

This transcript of the Advisory Board on Radiation and Worker Health, Board Meeting, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of the Advisory Board for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

UNITED STATES OF AMERICA

1

CENTERS FOR DISEASE CONTROL

+ + + + +

NATIONAL INSTITUTE FOR OCCUPATIONAL  
SAFETY AND HEALTH

+ + + + +

ADVISORY BOARD ON RADIATION AND  
WORKER HEALTH

+ + + + +

94th MEETING

+ + + + +

WEDNESDAY  
OCTOBER 16, 2013

+ + + + +

The meeting convened at 8:30 a.m., Mountain Daylight Time, in the DoubleTree by Hilton Hotel Denver - Westminster, 8773 Yates Drive, Westminster, Colorado, James M. Melius, Chairman, presiding.

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PRESENT :

2

JAMES M. MELIUS, Chairman  
HENRY ANDERSON, Member  
JOSIE BEACH, Member  
BRADLEY P. CLAWSON, Member  
R. WILLIAM FIELD, Member\*  
MARK GRIFFON, Member  
DAVID KOTELCHUCK, Member  
RICHARD LEMEN, Member  
JAMES E. LOCKEY, Member  
WANDA I. MUNN, Member  
JOHN W. POSTON, SR., Member  
DAVID B. RICHARDSON, Member\*  
GENEVIEVE S. ROESSLER, Member  
PHILLIP SCHOFIELD, Member  
LORETTA R. VALERIO, Member  
PAUL L. ZIEMER, Member  
TED KATZ, Designated Federal Official

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REGISTERED AND/OR PUBLIC COMMENT PARTICIPANTS

3

ADAMS, NANCY, NIOSH Contractor  
ADKINS, NILA  
BARRIE, TERRIE  
BOHAN, DENNIS  
BURGOS, ZAIDA, NIOSH  
CARROLL, STEPHANIE  
DOBROVOLNY, MICHELLE  
DONGARRA, TOMMY  
FOLKENROTH, MONTE  
FROWISS, AL\*  
GLOVER, SAM, DCAS  
HANSON, DOUG  
HARDEN, JERRY  
HARVILL, ROBERT  
HINNEFELD, STU, NIOSH  
JERISON, DEB  
KROL, JOHN  
MAKHIJANI, ARJUN, SC&A  
McKEEL, DAN\*  
MONTEZ, PETER  
NESHEIM, JANET  
NETON, JIM, DCAS  
PADILLA, JUDY  
REIS, LAURA SCHULTZ  
RUTHERFORD, LaVON, NIOSH  
SCHREINER, DAVID  
VLIEGER, FAYE  
VOWELLS, VERONICA  
WEAVER, JACK

\*Participating via telephone

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C-O-N-T-E-N-T-S		4
Call to Order and Welcome		9
James M. Melius Chairman		9, 11
Ted Katz Designated Federal Official		9
NIOSH Program Update Stuart Hinnefeld NIOSH		12
Questions and Answers		42
Sufficient Accuracy/Coworker Dose Modeling		54
James M. Melius Chairman and SEC Work Group Chair		54, 60, 75
James Neton NIOSH		57, 72
Questions and Comments		77
Sandia National Laboratory - Livermore (Livermore, CA), SEC Petition (83.14) (PV)		100
Sam Glover NIOSH		100
Petitioner (Not Participating)		
Questions and Comments		117
Vote to Accept		126

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C-O-N-T-E-N-T-S (CONTINUED)

	5
SEC Petitions Status Update LaVon Rutherford NIOSH	132
Questions and Comments	136
Board Work Session	142
July Public Comments	143
Meeting Dates	147
Work Group Reports	156
Dose Reconstruction Review David Kotelchuck	156
Procedures Wanda Munn	159
Santa Susana Phillip Schofield	161
Brookhaven Josie Beach	162
Fernald Brad Clawson	162
Hanford James Melius	162
Idaho Phillip Schofield	165
Gaseous Diffusion Phillip Schofield	167

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C-O-N-T-E-N-T-S (CONTINUED)

6

Board Work Session (Continued)

Work Group Reports (Continued)

