?  |
| 10 | CHAIR MELIUS: Any questions or                      |
| 11 | comments for LaVon?                                 |
| 12 | MEMBER BEACH: No, I was just going to               |
| 13 | speculate that's quite a date change from December  |
| 14 | 2016 to January 2017.                               |
| 15 | MR. RUTHERFORD: Oh, yeah.                           |
| 16 | MEMBER BEACH: I guess it's only a                   |
| 17 | month.  |
| 18 | MR. RUTHERFORD: Well, you know,                     |
| 19 | honestly our schedule and I won't lie to you,       |
| 20 | our schedule had us completing it, like, December   |
| 21 | 28th. And I was looking at, okay, we've got         |
| 22 | Christmas here and we've got New Year's here. I     |
| 23 | don't think that's probably going to happen. So     |

| 1  | that's why we are pushing it to January.           |
|----|--|
| 2  | CHAIR MELIUS: Stu, have you approved               |
| 3  | the vacations yet?                                 |
| 4  | MR. RUTHERFORD: I don't take vacation              |
| 5  | during that period anyway.                         |
| 6  | CHAIR MELIUS: Okay. Any other                      |
| 7  | questions? I thought I was going to slip you       |
| 8  | slipped up on Argonne-West, but I see you've got   |
| 9  | it in there.                                       |
| 10 | MR. RUTHERFORD: Yeah, I do.                        |
| 11 | CHAIR MELIUS: This addendum stuff is               |
| 12 | new. Board Members on the phone have any           |
| 13 | questions?   |
| 14 | So, a busy year next year. Yeah. For               |
| 15 | everyone. Stu, do you want to get ready? I'm going |
| 16 | to grab a cup of coffee.                           |
| 17 | (Pause.)   |
| 18 | CHAIR MELIUS: While we are getting                 |
| 19 | ready here I guess I will I noticed LaVon did      |
| 20 | use the same formatting on this slide as Stu.      |
| 21 | Savannah River Site SEC Petition Update            |
| 22 | MP HINNEFELD: Well hello again                     |

| 1  | I'm giving a brief update on our Savannah River     |
|----|---|
| 2  | status, mainly because we didn't want to fly Tim    |
| 3  | out here for a short presentation like this. Just   |
| 4  | an update presentation. I will answer questions     |
| 5  | as I am able to. I think I can answer most          |
| 6  | everything on how we're doing.                      |
| 7  | These are the deliverables that we had              |
| 8  | promised had been on our schedule for trying to     |
| 9  | address the remaining issues that are on the table  |
| 10 | at Savannah River having to do with coworker models |
| 11 | and neptunium, thorium work, metal hydrides, and    |
| 12 | then the subcontractor investigation of were        |
| 13 | subcontractors monitored sufficiently.              |
| 14 | There are some date slippages in here               |
| 15 | which you'll see, and I believe I'll get to the     |
| 16 | reasons for those as I go through the remainder of  |
| 17 | the slides. Some of these are completed on time.    |
| 18 | The Plutonium Fabrication Facility construction,    |
| 19 | Report Number 80, should be out this it's just      |
| 20 | the 30th. I guess it's the 30th. So it'll be out    |
| 21 | next month.   |
| 22 | And the thoron exposures we expect to               |
| 23 | be done in January on schedule. So, I think I can   |

| 1  | cover most of the rest of these in the following     |
|----|--|
| 2  | slides.  |
| 3  | Coworker model, remember we're doing                 |
| 4  | this is OTIB-81 we are doing it in phases.           |
| 5  | Revision 3 is to demonstrate the coworker approach   |
| 6  | for tritium and trivalents, right? And then          |
| 7  | Revision 4 will be demonstrating you know,           |
| 8  | incorporating all the radionuclide exposures.        |
| 9  | And so the Revision 3 we're getting out              |
| LO | there just so we can get that to the Work Group and  |
| L1 | to the Board and have a discussion about, you know,  |
| L2 | the propriety and is this the right way to go on     |
| L3 | coworkers.   |
| L4 | Revision 4 will contain all the                      |
| L5 | remaining radionuclides that have internal           |
| L6 | monitoring requirements, which are plutonium,        |
| L7 | uranium, neptunium, mixed fission products,          |
| L8 | strontium, cesium and cobalt.                        |
| L9 | And the reason why this schedule                     |
| 20 | changed or slipped a little bit is because we needed |
| 21 | to code additional data. Now, the explanation        |
| 22 | behind that is that we are using the NOCTS data as   |
| 23 | our database to build these coworkers.               |

| Τ  | we nave, you know, a nuge number of                 |
|----|---|
| 2  | claims from Savannah River, lots of monitoring data |
| 3  | in those claims. We've done some tests on the       |
| 4  | NOCTS database or the NOCTS data in terms of its    |
| 5  | comparability to total data. We've gotten certain   |
| 6  | years where we have gotten all the data and it      |
| 7  | appears that it's sufficient to use for a coworker  |
| 8  | model. And we felt like, okay, great, we can have   |
| 9  | the NOCTS data coded. We will present you know,     |
| 10 | so we will use that as our data set.                |
| 11 | Well, what we forgot when we made that              |
| 12 | schedule was that the NOCTS data that we have isn't |
| 13 | necessarily all the data we got from DOE, because   |
| 14 | of efficiency measures.                             |
| 15 | For instance, if we would get a claim               |
| 16 | with several skin cancers, several basal cell       |
| 17 | carcinomas, we would just enter into you know,      |
| 18 | we'd code the external data, do the dose            |
| 19 | reconstruction with the external data, and          |
| 20 | wouldn't code the internal data.                    |
| 21 | So, you know, we encountered that as we             |
| 22 | began starting work on this, and we realized that   |
| 23 | there was some data we had to code from the DOE     |

responses into NOCTS in order to -- or from, you know, DOE NOCTS into what we call the NOCTS database in order to be able to complete this. So that is the reason for the change in schedule on this item and the new completion date of June of 2017.

Report-70 is thorium exposures after 1972 at the Savannah River Site. It posts thorium exposures and describes thorium work and dose reconstruction methods from '72 to '80 and '80 to '95. After 1980 we are intending to support the use of a 10 percent DAC to bound the thorium doses when thorium operations and inventory were minimal, meaning there wasn't a lot of active work with thorium going on.

The thorium inventory during this period, much of it is irradiated fuel slugs, which is stored and not accessible for exposure. So the actual amount of thorium that is accessible to be exposed to is relatively small, even though during some of these years there is a lot of thorium there. It's in this irradiated fuel storage and isn't really available. It's just being stored. It's not available for exposure or intakes.

2.

| 1  | And the reason for this delay was a                 |
|----|---|
| 2  | delay in getting some air monitoring data out of    |
| 3  | Savannah River. But as you see, that goes back to   |
| 4  | a slip from July to September. So that issue of     |
| 5  | getting information out of Savannah River is        |
| 6  | somewhat old and that's why Greg has not been       |
| 7  | approached lately about any Savannah River          |
| 8  | timeliness issues. And the scheduled completion     |
| 9  | is March of 2017.                                   |
| 10 | Metal hydrides is Report-72, which                  |
| 11 | describes metal hydride exposure at Savannah        |
| 12 | River. It'll discuss the research work operations   |
| 13 | and associated exposures. And the schedule change   |
| 14 | here is due to classification reviews. And part     |
| 15 | of the issue is we wrote our document on a          |
| 16 | classified system, submitted it to Savannah River   |
| 17 | for review to see if it was okay, and they said no, |
| 18 | it's not okay, you're going to have to remove some  |
| 19 | things. And we removed some things and              |
| 20 | resubmitted it and then were told again it wasn't   |
| 21 | okay.   |
| 22 | It's not clear to me today right now                |
| 23 | whether it's because we didn't remove everything    |

they told us to remove or whether the second time 1 around they said, oh, this stuff here shouldn't be 2 3 in there, even though they had seen it before. So it's not clear to me which happened at this point. 4 But for whatever reason, we had to take a couple 5 6 passes through getting this released, or getting it into a form where it could be released to public. 7 And so the scheduled completion now is next month. 8 And then our final, our subcontractor 9 follow-up work, we sampled the job plans randomly, 10 110 construction trades workers 11 selected 12 follow-up. Data capture for all radiological records were conducted on November 14th, the week 13 14 of November 14th. We went down there and captured records for a lot of workers, and now they are at 15 the Savannah River Site classification office for 16 clearance. And once we get that copy of the 17 records, an analysis will be completed and provided 18 to the Savannah River SRS Work Group. 19 So we're in the process there. 20 21 this is maybe a one-month change and I think it 22 might be taking more time to get those records out 23 of Savannah River than we thought. And I believe

| 1  | that's the end of my update. I'll try to answer     |
|----|---|
| 2  | any questions anybody might have.                   |
| 3  | CHAIR MELIUS: Questions for Stu?                    |
| 4  | Board Members on the phone, were there any          |
| 5  | questions?  |
| 6  | MEMBER ZIEMER: None here.                           |
| 7  | CHAIR MELIUS: Okay. Thank you. Why                  |
| 8  | don't we go ahead, and I think Joe Fitzgerald is    |
| 9  | going to present. And then, Stu, don't go far away  |
| 10 | because we may have some more questions for you,    |
| 11 | or some questions for you after Joe presents.       |
| 12 | MR. FITZGERALD: Good afternoon.                     |
| 13 | This will be a bit of a takeoff from what Stu just  |
| 14 | presented. And this will just focus on the          |
| 15 | subcontractor records item that he just briefed on. |
| 16 | Okay. Just a little more background                 |
| 17 | than perhaps he had given. This issue goes back     |
| 18 | to about 2014. Tim and I were doing interviews at   |
| 19 | Savannah River and we interviewed one of the senior |
| 20 | health physicists and he actually was very familiar |
| 21 | with a lot of these records migrations in the 1980  |
| 22 | time frame, which was a crucial time frame for      |
| 23 | Savannah River.                                     |

And he allowed that, you know, pretty 1 much as we already knew, the primary records were, you know, put in electronic form. They were evolved and certainly migrated to the record of -the official record that is being used for dose reconstruction.

> It was the subcontractor records and he commented that, well, those were in hard copy form and those were put in a different file. And he thought perhaps they were migrated sometime a little later but he felt they ended up in the same place.

> But there enough, was you know, speculation involved there that we were both concerned and this was both NIOSH's and from our standpoint that we had a different situation for the subcontractor records than we had for the primary records and there was a need for a real -what we would call a validation and verification that in fact the records are complete and they also were all migrated into the electronic record, which is the basic thing I think we do for all the SECs.

What's proven to be more difficult and

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| 1  | it's more germane to the fact these are              |
|----|--|
| 2  | subcontractor records is it's hasn't been easy       |
| 3  | to both identify the subcontractors, not only the    |
| 4  | first tier but the second and third tier             |
| 5  | construction contractors, and it's also not easy     |
| 6  | to pinpoint whether all those records were in fact   |
| 7  | migrated.  |
| 8  | So there has been a couple of efforts                |
| 9  | that I know Tim led which looked at NOCTS as a basis |
| 10 | for sampling and looked at even the Department of    |
| 11 | Labor's database as a means to sample to validate,   |
| 12 | and in both cases either there wasn't enough         |
| 13 | information or it wasn't feasible to do so.          |
| 14 | So we are sort of at this juncture now               |
| 15 | where we are still asking the same question are      |
| 16 | the subcontractor records complete, quite apart      |
| 17 | from whether they were kept in these separate files  |
| 18 | or not, and did they end up, as this senior HP was   |
| 19 | allowing, that they were eventually all migrated     |
| 20 | into the same database that is being relied upon     |
| 21 | today.   |
| 22 | So, again, I think we still haven't                  |
| 23 | answered those questions.                            |

| 1  | And I won't go through this. You heard              |
|----|---|
| 2  | this in the last briefing and the last Board        |
| 3  | meeting. Certainly, quite a few construction job    |
| 4  | plans were found by virtue of the way the employee  |
| 5  | number is catalogued on those lists. You can tell   |
| 6  | by the prefix and this is nice because most sites   |
| 7  | don't do this but you get a prefix that shows       |
| 8  | which ones are prime contractors, i.e., in this     |
| 9  | case, DuPont, and which ones are subcontractors by  |
| 10 | looking at that number.                             |
| 11 | So I think from that standpoint what                |
| 12 | as Stu was saying, what's going on now is basically |
| 13 | you identify a sample from that those 3,000 pages   |
| 14 | of construction job plans and you walk that and     |
| 15 | compare that to the bioassay records, which are in  |
| 16 | microfiche, and see if you get a match up or not.   |
| 17 | And these would be subcontractor                    |
| 18 | employees that should have been, quote-unquote,     |
| 19 | bioassayed by virtue of the work they were doing,   |
| 20 | which in this case would have been plutonium or     |
| 21 | neptunium or obvious operations at facilities that  |
| 22 | would have required bioassay.                       |
| 23 | Okay. So the tasking that we got was                |

based on a concern, I think, that was expressed at 1 the last Board meeting that, you know, this was 2 3 probably the right way to go, you know, even though there was a couple false starts in the past. 4 This was the, certainly, an appropriate 5 6 path to go. But the concern there was this was a 7 four- or five-year period covering one facility in the early 1980s and would there not be some concern 8 9 whether that would be reflective or representative of a site like Savannah River where you have a lot 10 of different operations and a 30-, 40-year span of 11 12 operational concerns? So the issue here was could one, for 13 14 efficiency's sake, pick up the pace, look at more facilities, look at more time periods and come up 15 16 with a broader conclusion that would guide the Board, I think, on the question of whether the 17 subcontractor records were in fact complete and 18 available for dose reconstruction. 19 20 So this is the sort of genesis of what 21 we are doing now actually in coordination with and collaboration with NIOSH. We are going through 22