Lawrence Berkeley Paul Ziemer	169
LANL Mark Griffon	170
Nevada Test Site Brad Clawson	172
Oak Ridge Genevieve Roessler	173
Pantex Brad Clawson	175
Pinellas Phil Schofield	175
Sandia Richard Lemen	177
Savannah River Mark Griffon	177
Scientific Issues David Richardson	180
TBD 6000 Paul Ziemer	184
6001 Henry Anderson	186
Weldon Spring Richard Lemen	186, 190

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C-O-N-T-E-N-T-S (CONTINUED)

8

Board Work Session (Continued)

Work Group Reports (Continued)

Worker Outreach Josie Beach	187
Mound Josie Beach	188
Rocky Flats Plant SEC Petition Evaluation (PV)	192
LaVon Rutherford NIOSH	194
Questions and Comments	236
Mark Griffon Work Group Chair	240
Terrie Barrie Petitioner	245
Questions and Comments	251
Letter from the Colorado Congressional Delegation Ted Katz	251
Board Deliberation	254
Motion	255
Questions and Comments	258
Vote to Accept	254

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C-O-N-T-E-N-T-S (CONTINUED)

	9
Public Comment	262
Instructions for Public Comment Period	262
Ted Katz	
Charles Padilla (Read into the record by Ted Katz)	263
Judy Padilla	270
John Krol	271
Nila Adkins	275
Peter Montez	281
Jerry Harden	287
Jack Weaver	289
Laura Schultz Reis	293
Faye Vlieger	296
Deb Jerison	304
Stephanie Carroll	309
Dan McKeel	316
Al Frowiss	325

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1 P-R-O-C-E-E-D-I-N-G-S 10

2 8:30 a.m.

3 CHAIRMAN MELIUS: Good morning,  
4 everybody. Welcome to the 94th meeting of  
5 the Advisory Board on Radiation and Worker  
6 Health. We are in Westminster, Colorado.

7 And I will let Ted do the  
8 preliminaries.

9 MR. KATZ: All right. Thank you.

10 Welcome, everybody. Welcome to  
11 whoever might be here from Rocky Flats site,  
12 too, and on the line from the public.

13 The agenda for the meeting and  
14 all the materials for the meeting's  
15 presentations are both on the back table in  
16 the room. And for those of you on the phone,  
17 they are on the NIOSH website under the DCAS  
18 portion of the NIOSH website, under the  
19 Board, under today's meeting. So, all of  
20 those materials will be listed there.

21 Also, the presentations will be

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1 webcast by LiveMeeting, and the LiveMeeting  
2 link is on the agenda. So, you can follow  
3 along as people present.

4 There is a public comment session  
5 today. One public comment session for this  
6 meeting is today from 5:00 to 6:00 p.m. We  
7 will take people in the room first and then  
8 on the line.

9 And let me ask everyone who is on  
10 the line to please mute your phone, so that  
11 we don't have that messing up the audio for  
12 the other people listening on the phone as  
13 well as in the room. And if you don't have a  
14 mute button, press \*6 to mute your phone and  
15 \*6 again to take your phone off of mute.  
16 But, please, everybody who is listening  
17 should mute their phone.

18 Okay, then, let's just do the  
19 roll call.

20 A couple of things to say to  
21 Board Members. As far as your microphones,

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1 please speak into your microphones. We will<sub>1</sub>  
2 check with the other Board Members to see  
3 that they can hear well. Your microphones  
4 are all on unless you hold down the button,  
5 and you have to hold it down the whole time  
6 to keep it muted; otherwise, it is on. So,  
7 all your microphones are live unless you're  
8 holding down the button.

9 Roll call, let's just go  
10 alphabetically. I'll address conflict of  
11 interest. We only have one session here with  
12 any conflict of interest anyway.

13 (Roll call.)

14 It's a full slate. We're doing  
15 well.

16 CHAIRMAN MELIUS: Okay. Just  
17 ahead of time, planning a little bit of  
18 scheduling here, as you may notice and may  
19 already know, Department of Energy and  
20 Department of Labor representatives are not  
21 here to present today because of the

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1 government shutdown. So, we will not be  
2 hearing from them today.

3 So, my plan was to first do the  
4 NIOSH program update, then do the sufficient  
5 accuracy coworker session. Then, we will  
6 probably take a break until 11:00, when the  
7 Sandia presentation starts, because we may  
8 have a petitioner on the line for that. We  
9 need to stick to the schedule on that.

10 So, is that satisfactory with  
11 everybody? Okay. Good.

12 Okay. So, we will start with the  
13 NIOSH program update, Stu Hinnefeld.

14 Good morning, Stu.

15 MR. HINNEFELD: Good morning, Dr.  
16 Melius and thank you. I'm trying to stall,  
17 take as much time as possible. We have a  
18 little time available on the agenda.

19 Since we are projecting the  
20 slides on LiveMeeting, that will help out a  
21 little bit with that because LiveMeeting

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1 isn't as responsive as just showing the  
2 slides from the computer.

3 So, thanks, everybody, for  
4 coming. I am going to say that Ted and I  
5 were rather pleasantly surprised when we got  
6 the okay to have the meeting earlier this  
7 week. I think it reflects, first of all,  
8 Ted's ability to explain the importance of  
9 the meeting in our request to have the  
10 meeting up the chain and recognition of the  
11 importance of the work of the Committee and  
12 the things that we want to accomplish while  
13 we are here this week.

14 And as I said, LiveMeeting will  
15 help us out, speeding things up -- or slowing  
16 things down.

17 Okay. I usually start with a  
18 little program news on the presentation. I  
19 put on impacts from the budget and funding  
20 situation because I thought people might be  
21 interested. Maybe I overestimate people's

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1 interest in this because of my particular<sup>15</sup>  
2 situation as a federal employee, but I  
3 thought people might be interested in how the  
4 current budget and funding, the government  
5 shutdown or partial government shutdown  
6 situation is affecting us, and even why can  
7 we be here.

8 The reason we can be here is  
9 that, unlike much of the government, the  
10 money for the EEOICPA program for us is  
11 awarded, is appropriated until expended,  
12 which means it does not have to be spent in  
13 the fiscal year for which it is appropriated.

14 Much of the government is funded by an  
15 annual appropriation, which means the  
16 appropriation is for fiscal year 2013 and it  
17 must be spent in 2013. So, programs that are  
18 funded by an annual appropriation, the second  
19 category, have no appropriation and have no  
20 money for the period of time we are in.  
21 Since NIOSH's -- the EEOICPA money is

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1       appropriated until expended, if we don't  
2       spend all of our money in a fiscal year, it  
3       is available to us in the days after the end  
4       of that fiscal year.

5                       And that is what we are doing.  
6       We are operating on what we call carryover  
7       money from the previous fiscal year. And  
8       that allows the DCAS Division to continue to  
9       operate as it has and it allows us to have  
10      this meeting. So, that it is the situation  
11      that it is in. We really try not to have  
12      carryover money at the end of the year. We  
13      try to use our money as quickly as we can.  
14      This year there were some administrative  
15      issues, partly associated with the  
16      sequestration law, partly some other things,  
17      that prevented us from spending as much as we  
18      wanted. And so, we had enough carryover  
19      money to keep us going this far, and for a  
20      little bit longer yet. So, that is why we  
21      happen to be here.

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1                   You will notice, though, some  
2 effects of the government shutdown on the  
3 meeting. As Dr. Melius alluded to, our  
4 Department of Energy and Department of Labor  
5 counterparts are not here. Our Office of  
6 General Counsel is not here. Our Office of  
7 General Counsel, just like much of CDC and a  
8 very large percentage of NIOSH, has been  
9 furloughed. And so, they are not available  
10 to provide legal advice to us or to travel to  
11 the meeting.

12                   The categories of employees under  
13 this furlough situation are exempted  
14 employees. That applies to us, DCAS. Yes,  
15 it is employees who have a source of funding  
16 that can keep their program going. There are  
17 furloughed employees, which is applied to --  
18 by my estimate, about 80 percent of NIOSH has  
19 been furloughed. That means those people are  
20 sent home and are not receiving paychecks.