and reviewing the electronic search system, the

| 1  | EDWS, to identify other facilities, other           |
|----|---|
| 2  | operations that would likely have                   |
| 3  | subcontractor-identified records.                   |
| 4  | And what we are focusing on, quite                  |
| 5  | frankly, are kind of the same things that I think   |
| 6  | Tim and his team focused on, which is you know,     |
| 7  | you got safe work permits, rad work permits. You    |
| 8  | got training rosters.                               |
| 9  | You have a number of different reports              |
| 10 | and documents that would catalogue workers by       |
| 11 | virtue of their names, their employee numbers, what |
| 12 | have you. And looking at that you can find the      |
| 13 | subcontractors and basically use that information   |
| 14 | to identify whether or not they have records in     |
| 15 | terms of bioassay records and external records.     |
| 16 | Now, you know, it's not a sure-proof                |
| 17 | thing. I mean, I've been going through the          |
| 18 | electronic search and what you're looking for is    |
| 19 | really document boxes that may actually contain     |
| 20 | these kinds of records.                             |
| 21 | You don't have a surefire way of knowing            |
| 22 | it. So you really do have to go to the site and     |
| 23 | you do have to go through these boxes and see if    |

you do find the appropriate information to in fact 1 base a sampling on. 2 3 So the whole exercise is to get to the same place that I think NIOSH is right now, which 4 is a sampling -- a random sampling of subcontractor 5 IDs which we can then crosswalk against the 6 7 bioassay records which are on microfiche and I think we will probably also, just be a little bit 8 9 more complete, look at the electronic databases as well just to see if we can also see the badging 10 showing up there. 11 12 We are pretty sure the externals are okay mainly because that was handled differently 13 14 than the internal bioassay records. The internal 15 records in bioassay were а separate file, 16 microfiched, and not certainly in the electronic 17 database. We had a number of sessions on this. 18 one technical call we had, I think, with NIOSH and 19 20 the Work Group the only issue that was outstanding 21 was the familiar question of how good is good 22 enough, which is, you know, okay, so we go through

do

come up

this exercise and we

23

with

| 1  | perspectives on, you know, to what extent the      |
|----|--|
| 2  | contractor records contain these bioassay records. |
| 3  | You can match them up and they in fact             |
| 4  | did get bioassays. Is it good enough to have 95    |
| 5  | percent completeness? Is it 90 percent             |
| 6  | completeness you know, at what you know, what      |
| 7  | degree of adequacy and completeness. Again, this   |
| 8  | is a very familiar question.                       |
| 9  | I think we have had this all along going           |
| 10 | back in all the SECs. How good is good enough when |
| 11 | it comes down to whatever results would come out   |
| 12 | of with this, and how will the Board address       |
| 13 | that? And there is no, you know, simple answer.    |
| 14 | I think we have used the 95th percentile. We have  |
| 15 | used, in some cases, 99. You know, it's a judgment |
| 16 | call.  |
| 17 | Okay. Where things stand right now is              |
| 18 | I had to get my EDWS access renewed. I don't want  |
| 19 | to treat that lightly. That was an effort, you     |
| 20 | know.  |
| 21 | It probably took me about a month and              |
| 22 | a half to get to get keyed into the system. I      |
| 23 | was in the system before but they changed some of  |

| Τ  | the procedures and the access points in the that    |
|----|---|
| 2  | had to be done.                                     |
| 3  | I completed the EDWS search. I sent                 |
| 4  | the results over to NIOSH. I think we are okay in   |
| 5  | terms of comparability. We want apples and          |
| 6  | apples. We don't want to go through all this        |
| 7  | exercise and find out the process was different     |
| 8  | enough that you really can't compare the results.   |
| 9  | So we are doing this very carefully to              |
| 10 | make sure it's going to be comparable and that the  |
| 11 | process is similar. I have already submitted the    |
| 12 | data request to SRS. I haven't sent the official    |
| 13 | letter but they are reviewing the box request       |
| 14 | about 70 boxes and we are shooting probably now,    |
| 15 | with some of the delays, shooting for the first two |
| 16 | weeks of January for a on-site.                     |
| 17 | That'll be a joint NIOSH-SC&A review                |
| 18 | and we will then proceed to match up as Stu was     |
| 19 | indicating, we will match up the identified         |
| 20 | subcontractors with the corresponding SRS dose      |
| 21 | records. Any questions?                             |
| 22 | CHAIR MELIUS: Board Members with                    |
| 23 | questions? If not, I do have some. To what extent   |

| 1   | does your sample overlap with what NIOSH is doing?  |
|-----|---|
| 2   | MR. FITZGERALD: We are not doing the                |
| 3   | construction job plans.                             |
| 4   | CHAIR MELIUS: Okay.                                 |
| 5   | MR. FITZGERALD: So there is no overlap              |
| 6   | on that. I mean, the focus of the ongoing effort    |
| 7   | by Tim's team is the 3,000 pages of construction    |
| 8   | job plans for 1981 to 1985, I think it is, for 773A |
| 9   | one facility.                                       |
| LO  | CHAIR MELIUS: Yes.                                  |
| L1  | MR. FITZGERALD: Okay. We are                        |
| L2  | reviewing 1980 through 2000 20 years across         |
| L3  | probably about seven or eight facilities.           |
| L 4 | CHAIR MELIUS: Okay.                                 |
| L5  | MR. FITZGERALD: Now, again, we don't                |
| L6  | know what's going to be in the boxes. But that's    |
| L7  | pretty much the search parameter and what we are    |
| L8  | asking for. So it's going to be a broader scope     |
| L9  | and a broader time period.                          |
| 20  | CHAIR MELIUS: Yes.                                  |
| 21  | MR. FITZGERALD: But not that facility               |
| 22  | for those five years.                               |
| 2.3 | CHAIR MELIUS: Okav. Okav. I was                     |

| 1  | just trying to understand that part of it. And      |
|----|---|
| 2  | where is do you know where NIOSH, slash, ORAU       |
| 3  | is with what with their activities?                 |
| 4  | MR. FITZGERALD: Yes, I think you                    |
| 5  | mentioned it.                                       |
| 6  | MR. HINNEFELD: Yes, we are I think                  |
| 7  | we are awaiting the records which we identified.    |
| 8  | We have identified a group of 110 construction      |
| 9  | trade workers from those construction work plans    |
| 10 | who we feel like, from the construction work plans, |
| 11 | should have been monitored and therefore should     |
| 12 | have monitoring data.                               |
| 13 | We have gone to search the records,                 |
| 14 | which were on microfiche, and these are not         |
| 15 | claimants necessarily. Gone to search the records   |
| 16 | which are on microfiche and then I am waiting to    |
| 17 | get those released from Savannah River and we       |
| 18 | anticipate we will be have our report done in       |
| 19 | March of this coming year.                          |
| 20 | CHAIR MELIUS: And Joe, about how many               |
| 21 | do you have any idea how many people would be       |
| 22 | included in your records that you're pulling?       |
| 23 | MR. FITZGERALD: Not yet. I mean, I                  |

| 1  | think it's going to be as much dictated by what we  |
|----|---|
| 2  | find. I mean, I think when Tim found the 3,000      |
| 3  | pages, they were able to scan through those as I    |
| 4  | did, actually, when I was online with those, and    |
| 5  | you could certainly identify the subcontractors,    |
| 6  | the time periods.                                   |
| 7  | You could do a sampling. In this case,              |
| 8  | until we actually find the records and look at the  |
| 9  | records, we probably don't know what the sample     |
| 10 | size is going to be.                                |
| 11 | My, you know, rough estimate would be               |
| 12 | 300 or 400, I think, as far as the sample size. But |
| 13 | that's not a statistical-based sample size and it's |
| 14 | hard to project until we actually see what we find. |
| 15 | The construction job plans were very                |
| 16 | straightforward. They listed the personnel and      |
| 17 | had the de-identifiers there. I don't know what     |
| 18 | we are going to find in these other searches.       |
| 19 |   |
| 20 | I am hopeful that since we use the same             |
| 21 | kind of search parameters they will be similar and  |
| 22 | we will find similar information. But, you know,    |
| 23 | again, we really don't know until we look at it.    |

| But I think I would err in more sampling than not   |
|---|
| and trying to cover more diverse facilities and     |
| time periods. My concern is, at Savannah River,     |
| they increasingly outsourced the subcontractors in  |
| the late '80s into the early '90s, particularly     |
| with the D&D and remediation work they were doing.  |
| So at that point the centralized management that    |
| DuPont enjoyed sort of eroded and became more       |
| decentralized. So I think if we can get some        |
| match-ups in that time frame and we have confidence |
| in those that's going to help answer the question   |
| that we are trying to answer, which is okay, across |
| not only the '80s but into the '90s do you still    |
| see, you know, the records that correspond with the |
| subcontractors that are identified or not and, you  |
| know, that I think that would give us confidence    |
| to recommend to you that, you know, it seems like   |
| we are okay across different facilities, across     |
| different time frames. I mean, if it's good in the  |
| late '80s it will be probably good before and after |
| because that was probably the most disjointed time  |
| period. You had a lot of subs coming on site.       |
| CHAIR MELIUS: Yes. I was going to say               |

| 1  | it was, I think, the the larger the sample the       |
|----|--|
| 2  | better we are. I mean, it goes back to your          |
| 3  | question well, what's adequate. Well, adequate       |
| 4  | also depends on how big your sample is and how       |
| 5  | representative that sample is or, you know, how big  |
| 6  | a universe is that sample coming from and how is     |
| 7  | it drawn from that.                                  |
| 8  | MR. FITZGERALD: Yes. Actually, the                   |
| 9  | limiting case is not so much copying down the        |
| 10 | identifiers. I think we can do that relatively       |
| 11 | easy. It's the matching up by hand                   |
| 12 | CHAIR MELIUS: Yes.                                   |
| 13 | MR. FITZGERALD: with the                             |
| 14 | microfiche, which takes time and, you know, I        |
| 15 | think, you know, if you have several hundred or more |
| 16 | to match up the microfiche this is not automated.    |
| 17 | So I am trying to picture this. Yes, that would      |
| 18 | that would be a that would take some effort.         |
| 19 | But what we will try to do is, ever                  |
| 20 | though we are starting later than NIOSH, hopefully   |
| 21 | in January-February, do catch up. So we are going    |
| 22 | to you know, we will catch up with that schedule     |
| 23 | and be able to present our results about the same    |

| 1   | time in March.                                   |
|-----|--|
| 2   | CHAIR MELIUS: Yes, but if you think              |
| 3   | about the whole approach, one is you're assuming |
| 4   | that the NOCTS database is representative.       |
| 5   | MR. FITZGERALD: The what database?               |
| 6   | CHAIR MELIUS: The NOCTS what NIOSH               |
| 7   | is using is their basis for their coworker       |
| 8   | models, right, for -                             |
| 9   | MR. FITZGERALD: Actually, we are                 |
| 10  | going to primary records. We are -               |
| 11  | CHAIR MELIUS: No no no, I am talking             |
| 12  | about -  |
| 13  | MR. FITZGERALD: Oh.                              |
| 14  | CHAIR MELIUS: for on a first                     |
| 15  | level for the coworker model what I heard Stu    |
| 16  | just say, I thought.                             |
| 17  | MR. HINNEFELD: Yes. That's not a                 |
| 18  | part of the subcontractor task. But yes, our     |
| 19  | but we are                                       |
| 20  | CHAIR MELIUS: But it includes the                |
| 21  | subcontractors, right?                           |
| 22  | MR. HINNEFELD: our view is that the              |
| 2.3 | NOCTS database is essentially a representative   |

| 1  | sampling of all of all workers.                     |
|----|---|
| 2  | CHAIR MELIUS: Yes.                                  |
| 3  | MR. HINNEFELD: And so that yes,                     |
| 4  | that's the basis for it.                            |
| 5  | CHAIR MELIUS: And you have two                      |
| 6  | separate approaches or considerations to how        |
| 7  | showing that that's whether or not that's           |
| 8  | representative. One, for the production workers     |
| 9  | they have a different set of records.               |
| 10 | MR. HINNEFELD: Right. Yes.                          |
| 11 | CHAIR MELIUS: And then for                          |
| 12 | construction workers where you have a much more     |
| 13 | less precise set of just employment records. We     |
| 14 | don't know how good that is and therefore how       |
| 15 | representative it may be -                          |
| 16 | MR. HINNEFELD: Yes.                                 |
| 17 | CHAIR MELIUS: and it's very                         |
| 18 | complicated. So I am saying we are going from       |
| 19 | there and then now we are trying to validate with,  |
| 20 | you know, two separate sets of ways of identifying. |
| 21 | MR. HINNEFELD: I'm sure Tim could                   |
| 22 | speak more knowledgeably about that than I could.   |
| 23 | But yes, that's that is the situation we'd be       |