21                   And then, there is a category of

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1 employees called excepted, which are  
2 employees for whom there is no money, but  
3 their work is essential to keep things going;  
4 first of all, to shut things down in an  
5 orderly fashion, and then, to start things up  
6 when things start back up. Those people are  
7 called excepted, and they are working without  
8 pay.

9 And in NIOSH, there is also a  
10 category of individuals who are commissioned  
11 officers in the Public Health Service, and  
12 they are also working ostensibly without pay,  
13 but they get paid on a monthly basis. So,  
14 they haven't missed a paycheck yet. The  
15 furloughed and excepted people have had an  
16 abbreviated paycheck and are moving toward  
17 missing an entire paycheck because the second  
18 pay period ends this Friday.

19 So, that is the grand scheme of  
20 the situation and how things are affected.  
21 Let's see if I have covered everything I

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1 wanted to cover. 19

2 A couple of other impacts, you  
3 know, on our program because of this: while  
4 we do have some funds, some carryover funds,  
5 we are holding onto those to the extent we  
6 can. And so, other than this trip, we have  
7 cancelled all of our travel for the next  
8 couple of weeks or up through now. We had a  
9 trip planned this week where a federal  
10 employee was going to accompany our  
11 contractor to the Kansas City plant. We  
12 cancelled the federal employee out of that,  
13 although our contractor has a little more  
14 leeway to spend the money. They know how  
15 much money they have, and they had planned to  
16 do that work.

17 And we had planned a data-capture  
18 and plant tour at Sandia National Lab for  
19 next week that was strictly federal  
20 employees, including, I believe, a Board  
21 Member. And that has been cancelled also.

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1 Those cancellations were due to our funding  
2 situation and the fact that none of our FY13  
3 funding that we have carried over was  
4 allocated to those trips.

5 So, that's the effect of our  
6 budget cuts. Now there appears that there  
7 could very well be some effect on our  
8 operations by the restriction and the partial  
9 shutdown of our counterpart agencies, the  
10 Department of Labor and the Department of  
11 Energy.

12 The Department of Labor, I'm not  
13 real clear what their status is. We know  
14 that our counterparts are working. I am not  
15 sure if they are exempt, if they have a  
16 source of funding, or if they are excepted  
17 and are working without pay. They have been  
18 instructed to only work on certain types of  
19 their responsibilities. And we know that  
20 they can move claims forward, but I think  
21 they are very limited on doing other kinds of

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1 activities. And so, they weren't permitted<sup>21</sup>  
2 to come here.

3 It has been a little difficult to  
4 find out exactly what is going on on their  
5 side because, when I called and asked, I got  
6 a phone message that says, "Leave a message,"  
7 you know, "We can work on some things, but  
8 not others. Leave a message, and if it's one  
9 of the things we can work on, I'll call you  
10 back." And they didn't call me back. So, I  
11 don't know what the situation exactly is at  
12 the Department of Labor. That was Jeff  
13 Kotsch's phone that I called.

14 The Department of Labor, they  
15 will speak to me -- or the Department of  
16 Energy, I mean, will speak to me. They are  
17 actually not entirely clear on what their  
18 situation. They have heard varying dates on  
19 how long their carryover money will last.  
20 They are working on carryover money. They  
21 know that. I am talking about my

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1 counterparts. 22

2 They have heard varying accounts  
3 of how long the carryover will last, and they  
4 were rather surprised last week when one of  
5 the programs working in headquarters received  
6 furlough notices, when kind of the word --  
7 there seems to be this unofficial word going  
8 around the building -- was that everybody was  
9 okay for longer than that. So, they don't  
10 know exactly what their fate is going  
11 forward, but they are working on carryover  
12 money.

13 And the operation is going to  
14 affect a number of the sites, apparently,  
15 very soon, where we go and try to gather  
16 information from. Again, my counterparts in  
17 the Department of Energy had really no  
18 particular intel on each site, on how sites  
19 were being affected. I asked them about  
20 press accounts that we have seen about  
21 various sites being affected this week and

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1 next, and they said, "Well, those dates<sup>23</sup>  
2 probably came from the Press Office." That  
3 is the DOE Press Office. So, they are  
4 probably good. But my counterparts didn't  
5 have any additional information on that.

6 There was a press account  
7 yesterday that said some furlough notices  
8 would start going, could start going to  
9 Hanford employees today, and then, the  
10 effective date I believe I have from Hanford  
11 from an earlier press account was, I think,  
12 either Friday or Monday; they would have to  
13 be shut down by that date.

14 Y-12, the press account I saw was  
15 from nature.com. It was the science blog of  
16 nature.com. Y-12's date was October 17th.  
17 Los Alamos was October 18th; Sandia, the  
18 21st; Hanford, the 21st, and Oak Ridge  
19 National Lab was in a little better shape.  
20 They could go into November, some unspecified  
21 date in November.

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1                   These sites now, Savannah River<sup>24</sup>  
2 was not mentioned in any of the press  
3 accounts. But, through our contacts with  
4 Savannah River, our understanding is that  
5 they are actually being affected this week,  
6 that they are curtailing operations,  
7 curtailing their EEOICPA operations to only  
8 responding to claim, you know, exposure  
9 history requests and verification for the  
10 Department of Labor, you know, the  
11 verification of the information they supply  
12 to the Department of Labor. So, they are not  
13 supporting our work.

14                   And because of that and the  
15 withdrawal from or reducing that level, I  
16 believe those activities will probably stop  
17 if things aren't settled here in the next day  
18 or so.

19                   But, because they have withdrawn  
20 to only dealing with claims, Savannah River  
21 has cancelled a planned data-capture trip

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1 down there for the week of November 4th. 25

2 So, it is affecting how we can  
3 accomplish things and how quickly we can  
4 accomplish things. And so, we are working  
5 with the terms of the shutdown as best we  
6 can, and we will continue to do that as we go  
7 forward.

8 Okay. I can try to answer any  
9 questions if anybody has any, but I don't  
10 know just a whole lot more than what I just  
11 said.

12 Okay. I always comment on  
13 personnel actions when I am here. I think I  
14 may have mentioned this last time, and I know  
15 I mentioned it on the phone call. I was  
16 going to introduce DeKeely Hartsfield to  
17 everybody here. DeKeely Hartsfield is an  
18 employee of NIOSH who is a lawyer, has not  
19 been working in the Office of General  
20 Counsel, but has been detailed to the Office  
21 of General Counsel for the coming year

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1 because Jenny Lin, our normal counsel, has<sup>26</sup>  
2 been detailed to an active-duty assignment.  
3 She is in the Air Force Reserve. She has  
4 been detailed to an active-duty assignment  
5 that was supposed to start October 9th.

6 Now Jenny was furloughed by OGC  
7 before October 9th, and I have not heard from  
8 Jenny to know whether she actually started  
9 her active-duty tour on the 9th or not.

10 So, at any rate, DeKeely is going  
11 to serve in Jenny's role. DeKeely, though,  
12 has to work under the supervision of a senior  
13 attorney in the Office of General Counsel for  
14 the time being, since she has not been in the  
15 Office of General Counsel until just the last  
16 couple of weeks. So, she has to work under  
17 the supervision of a more senior attorney in  
18 the Office of General Counsel, and they are  
19 furloughed. So, there is no one there to  
20 give her advice. And so, she also is  
21 furloughed.

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1 I couldn't make this stuff up. 27

2 Until recently, we have been  
3 continuing some joint -- or outreach  
4 activities to the claimant community. We  
5 participated in a Joint Outreach Task Group  
6 meeting in Northern California. This was  
7 back in early September. That was for the  
8 Livermore site and Berkeley. One of the  
9 meetings was in Livermore and another was in  
10 -- I forget the name of the town, but it was  
11 closer to Berkeley.

12 These were put on by the Joint  
13 Outreach Task Group, which is a kind of  
14 collaborative effort among us, DOE, and DOL.

15 DOE's former workers' monitoring program, in  
16 addition to their EEOICPA staff, play a role  
17 in that. And it is to make these programs  
18 better known to the folks out there.

19 Also, right at the end of  
20 September, our outreach contractor, ATL, put  
21 on another of their dose reconstruction and

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1 SEC workshops in Cincinnati, where we bring  
2 labor representatives and advocates, other  
3 interested people, into Cincinnati and we  
4 have a two-day workshop.