| 1  | in.   |
|----|---|
| 2  | CHAIR MELIUS: Yes. Yes, no, I we                    |
| 3  | are, and then we have this other so I think it gets |
| 4  | very I mean, I am very skeptical on the approach    |
| 5  | that Tim is using simply because it's limited to    |
| 6  | such a small number. It'll be useful supplemental   |
| 7  | data but it doesn't answer some of the primary      |
| 8  | questions that you have as to what, you know, how   |
| 9  | complete are these and were people actually sampled |
| 10 | and so forth and so on. So I think until we can     |
| 11 | put all of them together it's very hard to come to  |
| 12 | any conclusions, especially until the SC&A effort   |
| 13 | gets -  |
| 14 | MR. FITZGERALD: Yes. I was going to                 |
| 15 | add that yes, that's absolutely true. We are        |
| 16 | actually going back to a primary question -         |
| 17 | CHAIR MELIUS: Yes.                                  |
| 18 | MR. FITZGERALD: that wasn't                         |
| 19 | resolved or answered in the first place and -       |
| 20 | CHAIR MELIUS: Right.                                |
| 21 | MR. FITZGERALD: trying to go back                   |
| 22 | and answer that at the same time that we are pretty |
| 23 | far along   |

| 1  | CHAIR MELIUS: Yes.                                 |
|----|--|
| 2  | MR. FITZGERALD: on the other                       |
| 3  | things.  |
| 4  | CHAIR MELIUS: Yes.                                 |
| 5  | MR. FITZGERALD: And, again, this I                 |
| 6  | think there was an assumption that the records had |
| 7  | been migrated and everything was fine and this     |
| 8  | revelation of a couple years ago was that no,      |
| 9  | actually there were two separate systems at play   |
| 10 | here -   |
| 11 | CHAIR MELIUS: Yes.                                 |
| 12 | MR. FITZGERALD: and that required                  |
| 13 | then that you go back and actually validate that   |
| 14 | your records did in fact wind up where they should |
| 15 | have been.   |
| 16 | CHAIR MELIUS: Yes. Other questions,                |
| 17 | comments?  |
| 18 | MEMBER ZIEMER: Jim, this is Paul. I                |
| 19 | have a question for Joe.                           |
| 20 | CHAIR MELIUS: Okay. Go ahead, Paul.                |
| 21 | MEMBER ZIEMER: Yes. Joe, I assume in               |
| 22 | your second to the last second to the last slide   |
| 23 | which you called remaining questions I assume      |

| 1   | that's more than a rhetorical question. Are you     |
|-----|---|
| 2   | going to -  |
| 3   | MR. FITZGERALD: Yes, absolutely.                    |
| 4   | MEMBER ZIEMER: Are you going to try to              |
| 5   | establish that establish the adequacy criteria      |
| 6   | before you actually do the sampling? I mean         |
| 7   | MR. FITZGERALD: Yes, I it certainly                 |
| 8   | would be statistically pure.                        |
| 9   | MEMBER ZIEMER: statistically                        |
| LO  | average, it becomes very subjective.                |
| L1  | MR. FITZGERALD: The problem is,                     |
| L2  | understanding the nature of the beast, which is you |
| L3  | don't know what you have until you actually look.   |
| L4  | We don't know what                                  |
| L5  | MEMBER ZIEMER: I understand that.                   |
| L6  | MR. FITZGERALD: We don't know the data              |
| L7  | that we are actually looking at until we don't      |
| L8  | even know what the n is. n equals, you know,        |
| L9  | numbers of subcontractor identified                 |
| 20  | subcontractors until we actually go in and look and |
| 21  | we don't know how many per facility.                |
| 22  | So it is kind of a rhetorical question              |
| 2.3 | in the sense that we are going to go ahead and find |

| Τ  | these records, identify the numbers.               |
|----|--|
| 2  | In parallel I've talked to John about              |
| 3  | this we are going to have somebody look at the     |
| 4  | statistics just because it's an obvious question   |
| 5  | that we are going to need to at least understand   |
| 6  | the ramifications and get some it must be like     |
| 7  | I said, in the first week of second week of        |
| 8  | January we will have the what the n number is      |
| 9  | number of records.                                 |
| 10 | MEMBER ZIEMER: Yeah, I guess                       |
| 11 | (Simultaneous speaking.)                           |
| 12 | MR. FITZGERALD: And during that same               |
| 13 | time frame we are going to have somebody look at   |
| 14 | the statistics -                                   |
| 15 | MEMBER ZIEMER: Yes.                                |
| 16 | MR. FITZGERALD: and help us decide,                |
| 17 | because there is a phase two of this thing is      |
| 18 | matching up the subcontractor identifiers to the   |
| 19 | records themselves the actual radiation            |
| 20 | records. So it would be helpful to know, you know, |
| 21 | do we need 500, do we need 700. I mean, so that's  |
| 22 | what we are going to try to do in parallel is get  |
| 23 | that advice from, I quess, Harry or Harry          |

| 1  | Chmelynski, our statistician, and give us at least  |
|----|---|
| 2  | a rough idea of, you know, you're going to need,    |
| 3  | you know, hundreds in order to have a statistically |
| 4  | sound sample or not.                                |
| 5  | So in the second phase we will have to              |
| 6  | go ahead and match that up and that's going to be   |
| 7  | two trips. I mean, the first trip -                 |
| 8  | MEMBER ZIEMER: Okay.                                |
| 9  | MR. FITZGERALD: is really to                        |
| 10 | identify the subs. The second trip is to match      |
| 11 | that up against the microfiche where the bioassay   |
| 12 | records reside and that's again, that's another     |
| 13 | whole tall order of work and we are hopeful that    |
| 14 | we can do that maybe in late January into February. |
| 15 | MEMBER ZIEMER: Well, once you get the               |
| 16 | sort of the n value, you're going to try to         |
| 17 | establish the measure of adequacy value.            |
| 18 | MR. FITZGERALD: Right. I think                      |
| 19 | like I said, that's sort of the discussion we have  |
| 20 | had within SC&A is that we do need to have that     |
| 21 | looked at and that needs to guide our second phase, |
| 22 | which is to figure out how many we need to match    |
| 23 | up to have a you know, at least a statistically     |

| 1   | sound it's not going to be a pure analysis but       |
|-----|--|
| 2   | at least it'll be guided by some review and analysis |
| 3   | that we will present to the Board at the same time.  |
| 4   | MEMBER ZIEMER: Well, it's the impure                 |
| 5   | analysis that we are worried about.                  |
| 6   | CHAIR MELIUS: You know, but Paul, I                  |
| 7   | mean, and everybody here actually it's not just      |
| 8   | a Paul question but I think we also have to          |
| 9   | recognize that we are not just looking at the        |
| LO  | as a single, you know, uniform source of records.    |
| L1  | MEMBER ZIEMER: Right. Right.                         |
| L2  | CHAIR MELIUS: There may be years where               |
| L3  | things are missing or better or worse or whatever    |
| L4  | and everything may be fine for 15 years and six      |
| L5  | years may be terrible and then -                     |
| L6  | MEMBER ZIEMER: Right. There may be                   |
| L7  | years where it's good and others where it's bad.     |
| L8  | CHAIR MELIUS: Yes.                                   |
| L9  | MR. FITZGERALD: We really don't have                 |
| 20  | any idea, you know. In looking at this looking       |
| 21  | at these collections we don't have any idea what     |
| 22  | fraction of the true number this represents.         |
| 2.3 | There is just no way of knowing that you know.       |

| 1  | how many records have been lost, how many records    |
|----|--|
| 2  | were destroyed, how many records weren't kept in     |
| 3  | the first place. All we are going to be able to      |
| 4  | do is identify if the ones we can identify, in fact, |
| 5  | have corresponding rad records associated with       |
| 6  | them.  |
| 7  | MEMBER ZIEMER: Right.                                |
| 8  | MR. FITZGERALD: That answers a good                  |
| 9  | part of the question, not all the questions.         |
| 10 | MEMBER ZIEMER: Thanks.                               |
| 11 | CHAIR MELIUS: Paul, if you'd like to                 |
| 12 | answer those rhetorical questions for us you're      |
| 13 | we'd welcome it.                                     |
| 14 | MEMBER ZIEMER: Right. Yeah, right.                   |
| 15 | CHAIR MELIUS: Okay. Anybody else                     |
| 16 | with comments or questions? Okay.                    |
| 17 | Dose Reconstruction Report to the Secretary          |
| 18 | Okay. I am going to sit here after                   |
| 19 | that. I refuse to move here. So dose                 |
| 20 | reconstruction report to the Secretary. Ted          |
| 21 | circulated the most recent draft of the letter to    |
| 22 | the Secretary in our report. That incorporated       |

| 1  | comments that I received from Board Members and Ted  |
|----|--|
| 2  | and Jenny and others.                                |
| 3  | But I think that was it, and so forth,               |
| 4  | and there were not a large number of those but there |
| 5  | were some. There are probably still some typos,      |
| 6  | as Dave reminded me over breakfast and we had        |
| 7  | discussions grammatical discussions over that.       |
| 8  | We wish you were here for breakfast, Paul. It        |
| 9  | would have probably could have helped us out with    |
| 10 | our discussions.                                     |
| 11 | So I guess I am interested now in what               |
| 12 | are there other comments? If there are if            |
| 13 | they are grammatical or phrasing or whatever and,    |
| 14 | you know, not don't substantially change the         |
| 15 | meaning of the report, whatever, I think we can      |
| 16 | just, you know, forward them and those will be       |
| 17 | incorporated and we will, obviously, do a final      |
| 18 | proofing before we send it out.                      |
| 19 | But if there are significant things                  |
| 20 | that would change a conclusion or a finding or       |
| 21 | whatever then we probably need to discuss that       |
| 22 | among the full Board here. So I open it up. Dave?    |
| 23 | MEMBER KOTELCHUCK: I don't it's                      |

| 1  | fine. The cover letter is, in my opinion, perfect.   |
|----|--|
| 2  | I don't have any suggested changes. There are no     |
| 3  | substantial changes I can see in the report that     |
| 4  | was circulated.                                      |
| 5  | I do have a number of editorial changes              |
| 6  | and I found three typos, and others, I am sure, have |
| 7  | found them too. Twice the word cases. But and        |
| 8  | I'll send them but I'll send them to you, Jim.       |
| 9  | But otherwise I think it's ready to go and it's      |
| LO | nice. The data was up we started analyzing the       |
| L1 | data that went up through November 1st, 2015. So     |
| L2 | it's a year later. We have circulated and we have    |
| L3 | gone over everything. I think we are ready to go     |
| L4 | and this seems like an appropriate time.             |
| L5 | CHAIR MELIUS: Anybody else? Wanda?                   |
| L6 | MEMBER MUNN: One can't help but be                   |
| L7 | amazed at how well it has come together, actually.   |
| L8 | And so it's a very good report.                      |
| L9 | CHAIR MELIUS: I think everybody                      |
| 20 | contributed. Is that any Board Members on the        |
| 21 | phone wish to comment?                               |
| 22 | MEMBER ZIEMER: Well, it seems to be                  |
| 23 | free of dangling participles.                        |

| 1  | CHAIR MELIUS: Okay. We discovered                  |
|----|--|
| 2  | with our -   |
| 3  | MEMBER ZIEMER: If you caught the                   |
| 4  | spelling errors, then I am good to go.             |
| 5  | CHAIR MELIUS: Okay. I discovered                   |
| 6  | with some of you former professor types, you know, |
| 7  | the dangling participle one we have a semicolor    |
| 8  | one also who's very opposed to semicolons. I got   |
| 9  | chastised for that also. So I was feeling sorry    |
| 10 | for the poor students, the large number that had   |
| 11 | to go through class and learn grammar again. Okay. |
| 12 | If not, then I think we need a motion. Dave?       |
| 13 | MEMBER KOTELCHUCK: So moved that we                |
| 14 | approve the report and the cover letter.           |
| 15 | MEMBER CLAWSON: Second.                            |
| 16 | CHAIR MELIUS: Okay. Voice vote I                   |
| 17 | can -  |
| 18 | MR. KATZ: I don't see why not.                     |
| 19 | CHAIR MELIUS: Okay. All in favor.                  |
| 20 | (Chorus of ayes.)                                  |
| 21 | Opposed.   |
| 22 | (No response.)                                     |
| 23 | And abstained?                                     |

| 1  | (No response.)                                     |
|----|--|
| 2  | MEMBER ZIEMER: I second it. I just                 |
| 3  | wanted to add, since this is important for the     |
| 4  | Secretary, don't we need to log in our individual  |
| 5  | votes?   |
| 6  | MR. KATZ: I'm sorry. Paul, it was                  |
| 7  | hard to hear what you said.                        |
| 8  | MEMBER ZIEMER: I said since this is                |
| 9  | actually a report for the Secretary, don't we need |
| 10 | to individually vote on it?                        |
| 11 | MR. KATZ: I don't think so. I think                |
| 12 | this vote is fine for this. It's just              |
| 13 | MEMBER ZIEMER: Okay.                               |
| 14 | MR. KATZ: a report.                                |
| 15 | MEMBER ZIEMER: I voted yes. I just                 |
| 16 | wanted to make sure we are                         |
| 17 | MR. KATZ: Okay.                                    |
| 18 | MEMBER ZIEMER: procedurally okay.                  |
| 19 | MR. KATZ: Okay. Fine. It'll be on                  |
| 20 | me.  |
| 21 | MEMBER CLAWSON: I'll be right there                |
| 22 | with a dangling participle.                        |
| 23 | CHAIR MELIUS: Yes. And I would ask                 |