5 Much of the instruction is given  
6 by DCAS staff, although ATL does some of the  
7 instruction as well, to kind of help improve  
8 these people's familiarity with the program,  
9 hoping that they will be resources, then, for  
10 the workforces that they represent and that  
11 they advocate for, and, also, that they will  
12 feel more comfortable on contacting us and in  
13 contacting Denise Brock, for instance,  
14 knowing where to go to ask questions. And  
15 they can kind of know us as people as opposed  
16 to an anonymous email address. We thought  
17 that they would be encouraged to ask us  
18 questions more.

19 We got a bunch of nice reviews.  
20 You know, there is a Class Evaluation form  
21 that ATL uses at the end. Most of the people

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1 were very complimentary of the class. So, we  
2 hope we reached some people there and have  
3 provided them as resources to their  
4 communities.

5 And then, one final topic, I  
6 believe, on my program news has to do with  
7 the change in the Pacific Northwest National  
8 Laboratory facility description. And this  
9 came up, this happened about the time of the  
10 last phone call meeting, but I didn't discuss  
11 it then.

12 And I am really wondering what is  
13 going on with my slides.

14 The original covered period for  
15 the PNNL facility description in the Federal  
16 Register and on the DOE website was that it  
17 started in 1965 and ran to the present. PNNL  
18 is Pacific Northwest National Laboratory.

19 That appears to be, actually, the  
20 time that Battelle Memorial Institute started  
21 running the laboratory operations for

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1 Hanford. Part of this was based on the<sup>30</sup>  
2 research of what we were doing out there when  
3 we were trying to sort out PNNL and Hanford,  
4 and I think part of it was based on research  
5 that DOE was doing anyway and looking into.

6 What that research indicated was  
7 that, from 1965 until 2004, the PNNL  
8 activities that were conducted were actually  
9 on the Hanford part of what was considered  
10 the Hanford reservation. So, there wasn't a  
11 separate facility for PNNL until about 2005,  
12 when they did, actually, either receive title  
13 to some of the property that used to be  
14 Hanford or, for whatever reason, they now  
15 have property that is now theirs. It is no  
16 longer part of the Hanford reservation.

17 And because of that, then, the  
18 Department of Energy and the Department of  
19 Labor agreed to revise the site descriptions  
20 for both Hanford and PNNL. You know, the  
21 Hanford description was revised to indicate

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1 that the lab, the PNNL laboratory, operated<sup>31</sup>  
2 on Hanford from 1965 through 2004.

3 And then, fortunately, our dose  
4 reconstruction guidance for PNNL has been up  
5 until now using the Hanford guidance. And  
6 so, we had been treating PNNL claims as if  
7 they were Hanford claims anyway. And so,  
8 what we had been doing is consistent with  
9 this new redesignation.

10 From my conversations with the  
11 Department of Labor, my understanding is they  
12 had been administering the Hanford SEC in the  
13 same fashion, that PNNL workers who were  
14 working on the Hanford site during the period  
15 of the Hanford SEC were, in fact, being  
16 placed in the Hanford SEC. And so, if they  
17 would send us one that we thought was in for  
18 dose reconstruction, we would ask them, "Hey,  
19 this doesn't look like one we can do because  
20 this person was working at Hanford during  
21 this period."

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1                   So, fortunately, I think that the<sup>32</sup>  
2                   redesignation just kind of removed a little  
3                   bit of the confusion factor in how things  
4                   were arranged, but it didn't cause a change  
5                   in how we were doing dose reconstruction, and  
6                   I don't think it caused Labor any heartburn  
7                   in what they were doing.

8                   Because I remember when this  
9                   topic first came up, the Department of Labor  
10                  people were a little against it. They said,  
11                  "Are you going to tell me that PNNL employees  
12                  shouldn't be in Hanford, because we have been  
13                  putting them in the Hanford SEC." And we  
14                  said, "Well, no, actually, what we are  
15                  telling you is they really should be in the  
16                  Hanford SEC prior to 2004." So, of course,  
17                  the Hanford SEC only goes through '83, but  
18                  I'm getting my dates confused a little bit  
19                  here.