| 1   | Ted, though, to check with the Board Members who    |
|-----|---|
| 2   | are not on the able to attend or be on the phone.   |
| 3   | MR. KATZ: Right. That'll be part of                 |
| 4   | my follow-up which I do after every Board meeting.  |
| 5   | Thanks.   |
| 6   | CHAIR MELIUS: Yes. Yes, so that we do               |
| 7   | that because it does represent conclusions from the |
| 8   | Board and and, obviously, if any of them have,      |
| 9   | you know, significant comments we will let          |
| LO  | everybody know.                                     |
| L1  | MEMBER KOTELCHUCK: It may be                        |
| L2  | appropriate somehow to incorporate well, no.        |
| L3  | The cover letter is the cover letter. It's done     |
| L 4 | so -  |
| L5  | CHAIR MELIUS: Yes.                                  |
| L6  | MEMBER KOTELCHUCK: I was just going                 |
| L7  | to say, you know, if there were ways of sneaking    |
| L8  | in that was unanimous decision would be nice. But   |
| L9  | truth is we have approved it; it is final.          |
| 20  | MEMBER MUNN: That letter is already                 |
| 21  | perfect so -  |
| 22  | CHAIR MELIUS: Yes. Let's not -                      |
| 23  | MR. KATZ: Right. Right. It really                   |

| 2 3 | Board Work Session, August Public Comments,<br>Correspondence |
|-----|---|
| 4   | CHAIR MELIUS: mess it up. Okay.                               |
| 5   | Good. So now we have well, we are super-                      |
| 6   | efficient today here a work session which was                 |
| 7   | to last an hour which one? Yes, I know.                       |
| 8   | Public comments I am getting those                            |
| 9   | out here. I have 38 public comments from the last             |
| 10  | meetings and or meeting, I should say, and do                 |
| 11  | that. First one was a correspondence from the                 |
| 12  | Blockson petitioners that was read into the record            |
| 13  | by Ted at the meeting.  |
| 14  | It was considered overtime hour issues                        |
| 15  | and were those that and I think Jim Neton                     |
| 16  | responded and indicated it was that was a Site                |
| 17  | Profile issue and would be followed up on and do              |
| 18  | that.   |
| 19  | The second one regarding INL wanted to                        |
| 20  | expand the time frame for the SEC Class. It's                 |
| 21  | really not something I think we are sort of                   |
| 22  | ongoing we can but it depends on findings and it's            |
|     |   |

really a DCAS prerogative in terms of doing that

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1 it.

as we go through and -- but, again, with input from the Board in terms of what we find as we go along 2 3 -- do that. We had a number of additional comments 4 on that, one regarding the reactor list was from 5 6 one person at -- regarding INL, a number of other individual comments which have all been responded 7 to by -- one of them by -- I responded to, I think, 8 9 at the meeting and the others -- Tim Taulbee has followed up on to that. 10 11 Eight, nine and ten -questions 12 regarding Santa Susana and regarding an individual's particular record and so forth and 13 14 Lara Hughes has responded to those. So another set of comments regarding Santa Susana regarding an 15 16 issue regarding some of the Site Profile background 17 records and so forth and that, again, Lara has addressed those and I think they will be addressed 18 probably publically, at least not directly but 19 20 indirectly in terms of the presentation later. Numbers 15 through 17 were a set of 21 22 comments on the Savannah River Site from one person 23 involved in that petition and comments about some

of the revisions in the TBD and then some of our
evaluation approaches. Tim Taulbee has responded
to those. Another set of -- well, a single
question, number 18, regarding sort of multiple
issues with some other sites and so forth. LaVon's
followed up on that.

issues Number of on petitioner, person involved, five sets numbered 19 through 23 regarding Rocky Flats that have either been referred to the Work Group. One was a DOL issue and LaVon Rutherford, I believe, I guess he followed up on that one. That was the issue on residual periods on DOE sites, which are not included in the legislation. So we don't do those. Another -- numbers 24 and 25 some issues regarding several sites, one of which was a person had not heard back regarding an SEC petition in the early days.

So I think that's, again, Josh and LaVon have followed up on that. Numbers 26 through 28 regarding Lawrence Livermore and Lawrence Berkeley and, again, those -- LaVon has responded to that. There was questions about the petitions at

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| 1  | different sites. Further comments on Savannah       |
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| 2  | River from petitioner that's number 29, and Tim     |
| 3  | has responded to that. Some questions on Pinellas   |
| 4  | again, Josh Kinman responded on that to that.       |
| 5  | Another person, number 31, regarding Nevada Test    |
| 6  | Site and the NIOSH DCAS project officer Mark Rolfes |
| 7  | has responded on that one. Another Pinellas, Pete   |
| 8  | Darnell has responded to that and I believe that    |
| 9  | was has that been sent out, Pete's it was in        |
| LO | our package. I just didn't quite, wasn't quite      |
| L1 | have a heading on it so I couldn't quite tell what  |
| L2 | had happened to it, okay, and do that.              |
| L3 | Again, a letter from Rocky Flats                    |
| L4 | petitioner urging extension and so forth.           |
| L5 | Referred to LaVon Rutherford. And then last but     |
| L6 | not least, some questions on I think there is       |
| L7 | five comments on General Steel Industries and       |
| L8 | Dave Allen, the DCAS project officer on that has    |
| L9 | responded on those as he has on many others about   |
| 20 | that site. So that so yes?                          |
| 21 | MEMBER BEACH: Question. Regarding                   |
| 22 | the one that we talked about that Pete Darnell sent |
| 23 | out. how what's the response on that? I mean.       |

| 1  | did that go to the petitioner? Is it going to be   |
|----|--|
| 2  | read into the record? It's just an unusual way to  |
| 3  | have correspondence on the public comments. So I   |
| 4  | was curious the process.                           |
| 5  | MR. KATZ: I can't answer that. I                   |
| 6  | don't know.  |
| 7  | MEMBER BEACH: Okay. I just didn't                  |
| 8  | know. It was unusual.                              |
| 9  | CHAIR MELIUS: Stu or anybody? I                    |
| 10 | didn't quite understand the context for that       |
| 11 | either.  |
| 12 | MR. HINNEFELD: Off the top of my head              |
| 13 | I don't remember it. But Ted, do you have one that |
| 14 | I can look at?                                     |
| 15 | MEMBER BEACH: I have one pulled up                 |
| 16 | here. Actually, I have a hard copy, too.           |
| 17 | CHAIR MELIUS: I would say we would not             |
| 18 | read that into the record because what we are      |
| 19 | addressing is, have these comments been responded  |
| 20 | to and the general way they were responded that's  |
| 21 | included in what's been transmitted as part of the |
| 22 | transcript there. But how that what that           |
| 23 | correspondence is, is not just was sort of out     |

| 1  | of context and usually we don't get information.   |
|----|--|
| 2  | A lot of times most of times probably done by      |
| 3  | phone or by email, I think. Okay.                  |
| 4  | MEMBER ZIEMER: What who this one                   |
| 5  | was sent to. I mean, we got copies of it but was   |
| 6  | it intended to go to the commenter?                |
| 7  | MR. KATZ: I'm sorry, Paul. It was                  |
| 8  | really hard to understand you.                     |
| 9  | MEMBER ZIEMER: I just wondered who                 |
| 10 | this was directed to. It says public comment       |
| 11 | response and we got copies of it. But was it       |
| 12 | directed to the commenter?                         |
| 13 | MR. KATZ: Yes. I assume the response               |
| 14 | the commenter was responded to. The comments       |
| 15 | were extensive, which is why I think he made a     |
| 16 | separate document for that.                        |
| 17 | CHAIR MELIUS: Yes, it's comment                    |
| 18 | number 32 on what was distributed here and -       |
| 19 | Okay. Ted, do we have anything else we             |
| 20 | need to do? We have no correspondence.             |
| 21 | We have done our do we have any                    |
| 22 | no, we didn't have any leftover Work Groups. Okay. |
| 23 | MR. HINNEFELD: I can't provide any                 |

| 1  | insight today. I don't recall right now. As a        |
|----|--|
| 2  | general rule, we provide responsive information to   |
| 3  | comments made at the meeting for, you know, back     |
| 4  | to the Board. But it's not normal we don't           |
| 5  | normally then correspond with the commenters. So     |
| 6  | I don't know that we did this in this case or not.   |
| 7  | CHAIR MELIUS: Okay. Yes, if you                      |
| 8  | could just follow up. I don't think it's a major     |
| 9  | issue with that, nor is it, I think, inappropriate   |
| 10 | as a way of if there is extensive comments it's      |
| 11 | easier to sometimes easier just to write out         |
| 12 | answers to them and do that. Okay. So I think we     |
| 13 | will then break until 4:30.                          |
| 14 | (Whereupon, the above-entitled matter                |
| 15 | went off the record at 2:59 p.m. and resumed at 4:31 |
| 16 | p.m.)  |
| 17 | CHAIR MELIUS: Okay. If everyone can                  |
| 18 | get seated, we will get started. So we are going     |
| 19 | to start with a presentation on LANL from LaVor      |
| 20 | Rutherford and then we will hear comments from the   |
| 21 | petitioner about the so an update from him and       |
| 22 | then once that is whatever discussion among the      |
| 23 | Board and so forth we will then start the public     |

| 1  | comment period. So before we do that we will do     |
|----|---|
| 2  | a little announcement about the how that works      |
| 3  | and so forth.                                       |
| 4  | MR. KATZ: Right. Just a reminder,                   |
| 5  | there is some new faces here. But if you want to    |
| 6  | comment during the public comment period there is   |
| 7  | a sign-in book outside with the lady sitting        |
| 8  | outside at the desk. So please do sign in. It's     |
| 9  | helpful. Thanks.                                    |
| LO | CHAIR MELIUS: But it's not required                 |
| L1 | that you sign in. So if you decide based on what    |
| L2 | you've heard or haven't heard that you want to make |
| L3 | comments later you'd be allowed to also. So do      |
| L4 | that. And so LaVon, go on.                          |
| L5 | Los Alamos National Laboratory SEC Petition Update  |
| L6 | MR. RUTHERFORD: Alright. I am LaVon                 |
| L7 | Rutherford. I am going to give the update on our    |
| L8 | work with SEC 109 for the Los Alamos National Lab.  |
| L9 | A little background this petition                   |
| 20 | was received back in April of 2008. It qualified    |
| 21 | for evaluation in May of 2008. We initially         |
| 22 | evaluated all support workers from January 1, '76   |

through December 31 of 2005. 1 We issued Rev 0 of our report in January 2 3 1 of 2009 and Rev 1 in August of 2012. That Rev 1 report actually recommended a Class from January 4 1, 1976 through December 31 of 1995. 5 The Board with 6 concurred 011rrecommendation and the Secretary moved the Class forward. 7 8 Okay. Our feasibility that we identified for that Class was unmonitored intakes 9 of exotic radionuclides, alpha emitters, fission 10 products, activation products and special tritium 11 12 compounds. We set an end date of December 31st, 13 14 1995 for the Class based on the presumption that 15 LANL would be in full compliance with 10 CFR 835. 16 We committed to evaluate the post-1995 issues, 17 though. So 10 CFR 835 requires internal dosimetry 18 for radiological workers who programs 19 typical conditions are likely to receive 20 committed effective dose equivalent of .1 rem per 21 year or more from all occupational radionuclide 22 intakes in a year. So all intakes in a year .1 rem

So if they met this requirement

or 100 millirem.

and the individual did not have internal dosimetry 1 we could expect that that individual did not 2 3 receive more than .1 rem CEDE -- again, assuming compliance. 4 So since the ER -- since Rev. 1 of the 5 6 Evaluation Report we received more information, and procedures about the post-1995 7 documents period on exotic radionuclides. What we found is 8 work with these radionuclides after 1995 has been 9 They are corresponding therefore and 10 consistently there is corresponding few bioassay 11 12 data. Back in November of last year NIOSH, 13 14 SC&A and ORAU, our subcontractor, went to LANL. We met with the LANL health physics team including 15 16 managers, dosimetrists and fuel personnel. 17 with them to get a better understanding how they 18 were complying with 10 CFR 835. Not only complying now but complying back then. 19 20 From that -- during that trip 21 captured documents including radiation 22 permits, respirator use, air sampling, radiation 23 checklists, surveys,  $_{
m HP}$ routine monitoring

instructions and external exposure data, the idea 1 being collect as much of this information and kind 2 3 of, you know, build a story from it. We also, during that visit, we got 4 information on the special tritium compounds and 5 their site-specific radiation protection program 6 in compliance with 10 CFR 835 and their dosimetry 7 matrices program, which is a program kind of set 8 9 up to identify when dosimetry would be required for specific jobs. 10 So after we -- it took some period of 11 12 time to get a lot of this information. As well, we have also been looking at -- in the spring we 13 14 began considering how we were going to, you know, 15 basically reconstruct doses for the unmonitored 16 workers during this era. If you think about it, 17

you know, previously we have always used a coworker model for unmonitored workers where we found it appropriate. In this area -- era, if people were not exceeding 100 millirem, a coworker model would not be necessary. But we still had 100 millirem threshold so we have been looking at that.

LANL looked at -- LANL operated by a 40

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DAC hour per year limit, which equates to their 100 millirem CEDE and so we have been looking at how they are complying or how they are meeting that 40 DAC hour limit.