20                  So, it seems to be a  
21                  recordkeeping issue, and it didn't actually

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1 have any practical effect on claims as they<sup>3</sup>  
2 are being processed.

3 Well, none of my shortcut keys  
4 seem to be working on advancing slides.

5 Now we are going to have the  
6 statistical portion. I won't go through here  
7 and read all the numbers. I did, since I  
8 knew I would have some time, I did look  
9 through old numbers from the last  
10 presentation to see how they had changed.

11 The total number of cases has  
12 increased by about 600 since the last report  
13 that I gave, and it was three months ago.  
14 So, that is almost exactly 200 a month. The  
15 change is something like 611. So, we are  
16 staying very close to our historical from the  
17 last several years input of 200 new claims a  
18 month.

19 Cases that have been returned to  
20 DOL, the 38,000 is up by about 1400. Cases  
21 at NIOSH for dose reconstruction is up

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1 somewhat from about 1,413, and the<sup>34</sup>  
2 administrative closed cases is up by about a  
3 dozen. So, that is the change since the last  
4 report I made on those items.

5 On the next slide, like I said,  
6 there were 1,413 cases at NIOSH. The number  
7 of cases of the initial dose reconstructions,  
8 the second bullet down there, is up about, it  
9 looks like it is up eight from the last  
10 report. So, a few additional ones there.

11 The number in the dose  
12 reconstruction process is up by about 30 from  
13 the last term. And, of course, the ones  
14 awaiting development are up somewhat, too.

15 Oh, about 130 additional cases  
16 have been submitted since the last report  
17 with PoCs of greater than 50 percent. The  
18 percentages remain about the same. Somewhere  
19 around 30 percent of the cases are  
20 compensable that we do through dose  
21 reconstruction. So, that number has been

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1 pretty steady. It is down a little bit from  
2 a few years ago. It is in the low thirties  
3 now. It is down to about 30 or even dipping  
4 a little below 30.

5 We attribute that to the larger  
6 number of SECs that are in place now and more  
7 cases being paid through the SEC process and  
8 don't come over to us for dose  
9 reconstruction. And the SEC cancers include  
10 the ones that are most likely compensated by  
11 dose reconstruction.

12 This is our chart of submittals  
13 versus production, updated for another  
14 quarter from last time. It looks pretty much  
15 the same as last time. You can see we have  
16 been pretty steadily around -- these are  
17 quarterly numbers. So, the input stays  
18 around 600 pretty steadily for the past  
19 several years, actually.

20 And going through status, the  
21 first 5,000 claims, there are some small

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1 adjustments here. These cases that are being  
2 in the dose reconstruction process down  
3 there, the claims at NIOSH, these are cases,  
4 in the first 5,000 these are cases that are  
5 reworks or have been reinstated within the  
6 past year. Reinstated within the past year  
7 would be cases that were pulled for some  
8 reason or have come back to us for some  
9 reason within the past year. The reworks are  
10 cases where usually the claimant gets an  
11 additional cancer. And so, the case is sent  
12 to us for rework. That is usually why we get  
13 a rework.

14 The same is true for the first  
15 10,000 cases. You have the same kinds of  
16 categories. The initial cases that would  
17 come in were cases that were CLL cases. You  
18 know, the fact that we are doing the initial  
19 dose reconstruction on those is these were  
20 CLL cases that DOL erroneously referred to us  
21 originally. At the beginning of the program,

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1 there were a number of cases that were CLL<sup>37</sup>  
2 cancers only. CLL wasn't covered at the  
3 time, but it took DOL a little while to pick  
4 up on that. So, they referred us a number of  
5 CLL cases early on that they then pulled, and  
6 then, these have been recently reinstated  
7 with the rule change. And so, we are working  
8 through that.

9 The CLL process involves sort of  
10 a site-by-site revision of the site dose  
11 reconstruction tools, and the CLL model is a  
12 fairly complicated calculational model. So,  
13 it takes a while to build the modules into  
14 those tools that will accommodate the CLL  
15 dose reconstruction process. And so, we are  
16 working through that.