So in doing that, we bounced around on how we were going to do it. Most recently we decided that we would review -- we have always been reviewing assessments, reports and things such like that, identified findings, responses and corrective actions but we wanted to look more at this -- the noncompliance tracking system which actually identifies noncompliances with 10 CFR 835 as well as 10 CFR 830 and others. But we looked specifically at 10 CFR 835 violations. We looked at the site response in the corrective actions and we are also going to review the current reporting system as soon as we get access to that.

I think Stu mentioned that earlier we are trying to -- working on getting access. In fact, that is our last item on this list to get access to. But when we are reviewing these we are looking at -- do the findings identify unmonitored exposures that may prevent reconstructing

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exposures to a defined Class of workers or do the 1 findings identify a programmatic flaw that would 2 suggest unmonitored workers could have received 3 exposures in excess of 40 DAC hours per year. 4 think of 5 Ιf you that from the 6 programmatic flaw of the DR perspective, in that case a coworker model would -- I mean, that would 7 be like under your old requirement such that a 8 9 coworker model would be required. So where we are, we have reviewed the 10 available assessments on the different reports, 11 12 however, and have gotten access to the we 13 noncompliance tracking system and we have 14 downloaded a number of the reports for LANL and we 15 are putting those in our Site Research Database. 16 We are working with DOE to get access to the 17 occurrence reporting process. After we have reviewed all the assessments and report. 18 The addendum can be completed. 19 20 long pole in the tent is the 21 occurrence reporting process. We have every -- we 22 have reviewed everything else up to this date. 23 current schedule has the addendum being completed

| 1  | by February of next year. And that's our current     |
|----|--|
| 2  | status.  |
| 3  | CHAIR MELIUS: Okay. Thank you very                   |
| 4  | much, LaVon. Board Members have questions?           |
| 5  | Okay. I have a related question, I believe. Have     |
| 6  | we in the past on LANL identified other Site Profile |
| 7  | issues going back in time?                           |
| 8  | MR. RUTHERFORD: Certainly. Yes.                      |
| 9  | CHAIR MELIUS: And where are we in                    |
| LO | terms of addressing those?                           |
| L1 | MR. RUTHERFORD: I honestly we have                   |
| L2 | been focusing on the SEC issues and I could not give |
| L3 | you a good position on where we are with the Site    |
| L4 | Profile issues.                                      |
| L5 | CHAIR MELIUS: Okay. Because I think                  |
| L6 | we need to start thinking about those. I mean,       |
| L7 | much of the site and time period of site is covered  |
| L8 | by SEC. But that still leaves a number of people     |
| L9 | with non-SEC cancers that would require dose         |
| 20 | reconstruction being done and where Site Profile     |
| 21 | issues are, you know, going to be could be           |
| 22 | important for them and so forth.                     |
| 2  | And you know we have now done enough                 |

| 1   | on this site. I guess maybe Hanford's somewhat      |
|-----|---|
| 2   | close to this, not quite, where one, this is a sort |
| 3   | of a new you know, new challenge to look at.        |
| 4   | MR. RUTHERFORD: Yes.                                |
| 5   | CHAIR MELIUS: Post '95 period. It's                 |
| 6   | not been done before but it's also leaves a long    |
| 7   | time period with Site Profile issues that we ought  |
| 8   | to be thinking about how do we move forward on      |
| 9   | those, particularly ones that could have            |
| LO  | significant impact on exposures for people that are |
| L1  | working at the site with non-SEC cancers.           |
| L2  | MR. RUTHERFORD: Okay. Yes, we can                   |
| L3  | start working on that at least                      |
| L4  | CHAIR MELIUS: Yes, that would be                    |
| L5  | something for the Work Group to think about and -   |
| L6  | MEMBER BEACH: Jim, I think that's                   |
| L7  | Josie Beach. Anyway, I think that's a good idea.    |
| L8  | I know the Work Group will get meet when the        |
| L9  | addendum comes out and I don't recall if we had a   |
| 20  | Site Profile Matrix at all. I'd have to ask SC&A    |
| 21  | on that also. That's a good point.                  |
| 22  | MR. RUTHERFORD: Well, I think Mark                  |
| 2.3 | Griffon was the lead at that time. So it's been     |

| 1  | a long time ago.                                     |
|----|--|
| 2  | MEMBER BEACH: Yes, it was.                           |
| 3  | MR. RUTHERFORD: You know, another                    |
| 4  | item I wanted to point out before I forget is, as    |
| 5  | Dr. Melius mentioned, this post-'95 period, this     |
| 6  | is this is really our first 10 CFR 835 era           |
| 7  | assessment and there is going to be others to follow |
| 8  | quickly thereafter, Sandia National Lab, Lawrence    |
| 9  | Livermore National Lab, and not all sites handled    |
| LO | it the same way based on it. So, you know, I think   |
| L1 | it'll be an interesting period.                      |
| L2 | CHAIR MELIUS: Any other Board member                 |
| L3 | comments or questions? Board Members on the          |
| L4 | phone, any questions? Okay.                          |
| L5 | MEMBER ZIEMER: No questions here.                    |
| L6 | CHAIR MELIUS: Okay. Thank you.                       |
| L7 | Andrew. And do you want to identify yourself, and    |
| L8 | as usual, and go for it.                             |
| L9 | MR. EVASKOVICH: I am Andrew                          |
| 20 | Evaskovich. I am the petitioner for SEC 109. I       |
| 21 | just got the slides about a day or two ago or found  |
| 22 | them online. So I tried to come up with a quick      |
| 23 | response. I found some abstracts that I am going     |

to read and there is a section of an article that

I found that I am going to refer to as well plus

some stuff that was already in the petition.

This is from 1997. Department of Energy appraisers found continuous air monitors at Department of Energy plutonium facilities alarmed less than 30 percent of the time when integrated room plutonium air concentrations exceeded 500 DAC hours.

Without other interventions this alarm percentage is consistent with the possibility that workers could be exposed to hiqh airborne concentrations without continuous air monitor alarms. Past. research has shown t.hat. the placement of continuous air monitors is a critical component in rapid and reliable detection of airborne releases. Αt Los Alamos National Laboratory and many other Department of Energy facilities, continuous air monitors have been primarily placed at ventilation exhaust points. The purpose of this study was to evaluate and compare the effectiveness of exhaust-register placement of workplace continuous air monitors

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with other sampling locations. All dispersed oil aerosols were released from multiple locations at two plutonium laboratories and Los Alamos National Laboratory.

An array of laser particle counters positioned in the room measured the time-resolved aerosol dispersion. Results show alternative displacement of air samplers generally resulted in aerosol detection that was faster, often more sensitive and equally reliable compared with samplers at exhaust registers. And from a similar document that was from 1994, a different author, false alarm rates, i.e., alarms occurring in the absence of elevated air levels, were also reviewed and found to be as high as 95 percent for some of the facilities surveyed. Though there are few actual uptakes, these results raise questions concerning generally accepted practices for worker protection and the value of active monitoring units.

And just the information we have discussed as far as the petition that was approved up to '95, there are potential inadequacies in the

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assessment of neptunium airborne contamination 1 instruments designed and calibrated for 2 3 plutonium. The lack of comprehensive hazards analysis has resulted in the lack of appropriate 4 documented technical basis for addressing these 5 6 issues. And this is an article I just found this 7 8 morning, in fact, dealing with spallation. 9 Ensuring the safetv οf workers at accelerator-driven nuclear facilities is 10 paramount before these systems can be deployed for 11 12 nuclear transmutation or any other mission. 13 Spallation neutron sources produce as many as 660 14 rare radionuclides in either the target or the 15 blanket during the spallation process. No data 16 exists for many of these radionuclides in the 17 radiation protection quidelines current standards. This research program seeks to address 18 this problem through generating internal 19 20 external dose coefficients for these new isotopes. 21 So, and they do spallation work at the 22 accelerator at the LANS facility. So that's why

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mentioned that issue.

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the

And as far as

| 1  | derivative air concentrations, how it has been      |
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| 2  | addressed, I think that's what the documentation    |
| 3  | will show.  |
| 4  | My position is I don't think it's                   |
| 5  | sufficient and I'll probably find more information  |
| 6  | supporting that. I know there were reports in       |
| 7  | later years where they've had some findings         |
| 8  | concerning monitoring. That's all I have to say.    |
| 9  | Thank you.  |
| LO | CHAIR MELIUS: Thank you, Andrew. No,                |
| L1 | I am sure as we are now identifying new issues      |
| L2 | I don't know exactly what to call them there will   |
| L3 | be a lot of questions and questions that will come  |
| L4 | up with some input and information from people that |
| L5 | have worked at the facilities and so forth will be  |
| L6 | useful and helpful to try to resolve some of those  |
| L7 | issues. So that's good. Okay. So we will start      |
| L8 | the public comment period but first Ted will do an  |
| L9 | introduction.                                       |
| 20 | Public Comment                                      |
| 21 | MR. KATZ: Yes. Yes, just the                        |
| 22 | preliminaries. For those of you who aren't          |

1 familiar, all of our Board meetings are transcribed and the written record of the meeting is a verbatim 2 3 record. So everything's exactly as it's said and then that's published on the NIOSH website. 4 So for the public comment session, 5 6 everything you tell the Board is -- gets published 7 and put out there for everyone else to read. 8 just keep that in mind in terms of anything very 9 personal to you that you might say and might not want to be out there. But whatever you say about 10 other people -- not about yourself but about other 11 12 people, we will do redactions to the record for them -- for what you say about them to protect their 13 privacy since they are not speaking for themselves. 14 So I just want to let you know that's 15 16 how that works. There is a lot more verbiage on the website for how that works. But there is no 17 real need to go there. That's the bottom line, and 18 19 that's it. 20 CHAIR MELIUS: Okay. We will get 21 We are going to jump around a little bit 22 here so it won't be in the order that you signed up in and then as I said if other people wish to 23

| 1  | make comments we will make provide time and there   |
|----|---|
| 2  | may be people on the phone that are calling in that |
| 3  | will want to make comments. We usually do them      |
| 4  | last, and we have one person who has to get back    |
| 5  | to work. So they get priority.                      |
| 6  | So and, again, I will apologize up front            |
| 7  | if I mispronounce or correct names and you're up.   |
| 8  | Go ahead. Yes. Eloy Giron.                          |
| 9  | MR. GIRON: Chairman, Members of the                 |
| 10 | Board, my name is Elloyd Giron. Thank you for your  |
| 11 | time right now. I work at Sandia National Labs.     |
| 12 | I am a security police officer and I am going to    |
| 13 | use an acronym, SPOs, later on. So I have a real    |
| 14 | quick statement right here.                         |
| 15 | CHAIR MELIUS: Okay.                                 |
| 16 | MR. GIRON: What I am here right now is              |
| 17 | just to ask for an update on our cohort that we     |
| 18 | that we petitioned for. I petitioned for it in      |
| 19 | 2011 and it was granted up until 1994.              |
| 20 | Since then, Dr. Glover has come and met             |
| 21 | with us and we have gone into classified areas and  |
| 22 | discussed other things and I have a real quick      |
| 23 | statement here. None of this is classified. Let     |

| 1  | me put my readers on here.                         |
|----|--|
| 2  | CHAIR MELIUS: Okay. Sure.                          |
| 3  | MR. GIRON: Okay. The reason we are                 |
| 4  | asking for this update is, and this is some of the |
| 5  | stuff that we spoke with Dr. Glover with, was the  |
| 6  | Sandia SPOs, the security police officers, were    |
| 7  | treated different than other Sandians.             |
| 8  | The security posture and protection of             |
| 9  | SNM special nuclear material was given more        |
| 10 | priority than the safety conditions of our         |
| 11 | workplace. SPOs routinely patrolled in all areas   |
| 12 | of Sandia National Labs. These areas contain many  |
| 13 | hazards to include SNM, radioactive material,      |
| 14 | radioactive waste, radiological producing          |
| 15 | machines, hazardous chemicals, biological          |
| 16 | hazards.   |
| 17 | SPOs manned many temporary SNM projects            |
| 18 | to include Tonopah Test Range, 6580 hot cell, new  |
| 19 | cable site, old cable site, 6505, 6636. Due to the |
| 20 | temporary nature of these projects there are no    |
| 21 | built-in safety precautions and all this is none   |
| 22 | of this is classified. This was in the petition.   |
| 23 | This was discussed with Dr. Glover.                |

The SPOs manned permanent 24/7 posts 1 and radiological areas of Buildings 6597 and 6590 2 3 hard pool. The areas of disposement were not designated for a safe environment for them. 4 They were just incorporated into the current testing 5 facilities. 6 SPOs could not leave these areas to 7 8 either eat and use the restroom there. 9 Radiological monitors routinely went off in these When these alarms went off, the SPOs did 10 11 not evacuate. 12 These alarms often went off during nonoperational hours. During these hours, there 13 14 were no rad techs on duty to assess these alarms. 15 hard pool, testing personnel and reactor 16 operators evacuated the areas during the shots. 17 SPOs remained in place. 18 SPOs were only given a TLD to wear with 19 no procedures in place to make sure the TLD was 20 worn. SPOs were never given any internal 21 monitoring. Operating personnel for these areas 22 were given internal monitoring and other external 23 monitoring devices to wear for the operating

| Т  | personner.  |
|----|---|
| 2  | Right now I am asking for a status on               |
| 3  | this and if there is anything else that we can do   |
| 4  | to help out to get this going. I am about to        |
| 5  | I think Dr. Glover's gone.                          |
| 6  | MR. RUTHERFORD: Yes, Dr. Glover is                  |
| 7  | gone.   |
| 8  | MR. GIRON: And you're the new guy.                  |
| 9  | MR. RUTHERFORD: No, I am not the new                |
| 10 | guy. Actually, Chuck Nelson, another health         |
| 11 | physicist, will be the lead for is the lead for     |
| 12 | that. We are actually planning to issue our         |
| 13 | addendum on Sandia to close out or to address those |
| 14 | final years of that petition in June of next year.  |
| 15 | So it's going to follow the Los Alamos petition     |
| 16 | evaluation that's in February. It will be issued    |
| 17 | in June of next year.                               |
| 18 | MR. GIRON: Okay. If there is any help               |
| 19 | that we can be please get a hold of us.             |
| 20 | MR. RUTHERFORD: I will make sure that               |
| 21 | I pass that information along. Yes, keep in touch.  |
| 22 | MR. GIRON: Chairman                                 |
| 23 | MR. RUTHERFORD: And we actually                     |

| 1   | started one of our first questions this morning      |
|-----|--|
| 2   | that the Board had was what's happening with         |
| 3   | Sandia. So we were been concerned also so and        |
| 4   | we will keep it moving.                              |
| 5   | MR. GIRON: Okay. Chairman, Members                   |
| 6   | of the Board, thank you for your time.               |
| 7   | MR. RUTHERFORD: Okay. Thank you.                     |
| 8   | CHAIR MELIUS: Is there anybody else                  |
| 9   | here that wishes to speak to issues related to LANL? |
| LO  | (No response.)                                       |
| 11  | Okay. Then I will start going down the               |
| L2  | list in the order that the people signed up.         |
| L3  | Actually, I have one more person signed up. Chad     |
| L4  | Walde. Okay. Go ahead. Yes.                          |
| L5  | MR. CHAD: Good afternoon. Chairman,                  |
| L6  | Board Members, I appreciate your time in listening   |
| L7  | to me. I am a common man, maintenance, execution     |
| L8  | in Los Alamos. I was hired on there in 1999, fresh   |
| L9  | out of the Navy, and worked my way up into           |
| 20  | supervising craft and what not throughout the        |
| 21  | laboratory.  |
| 22  | I don't know what else I could add. I                |
| ) 3 | don't know what information you've already had or    |

what have you but when it comes to Los Alamos and 1 the air monitors, what not, RCTs, yes, they made tremendous strides for protecting the employees. But there is quite a gap there regarding how people were monitored, what was reported back to the employees. The rad protection program has gotten a lot more robust but it hasn't -- in my 17 years wasn't always where it is now.

> I've -- from 2011 to 2014 I was the work execution manager for the rad liquid waste facility when we had, you know, monitored RCTs and everybody else, CAM alarms, respirators issued, what not, working in the plant. There were several times that the alarms would go off but nobody knew why or what have you. There was also times where employees as TLDs would start taking hits and nobody can explain why. The evaporator was found to be contaminated at one point in time during the maintenance inspection and nobody knew -- so but nothing had alarmed. Nothing told anybody. there is still more reason to dig and look.

> Another thing was during Cerro Grande I was assigned to the fire protection maintenance

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crews as superintendent and sent employees out to

-- after the fire was released or after the fire

was contained we were allowed to access the site

again.

The fire alarm systems throughout the hill that were in alarm, either powered down or contaminated with smoke. Contaminated meaning — I am sorry — don't know if they were contaminated or not. I just know that they'd taken in the smoke and set off the alarms and I was tasked with sending crews out into the field, a lot of times going with them, and either cleaning the detectors and cleaning them and nobody still knows what was put in the air that day or those two weeks.

None of us had -- not -- I shouldn't say none, excuse me -- not everyone was issued a TLD.

Not everyone was monitored. Not everybody -- some of us were outside the categories that were monitored or found to be in a working Class that needed to be monitored even though we routinely went throughout the laboratory and the -- we just -- I guess what I am here to say is, you know, I'd really like you to -- I urge you to look at --

looking at the people who worked there after 1995 1 because it still wasn't locked tight and solid that 2 3 we got everybody covered. I myself am diagnosed with cancer. In 2014, I was diagnosed with stage 4 four glioblastoma. When I filed my documentation 5 6 I was told, yes, we gave you so much radiation but in order to -- based on our models for the central 7 8 nervous system you would need five rem for us to 9 be able to have more likely than not. Well, I asked them well, what model did you use. 10 They said a thyroid. And I am not here to plead my case or poor 11 pitiful me or anything like that. 12 I am sorry if that's what I'm coming off. 13 But there is a lot of work to still be 14 done. There is people being denied. 15 To me, I'll 16 be honest, I could care less about the money. 17 am more worried about the insurance part of it, taking care of what not. But, you know, so to me 18 a brain is different than a thyroid, a more 19 20 sensitive organ. That's why it was protected and 21 built that way, and I got three rem documented. 22 There is periods of work there that we don't have 23 any documentation on. So it's -- it is personal.

| 1  | So and I, again, being supervisor for that fire     |
|----|---|
| 2  | protection crew I won't say any names but I do know |
| 3  | several other employees that hired in and worked    |
| 4  | those periods, worked nights, worked what have you, |
| 5  | weren't always monitored and have been developing   |
| 6  | cancer as well and they don't fall under extended   |
| 7  | cohort and if there is some trick, some way around, |
| 8  | it's not quite enough or what have you. What we     |
| 9  | are doing here is not 100 percent, I guess, is why  |
| LO | I am asking you to -                                |
| L1 | CHAIR MELIUS: No. Thank you, and it                 |
| L2 | would be helpful if you can give your name and at   |
| L3 | least contact information to LaVon.                 |
| L4 | MR. CHAD: I do apologize for that.                  |
| L5 | CHAIR MELIUS: Because we are                        |
| L6 | evaluating this. We will follow up and may want     |
| L7 | to interview you and, you know, get more            |
| L8 | information and you can answer questions that,      |
| L9 | obviously, from a distance we can't. So             |
| 20 | MR. CHAD: Yes, sir. I apologize.                    |
| 21 | I'll catch you                                      |
| 22 | CHAIR MELIUS: You don't need to                     |
| 23 | apologize.  |

| 1  | MR. CHAD: You asked us to start out                 |
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| 2  | with that so  |
| 3  | CHAIR MELIUS: Yes. That's fine.                     |
| 4  | But if you want to talk to LaVon and just catch him |
| 5  | on the way out and that or                          |
| 6  | MR. CHAD: I will, sir.                              |
| 7  | CHAIR MELIUS: Okay. Thank you.                      |
| 8  | MR. CHAD: Thank you.                                |
| 9  | CHAIR MELIUS: Again, anybody else                   |
| 10 | from LANL that wishes to speak? Okay. Okay.         |
| 11 | I'll start at the top of the list. Terrie Barrie.   |
| 12 | MS. BARRIE: Good evening, Dr. Melius                |
| 13 | and Members of the Board. It's a pleasure to be     |
| 14 | back in front of you again. It's been a long time.  |
| 15 | My name is Terrie Barrie and I am a                 |
| 16 | founding member of the Alliance of Nuclear Worker   |
| 17 | Advocacy Groups and co-petitioner for the Rocky     |
| 18 | Flats SEC petition.                                 |
| 19 | Thank you for this time. About three                |
| 20 | months ago, the United Steelworkers Local 8031      |
| 21 | generously donated hard copy documents including    |
| 22 | safety concerns from the Rocky Flats site to ANWAG. |
| 23 | T realize that NIOSH and SC&A reviewed some of the  |

concerns or at least the database back in 2007 but this donation is the first time the petitioner, [identifying information redacted] and I, along with other site experts had a chance to review these records. Of the almost 5,000 safety concerns in DOE's possession, NIOSH and SC&A determined that only about 40 or so could possibly affect NIOSH's ability to reconstruct dose for Rocky Flats.

This limited amount of safety concerns may have stunted the complete review of the safety concerns. According to SC&A's main report in 2007, and I quote, a number of safety concerns relate to a lack of quality control in the internal and external monitoring programs. These concerns collectively reinforce issues raised in the petition regarding data quality, end quote.

Our review found a lot more. The site-specific concerns -- the specific safety concern numbers and the related issues can be found in the attached spreadsheet and a copy of it is available online and it's a pretty long address and I'll give it to the transcriber if that's okay, but it's http://www.rockyflatsambushgrandjury.com,

| 1  | terriebarrieanwagpresentsrockyflatssafetyconcer     |
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| 2  | ns and I'll give this to the transcriber.           |
| 3  | We reviewed the safety concerns which               |
| 4  | were not included in the NIOSH SC&A list. Briefly,  |
| 5  | we identified falsification of plutonium waste on   |
| 6  | the run sheet, falsification of medical records and |
| 7  | falsification of RECA inspections.                  |
| 8  | We identified multiple problems with                |
| 9  | the health and safety labs from 1985 to 1999        |
| 10 | including this comment, quote, the HS&E laboratory  |
| 11 | has a major problem with contamination and efforts  |
| 12 | are underway to correct this situation, end quote.  |
| 13 | There was a possible criticality in                 |
| 14 | Building 774 in 1986. It was serious enough to      |
| 15 | have Rocky Flats, quote, obtain a nuclear           |
| 16 | criticality specialist from Albuquerque, end        |
| 17 | quote.  |
| 18 | I cross checked this incident with the              |
| 19 | Department of Energy Rocky Flats assessment of      |
| 20 | criticality safety report and that is not listed    |
| 21 | in that report. We also identified a strong         |
| 22 | indication that radioactivity materials and         |
| 23 | contaminated equipment were present in Building     |

460 at least through 1996. The vast majority of 1 these workers were not monitored for radiation 2. 3 since Building 460 was considered a cold building. Numerous concerns were filed for faulty 4 alarms, lack of qualified RCT coverage or even no 5 6 coverage at all, and instruments being incorrectly 7 calibrated. There were so many of these types of safety concerns that I stopped recording them on 8 9 a spreadsheet. But these concerns are directly related 10 to NIOSH's ability to reconstruct dose. 11 If an 12 alarm doesn't alarm, then the worker or the RCT will not know there was a release. If the area doesn't 13 14 have an RCT, the worker won't know if he's been exposed. 15 16 Ιf the RCT's instrument is not calibrated correctly, then it's unlikely that an 17 accurate assessment of contamination would be 18 19 recorded. In any of these situations it is quite 20 possible that the contaminated worker would not be 21 decontaminated or given the opportunity to provide 22 samples to see if there was an internal or external

These are issues that affect NIOSH's

deposition.

| 1  | ability to reconstruct dose. As I mentioned,       |
|----|--|
| 2  | NIOSH and SC&A did identify a limited number of    |
| 3  | safety concerns. Some were resolved in 2007.       |
| 4  | However, the SC&A report states, quote,            |
| 5  | NIOSH continues its investigation of two safety    |
| 6  | concerns involving lost or invalid bioassay        |
| 7  | results, number 90-169, and the inadequacy of the  |
| 8  | internal and external dosimetry program number,    |
| 9  | 92-048.  |
| LO | I have not been able to find if this               |
| L1 | investigation into these two safety concerns is    |
| L2 | completed. If they have not been resolved, NIOSH   |
| L3 | needs to complete this investigation and include   |
| L4 | the additional safety concerns the petitioners     |
| L5 | have now identified.                               |
| L6 | I would like to remind the Board of two            |
| L7 | outstanding issues. Metal tritides this issue      |
| L8 | was raised during the Rocky Flats March 17th, 2015 |
| L9 | Work Group meeting. NIOSH promised that they       |
| 20 | would look into it again but I have not seen where |
| 21 | that has been completed either.                    |
| 22 | I found safety concern number 94-158               |
| 23 | which alludes to the presence of tritides.         |

Earlier this year, I also supplied NIOSH with a 1 couple of documents which I feel supports the 2 3 possibility that tritides was present at Rocky I would like to remind the Board too that Flats. 4 you approved SEC status for General Atomics in 2014 5 6 in part because NIOSH determined that, quote, metal 7 tritides were present during the operational period with no indication of any analysis performed 8 9 to determine the type of tritide and that, without that knowledge, NIOSH admitted they cannot 10 reconstruct dose with sufficient accuracy. 11 12 The other instance where consistent on SEC petition affects Rocky Flats 13 decisions involves 14 reconstruction for dose neptunium One LANL SEC petition was approved 15 exposure. 16 because a petitioner provided a document which states that plutonium bioassay cannot be used to 17 reconstruct dose for neptunium exposure yet that 18 is exactly what NIOSH is doing for Rocky Flats 19 20 workers after 1983. How can this methodology be 21 okay for Rocky Flats but not for LANL? 22 Lastly, I am concerned about the legacy 23 of the weapons production being ignored. The

| 1  | workers employed from 1990 through the date of       |
|----|--|
| 2  | closure must not be forgotten. Many of the safety    |
| 3  | concerns we reviewed occurred during this time       |
| 4  | period, well after the 1989 raid by the FBI. The     |
| 5  | SEC should be extended to 2005 and I believe we have |
| 6  | ample we have provided ample evidence that           |
| 7  | supports this position.                              |
| 8  | Thank you for allowing me to present                 |
| 9  | these comments. I would also like to express my      |
| 10 | appreciation to the United Steelworkers and          |
| 11 | especially [identifying information redacted] of     |
| 12 | Local 8031 for donating these documents and to Cold  |
| 13 | War Patriots who generously provided the funds for   |
| 14 | this project. Thank you.                             |
| 15 | CHAIR MELIUS: Thank you, Terrie.                     |
| 16 | John Lipsky.   |
| 17 | MR. LIPSKY: Greetings to the                         |
| 18 | honorable Dr. Melius and Members of the Advisory     |
| 19 | Board. Hello, my name is John Lipsky. I was the      |
| 20 | lead FBI agent of the criminal investigation of      |
| 21 | Rocky Flats in June it actually started in 1987.     |
| 22 | The raid was in June of 1989 and Rockwell pled       |
| 23 | guilty to felonies and misdemeanors in 1992.         |

I was also a subject matter expert 1 witness in the Merilyn Cook v. 2 Dow Chemical, 3 Rockwell and Boeing civil trial regarding the adjacent property in 2005. That verdict ended up 4 going through the court system but last May there 5 was a settlement of \$375 million for the plaintiffs 6 who I testified for. 7 Ι legally 8 constrained from 9 disclosing protected government information and as a result of my previous employment in support of 10 those protections, I make the following comments 11 regarding publicly available information. 12 In March 1988, the U.S. Department of 13 14 Energy environmental safety and health reported its technical safety appraisal for Buildings 776 15 16 and 777. I am going to call it the 1988 TSA and there is a contract number of DE88016374 and its 17 findings. 18 19 The 1988 TSA was conducted an 20 appraisal -- some of us government employees called 21 it an audit -- by outside experts who reported 22 similar concerns by Rocky Flats nuclear workers. 23 The 1988 TSA documented four major problem areas,

| 1  | 85 specific findings, nine of which had to be       |
|----|---|
| 2  | promptly within two weeks remedied.                 |
| 3  | It is not surprising that a good share              |
| 4  | of the deficiencies assessing the safety of         |
| 5  | activities was a result of management breakdown.    |
| 6  | The pervasive inadequacies in radiological          |
| 7  | protection at Rocky Flats, fire protection and      |
| 8  | maintenance, are indicative of management           |
| 9  | inattention.  |
| LO | This is further evidenced by the                    |
| L1 | appraisal team's categorizing of 41 concerns as     |
| L2 | involving failure to comply with some aspect of DOE |
| L3 | mandatory requirements.                             |
| L4 | In regards to Ms. Terrie Barrie's                   |
| L5 | public statement that you just heard, the list of   |
| L6 | Rocky Flats safety concerns and the interest of     |
| L7 | extending the Rocky Flats SEC petition, please      |
| L8 | consider the following safety concerns.             |
| L9 | 1986-013 regarding receiving                        |
| 20 | dosimeters twice; 1986-115, molten salt crew high   |
| 21 | gamma radiation; 1988-121, barrels filled with hot  |
| 22 | materials next to work area ;1992-345, tritium      |
| 23 | detection alarm failure contact in Building 707;    |

1996-161, no requirement to submit nasal mouth 1 smears contaminated step-off pad; and 2000-025, 2 3 management interfering with medical decision in addition to the 1988 TSA. 4 Radiation protection of all nuclear 5 6 workers should be paramount at DOE facilities. The 1988 TSA was also concerned with a lack of 7 coordinated information 8 essential system 9 radiation records. Rocky Flats safety concern 94-064 and 94-065 dealing with cross-contamination 10 of air head filters in the analytical health 11 12 physics laboratory, also known as Building 123, among other radiological issues range from 1985 to 13 1996 and they still didn't fix it. 14 15 These safety concerns also refer to --16 inside the file itself refers to other safety 17 concerns, 1985-064, 90-051 and 90-212. It is not 18 claimant-favorable to ignore the documented 1988 TSA, previous TSAs with unresolved findings and the 19 20 safety concerns that were contemporaneously 21 documented issues regarding radiological 22 protection for Rocky Flats nuclear workers, and I 23 thank you for your time and attention.

1 CHAIR MELIUS: Thank you. Next person I have on the list, Donna Hand. 2 3 MS. HAND: Thank you very much for your time and listening. The Board Members have a 4 yellow packet that's there in front of them. 5 6 First, I would like to bring in to procedure number OCAS PR004, Pages 17 and 18, about the timeliness 7 policy and that if the director of OCAS may, which 8 is discretionary, determine that the records or 9 information requested is not provided in a timely 10 manner, it shall go ahead and issue a SEC. 11 12 Also at the bottom of that, it says that if the petition raised issues that have not been 13 14 fully addressed then the comprehensive timeliness is important and they are to address 15 16 those issues even if they said they could feasibly 17 do the dose reconstruction and do not delay the SEC petition waiting on the documents. 18 19 In the packet on the left-hand side you 20 have what they call occupational radiation 21 Whenever the 2010 petition was appealed exposure. 22 and asked for an administrative review, Lara Hughes 23 says what is REMS because I asked to review the DOE

REMS on the Pinellas plant. 1 Well, the is the radiation 2 REMS 3 exposure monitoring system that DOE has and in 1992 they had a report on Pinellas plant. Behind that 4 you will see emails going back and forth stating 5 6 that the Tiger Team report does satisfy the evidence for one of the criteria. 7 Later on, LaVon Rutherford also says in 8 9 the email, we have accepted SC&A issues to be in the HP report to go ahead and be qualified. 10 you also have the professional judgment report 11 12 showing that Donald Staplefield said we qualify. But yet, we did not qualify. 13 14 You had a new SEC petition recently also denied, denied based on there is no new evidence. 15 16 According to the regulation in the preamble, new evidence is only required if it's been put in the 17 federal registry. Our SEC has never been put in 18 the federal registry because 19 we never 20 requiring -- never qualified. Then you had in that 21 SEC petition information that was given to the 22 March Board at Tampa that also qualified that SEC

petition before they finally decided and they never

used any information that was also given to the Board.

Then you also have a new information report that was put into a journal regarding the flaking and gassing of the metal tritides and how they couldn't actually do a dose reconstruction for that. That's new evidence but yet that was ignored. You have metal tritides on the neutron tube and neutron generator that for ten -- over 20 years was done there at the Pinellas plant. It was sent to Sandia and then it was sent to Los Alamos -- part tube and generator they have an SEC for their neutron generator workers after 1995 -- after 1990.

So if one of the workers that worked at Pinellas plant now goes to Sandia and they work there still on the neutron generator, same thing they worked at the Pinellas plant, they get an SEC cancer, they qualify, but all those years at Pinellas they do not. So why couldn't you use the surrogate data from Pinellas plant for the neutron generators at Sandia? Sandia, Livermore in California also had neutron generators, metal

| 1  | tritides. You can't do their dose either.          |
|----|--|
| 2  | Recently a study came out in 2008 by               |
| 3  | Sandia saying that you can't use resuspensions on  |
| 4  | metal tritides. So all the you do not have the     |
| 5  | DAC. Also, there was recently a new report about   |
| 6  | the bioassays in metal tritides. You can't use     |
| 7  | tritium bioassay to determine the bioassay of a    |
| 8  | metal tritide because they are insoluble and       |
| 9  | soluble and there are other things. So your        |
| 10 | bioassays cannot be used. So these are some of the |
| 11 | issues.  |
| 12 | Finally, on the other side you have                |
| 13 | documentation of what I am saying. In my first     |
| 14 | petition for SEC they it was they said well,       |
| 15 | you have a hazardous substance list.               |
| 16 | That hazardous substance list listed 28            |
| 17 | radionuclides that have never been addressed. The  |
| 18 | Technical Basis Document listed several radio      |
| 19 | generating devices. Never been addressed. And      |
| 20 | on and on and on.                                  |
| 21 | Also it says the peer reviewed that the            |
| 22 | site exposure the site expert in their peer        |
| 23 | review, well, it's not supposed to be have any     |

task with it. Well, their site expert is the 1 person that does the dose reconstruction. 2 Thev 3 did the template and it's not even an HP and that all the dose reconstructions that have been --4 being done now are not even reviewed by HPs. 5 6 So we are having a big issue with this. The Board was tasked with a certain responsibility 7 8 and in Perez v. Mortgage Bankers Association the 9 U.S. Supreme Court ruled policy and procedures do not -- and legislative rules do not have the weight 10 of law, the force of law or the effect of law. 11 So 12 that statute and that regulation is what is effective, is what is mandatory and whenever in a 13 14 qualification stage they use -- you must use a 15 You must do this. Good quidance and the report. 16 Information Quality Act -- they cannot use that. 17 You cannot mandate. Only the law can mandate. Also, under the Information Quality Act if a 18 professional judgment is to be used that must be 19 20 backed by scientific and accepted 21 community-established knowledge. So in Ms. Lin's statement I think that 22 23 August the 10th was your second day -- also stated

| 1  | the job's duty of the Board is to help              |
|----|---|
| 2  | reconstructors do the dose reconstruction for the   |
| 3  | people that is not with the SEC and that is when    |
| 4  | you come up with a Site Profile or default values.  |
| 5  | Well, 10 CFR 835 has default values. Why can't we   |
| 6  | use those default values? Thank you.                |
| 7  | CHAIR MELIUS: Okay. Thank you.                      |
| 8  | Next Robert Amigo.                                  |
| 9  | MR. AMIGO: I don't have anything.                   |
| LO | CHAIR MELIUS: Okay. I want to make                  |
| L1 | sure, give you another chance. Thank you. Hugh      |
| L2 | Stephens. I thought I saw you here.                 |
| L3 | MR. STEPHENS: Hello. My name is Hugh                |
| L4 | Stephens. I am an attorney with Stephens &          |
| L5 | Stephens and we have been representing claimants    |
| L6 | since about 2010 and one thing I can report is that |
| L7 | we challenge dose reconstructions when we can find  |
| L8 | arguments against portions of those, and for a long |
| L9 | time the Department of Labor did not want to engage |
| 20 | in kind of a substantive assessment of those        |
| 21 | objections.   |
| 22 | And over the years they've changed                  |
| 23 | their procedure and our objections are now being    |

reviewed by, I believe, a health physicist at the 1 Department of Labor and then sent on very often to 2 3 NIOSH for response. And so I can report that the process has improved significantly with respect to 4 dose reconstructions and the claimants' ability to 5 6 make objections to those. We have struggled to understand the 7 8 dose reconstruction process and we don't claim to be experts in it but we can review the documents, the referenced documents and do our best to make 10 11 an argument. 12 We have had a couple overturned on circumstances 13 as simple as a dosimeter badge 14 exchange rate being biweekly instead of monthly and so that doubled the dose. So we are experts in 15 16 arithmetic primarily in that one. 17 And another one that was -- that we were 18 able to overturn related more to what we were doing today, which is improving the Site Profile and I 19 20 think there was a sense today about the work that's 21 done here and how important it is to prioritize and

very often we might spend a year or two trying to

get something right and if we were to think about

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so why don't we just skip it. 2 3 But that's the key. So when we are talking about a Site Profile and a change, it's very 4 difficult for us to go back and look and try and 5 6 figure out if it matters. And I don't know that 7 there is any kind of solution but certainly some of what we did today has a big impact on the dose 8 9 reconstruction process and some has no impact at And in a program where we are supposed -- the 10 claimant is supposed to be able on their own to 11 12 understand this whole process, the dose reconstruction process, and then review the 13 14 transcript of this meeting and understand that the new Site Profile is going to have an impact on their 15 16 claim and therefore they should request reopening. 17 These are difficult problems. claim to have a solution. But we will continue to 18 study these Site Profiles and try and understand 19 20 whether our claimants can get compensated. And so 21 there is that issue of prioritization. 22 The other thing that I think everyone struggles with and I think Donna Hand referenced 23

it for a second we'd say well, it doesn't matter

it in her presentation just now is when the SEC is 1 passed, now NIOSH can't do certain aspects of the 2 3 dose reconstruction and so we then have a new 4 assessment. 5 NIOSH has backed Their away. 6 expertise cannot be brought to bear. We have made a decision what they can do is not sufficiently 7 So from there we lead directly to a accurate. 8 determination that we know is false which is that 9 that person received no dose connected to that 10 aspect of the dose reconstruction. 11 12 I don't claim to have the answer to this But zero is what we know didn't happen 13 one either. 14 or at least we know that zero is probably not the right number. When we do missed dose for external 15 16 dose we know that if the limit of detection is .2, 17 then .1 is kind of a happy medium -- halfway between 18 zero and the limit of detection. That's a reasonable method of dealing 19 20 with the problem. But what we know is happening now 21 on all these claims where they don't qualify for 22 the SEC but there is an SEC, and then you have the

they

do

а

partial

Site

Profile

and

23

dose

| 1  | reconstruction, the number that has been chosen is  |
|----|---|
| 2  | the one we know is wrong and that's zero. That's    |
| 3  | all I have. Thank you.                              |
| 4  | CHAIR MELIUS: Thank you. If you come                |
| 5  | up with solutions, let us know. Do that, and I just |
| 6  | would like to add the one thing maybe LaVon was     |
| 7  | going to jump in on this.                           |
| 8  | MR. RUTHERFORD: (off mic)                           |
| 9  | CHAIR MELIUS: Okay. Well, one of the                |
| 10 | things I'll correct him and you can take him        |
| 11 | outside and deal with it. But is one issue with     |
| 12 | the Site Profiles is when a Site Profile is updated |
| 13 | any all of the claims that have been dose           |
| 14 | reconstructed under the old Site Profile are        |
| 15 | reviewed and if it does change the value in favor   |
| 16 | of the claimant then that is redone through DOL and |
| 17 | so forth. So that is built in.                      |
| 18 | I agree that it's a complicated program             |
| 19 | and it's very difficult for the claimant or their   |
| 20 | representative to weigh in on all the technical     |
| 21 | information and understand it and advocate for      |
| 22 | their client or whatever or for themselves. That    |
| 23 | cover it?   |

| 1  | MR. STEPHENS: You got it.                           |
|----|---|
| 2  | CHAIR MELIUS: See, you taught me                    |
| 3  | something. Yes. Thanks. Okay. Al Frowiss.           |
| 4  | MR. FROWISS: Senior.                                |
| 5  | CHAIR MELIUS: Senior. Okay.                         |
| 6  | MR. FROWISS: Mr. Chairman, thank you.               |
| 7  | This is Al, Senior, like I've got an (telephonic    |
| 8  | interference) Anyway, (telephonic interference)     |
| 9  | phone number [identifying information redacted].    |
| LO | My question today is about Lawrence                 |
| L1 | Livermore. I am an advocate nationally and I am     |
| L2 | the petitioner for the recently approved Lawrence   |
| L3 | Livermore lab for the 1964 to '89. My question is   |
| L4 | of the materials (telephonic interference) known    |
| L5 | as the MCA at the Lawrence Livermore (telephonic    |
| L6 | interference) official archives on the LLL job site |
| L7 | show that the MTA was built there starting in 1950, |
| L8 | which is the first year the original SEC. It was    |
| L9 | not under the state of California. It was           |
| 20 | (telephonic interference) with a company            |
| 21 | California (telephonic interference) which was a    |
| 22 | Standard Oil subsidiary.                            |
|    |   |

MR. KATZ: Can I -- Mr. Frowiss, can I

| 1   | just stop you one second? Are you using a speaker |
|-----|---|
| 2   | phone?  |
| 3   | MR. FROWISS: I didn't (telephonic                 |
| 4   | interference)                                     |
| 5   | MR. KATZ: Because your audio is very              |
| 6   | strange. It's very echoey and so on.              |
| 7   | MR. FROWISS: I expect (telephonic                 |
| 8   | interference) Anyway, I'll try to shorten it up.  |
| 9   | The MTA employees were California (telephonic     |
| 10  | interference) I am looking for                    |
| 11  | MR. KATZ: Mr. Frowiss, you're cutting             |
| 12  | in and out. I wonder if you can't maybe at least  |
| 13  | in follow-up send me your statement in writing so |
| 14  | that we can capture this correctly. Thanks.       |
| 15  | MR. FROWISS: I'll do that.                        |
| 16  | CHAIR MELIUS: And we will and there               |
| 17  | will be a response to it. I mean it's not         |
| 18  | MR. FROWISS: Thank you.                           |
| 19  | CHAIR MELIUS: Yes. Thank you.                     |
| 20  | Okay. Next person I have is Stephanie Carroll.    |
| 21  | MS. CARROLL: Hello. My name is                    |
| 22  | Stephanie Carroll. Thank you for allowing me to   |
| 2.3 | make a comment. It is green. Okav. I am           |

Stephanie Carroll. I am an authorized rep mainly for workers at Rocky Flats. I specialize in chronic beryllium disease and I've been helping on this SEC petition.

> Today I would like to present documents that I've had for a little while. That one on your desk, Dr. Melius, I have the documents I am referring to and then my statement for the Board Members and the statement includes documentation and quotes from [identifying information redacted] during a telephone interview by NIOSH subsequent to the CML White Paper.

The first document that I am going to It's an affidavit by refer to is dated 2/17/2012. [identifying information redacted]. He was [identifying information redacted]. The document identifies incidents and accidents between 1955 and 1988 that are not found in the Site Profile. It also lists chemicals used in Building 771 that personnel came into contact with and it includes neptunium. The affidavit reads, the attached document was compiled by [identifying information redacted] [identifying for information me

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redacted]. The document is one that identifies 1 accidents and incidents that happened between '55 2 3 and '88 in Building 71. The purpose was to educate the Building 771 personnel to the potential issues 4 either radiation 5 that caused exposure, 6 contamination or injury to the people in the building environment. 7 The second attachment is a list of major 8 9 chemicals used in Building 771 that personnel came into contact with, and if you look at the document, 10 you will see many incidents and I am just going to 11 12 talk about a couple of them. First one I find is in 1984 in Room 169, 13 a file cabinet. A file cabinet contained vials 14 holding PU of about 20 grams. I think it's grams 15 16 -- 20q. The vials we returned to the blood box in In Room 149 line 42, valve failure on Room 128. 17 tank 470 caused four-foot be 18 а area to contaminated. 19 Now, we don't -- I don't know where the 20 21 neptunium line was but if it had anything to do with 22 NIOSH has been saying that there were no 149. 23 incidents reported on the neptunium line.

would like people to go through these incidents to 1 see if they are related to the neptunium line in 2 3 771. And this is -- these are all incidents 4 after the SEC. So I am not going back. 5 The 6 incidents actually go back all the way to I think the '60s is when it started. 7 So in 1985 a tank containing nitric acid 8 9 overflowed. The operator left the room without turning off the transfer valve. Automatic shut-off 10 valve failed also. In '85, tank overflowing onto 11 12 floor while operator was out of room. '85 again, liquid was transferred from a safe pencil tank to 13 14 an unsafe annular tank. How long did that stay in that annular tank? 15 16 Ι also found something really 17 interesting because it has the date, the room that the incident happened in and then a description. 18 So 12/15/85 there was -- it's just blank what room 19 20 this happened in or where this happened. But it says 21 high urine samples sensitive report. So it looks 22 like another one in '86, contaminated employee --23 sensitive report. So it's something that they

| 1  | didn't want to talk about and I am very interested  |
|----|---|
| 2  | in, you know, why did the [identifying information  |
| 3  | redacted] why was he unable to document this.       |
| 4  | And then the second attachment is                   |
| 5  | interesting because it shows reagents and           |
| 6  | chemicals that were used in 771 that employees came |
| 7  | into contact with. This is what his affidavit       |
| 8  | his sworn affidavit reads. Production materials     |
| 9  | americium oxide, americium nitrate, ammonium        |
| LO | dichromate and neptunium. Plutonium isn't even      |
| L1 | mentioned so I find that interesting in this in     |
| L2 | this appendix.                                      |
| L3 | Okay. So that's the affidavit by                    |
| L4 | [identifying information redacted] and I've turned  |
| L5 | that in and I am hoping that it can be put on the   |
| L6 | site.   |
| L7 | Number two, I also turned in a document.            |
| L8 | It's dated $6/2/97$ from the USW and it was titled  |
| L9 | Location of Known Beryllium Areas Document.         |
| 20 | I have a question for NIOSH on this.                |
| 21 | Has inertial fusion in Building 881 been addressed  |
| 22 | by NIOSH? See the second page of the submitted      |
| 23 | Page 7 document. Inertial fusion in Rooms 143E,     |

143F, 199 and 283A. I want to know more about that. 1 And during the telephone conference 2 call with [identifying information redacted] I was 3 on the line and recorded his quotes. The Critical 4 Mass Lab White Paper, unfortunately, isn't going 5 to come out until next week and it would have been 6 great to have it out a week earlier and to be able 7 8 to comment on it more thoroughly today. 9 [identifying information redacted), was [identifying information redacted] is my client. 10 He's lived in the same house for 50 years. 11 12 Nobody's ever interviewed him, questioned him, talked to him. 13 14 He's been very easily accessible. I got a hold of him, which was great, and he loves 15 16 to teach me things. So anyway he had seen the first White Paper and he found a lot of problems with it. 17 And so I gave you -- when you do get the White Paper, 18 you're going to have quotes from this telephone 19 20 call on the issues that he was having with the first 21 White Paper. So I hope you keep that with you so 22 when you're reviewing it you can kind of see what [identifying information redacted] was thinking 23

He also wrote a book about the 1 about this. Critical Mass Lab, which I have a copy of, and he 2 detailed all the documents that he owned. 3 very meticulous and a fantastic site expert. Ι 4 wish he would have been used many years ago. 5 6 Anyway, some of the things that he said 7 -- any future White Paper must acknowledge that the desired radiation dose reconstruction at Rocky 8 9 Flats plant can never be known with any reasonable degree of accuracy. All assumed conditions are 10 likely to have been -- to have not been the case. 11 12 No one can ever know the radiation levels at the 13 Critical Mass Lab. Any -- these are all quotes 14 from him -- any attempt to define or bound 15 experimental power levels, neutron fluxes 16 gamma exposures as from fission fragments or the 17 unavoidable ingrowth of unknown amounts of neptunium 239 and plutonium 239 has no defensible 18 19 grounds. 20 He was arguing over the phone with them 21 about the facts. He did not -- there is no way that 22 you can get a power reading from the experiments 23 he was doing. He said this over and over and over

| 1  | again.   |
|----|--|
| 2  | Body counts were never done at Rocky               |
| 3  | Flats, only lung counts that measured              |
| 4  | gamma-emitting radionuclides absorbed in the lung. |
| 5  | The White Paper refers to body counts being done.  |
| 6  | They weren't done. It was lung counts.             |
| 7  | The CML used outside neutron sources of            |
| 8  | polonium, californium and cobalt 60. This is a     |
| 9  | quote that was a quote [identifying                |
| 10 | information redacted] does not know how they were  |
| 11 | disposed of. The sources were added and removed    |
| 12 | by increments until the neutrons began to grow     |
| 13 | exponentially above critical levels during his     |
| 14 | experiments.                                       |
| 15 | That's a quote from him. Flux rates                |
| 16 | were not important to the experiments. That was    |
| 17 | not what they were looking for. You cannot bound   |
| 18 | the neutron flux rate. We never knew the power     |
| 19 | level, never knew the number of neutrons that were |
| 20 | produced.  |
| 21 | There is no estimate of total fissions             |
| 22 | during these experiments. Many incidents           |
| 23 | happened in the lab and there were no special      |

any special bioassays. 2 3 We had plutonium solution qamma standards that were never documented anywhere. 4 Ι always turned off the criticality alarms during 5 6 testing of sources. The alarm sounds during a 7 prompt criticality and is meant to evacuate the 8 building and because we were doing experiments that 9 were meant to go critical we had to turn off the alarm to the building. NIOSH cannot reconstruct 10 radiation doses at the Critical Mass Lab or in 11 12 Building 886. Thank you very much. CHAIR MELIUS: 13 Thank you. Okay. 14 Anybody else in the room want to make public Now anybody on -- oh, I am sorry. 15 comments? Okay. 16 You have to come to the mic and identify yourself please. 17 18 MR. SALAZAR: Mark Salazar. I used to 19 work in LANL and I had cancer about three years ago. 20 I had oral cancer. 1988 to 1989 I worked in Los 21 Alamos as a contractor and then I started back in 22 about '90s until present. The problem I am having 23 and they keep on denying me because they cannot find

bioassays done. So he had some bioassays but never

| 1  | records of me working up there.                    |
|----|--|
| 2  | Again, I have submitted dosimetry badge            |
| 3  | issued to me in 1988 and it shows me there being   |
| 4  | there from 1988 until present when I was really    |
| 5  | there from '88, '89 roughly until '90, I think. So |
| 6  | it still showed me as an active employee up there  |
| 7  | and I was wondering what's the solution to having, |
| 8  | you know, dosimeters that don't match employment   |
| 9  | records. Because back then we used to get visitor  |
| LO | badges and I don't know if they are documented. I  |
| L1 | am not sure about that.                            |
| L2 | CHAIRMAN MELIUS: Okay. If you talk                 |
| L3 | to somebody from NIOSH we can get the individual   |
| L4 | information and then can follow up on I mean,      |
| L5 | we can't answer                                    |
| L6 | MR. SALAZAR: Okay.                                 |
| L7 | CHAIRMAN MELIUS: directly here and                 |
| L8 | I don't want that to LaVon Rutherford over there   |
| L9 | will talk to you.                                  |
| 20 | MR. SALAZAR: Alright. Thank you.                   |
| 21 | CHAIRMAN MELIUS: Thank you.                        |
| 22 | Appreciate it. Anybody else? Does anybody on the   |
| 23 | phone wish to make public comments? You're         |

| 1  | shaking your head, Terrie. I can't                   |
|----|--|
| 2  | MS. BARRIE: I am sorry. No. I have                   |
| 3  | a sidebar comment.                                   |
| 4  | CHAIRMAN MELIUS: Yes. Okay. I                        |
| 5  | couldn't tell if you knew of somebody that was going |
| 6  | to call in and -                                     |
| 7  | MS. BARRIE: No, I didn't.                            |
| 8  | Adjourn  |
| 9  | CHAIRMAN MELIUS: Okay. Hearing no                    |
| 10 | one, then I will close the public comment period     |
| 11 | and we will adjourn the meeting until tomorrow       |
| 12 | morning. Thank you, all.                             |
| 13 | (Whereupon, the above-entitled matter                |
|    |  |

went off the record at 5:42 p.m.)