17 We have gotten through most of  
18 the sites. We are down to the cases now  
19 where any particular change is going to only  
20 address a handful, you know, maybe two or  
21 three or five CLL cases. And so, the

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1 progress in terms of wrapping up the end, the <sup>38</sup>  
2 tail of the CLL cases, is somewhat slower  
3 than when we had the original body, when we  
4 could pick a large site and, by getting a CLL  
5 tool in place for that site, you could move a  
6 lot of cases into the doable category. All  
7 those big chunks have been moved. So, now we  
8 are down to moving the small chunks. But,  
9 unfortunately, the amount of work needed to  
10 build that module into the tool doesn't go  
11 down much just because you have fewer claims.  
12 So, the end of the tail as a usual takes  
13 more effort and kind of drags out a little  
14 bit.

15 DOE's response to exposure  
16 requests, it is a little unfortunate that  
17 they are not here to take credit for this.  
18 This shows considerable improvement since the  
19 last report. The last report, the number of  
20 outstanding requests was 373. So, they are  
21 down by 150 on the total number of

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1 outstanding claim requests, and the  
2 outstanding requests greater than 60 days at  
3 the last report was 73. So, they are down by  
4 30 in that category. So, it shows a marked  
5 improvement.

6 And I think it is based on some  
7 real emphasis from DOE headquarters to the  
8 DOE sites, and then a couple of DOE sites  
9 that have been kind of recalcitrant, have  
10 been kind of slow responders and had the  
11 backlog, both of the old ones and large  
12 numbers, working through those claims. So,  
13 it is attention by a couple of sites that  
14 really I think is the big improvement in  
15 that. Most of the sites have continued to  
16 click along pretty steadily and provide  
17 pretty good response.

18 It could very well also be some  
19 improvement in terms of the total outstanding  
20 requests by the use of electronic data  
21 transfer, a process that DOE has built to

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1 facilitate the secure movement of electronic<sup>46</sup>  
2 records between DOE facilities and us and  
3 between DOE facilities and the DOL district  
4 offices and DOL headquarters.

5 That system, which is called SERT  
6 for Secure Electronic Records Transfer  
7 system, has been in place. And rather than  
8 now getting a paper report, paper exposure  
9 history, or a CD with electronic exposure  
10 history on it, electronic history is just  
11 loaded onto a computer on their end. That  
12 computer talks to our computer, and then, we  
13 can download those records.

14 The system has a tracking system.  
15 So, it keeps track of requests that are  
16 outstanding and responses, replies that come  
17 back. So, it has really improved the process  
18 of response. I think that probably has to do  
19 with that decrease in the number of  
20 outstanding requests as well.

21 Now, of course, no good deed goes

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1 unpunished. And because of that, there was<sup>41</sup>  
2 some ramification on a couple of our  
3 employees because of a cybersecurity issue at  
4 DOE. This occurred earlier in the year.  
5 Some of you may have heard about this. Some  
6 of you may have gotten a letter about this.  
7 I don't know. It depends on whether you ever  
8 worked with DOE headquarters.

9 There was a hacking into the DOE  
10 essentially personnel system. The hackers  
11 got in through -- I don't know how things  
12 work, but they hacked in through a public-  
13 facing website of DOE, not the EEOICPA  
14 website, but a different one.

15 And so, because of that, personal  
16 information for a large number of DOE  
17 employees was compromised. And the  
18 authorized users on this SERT system had to  
19 provide certain personal information to DOE  
20 to be authorized to use their system.  
21 Essentially, it authorizes them as users on

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1 the computers, the DOE computer system<sup>42</sup>  
2 because the SERT runs on a DOE computer  
3 system.

4 Because of that, the personal  
5 information of this -- you know, there were  
6 like three NIOSH employees who had access.  
7 Their information was compromised, and I  
8 would remember about somewhere between eight  
9 and a dozen DOL employees were in the same  
10 situation. So, that caused a bit of a flap.

11 That same cybersecurity issue at  
12 DOE has led to some intermittent issues with  
13 the DOE's EEOICPA public-facing website and  
14 the find facilities website. So, if you have  
15 been trying to use those websites in the past  
16 few months, you may have encountered times  
17 when they were not available because, there  
18 again, they have kind of been up. They were  
19 down for a while, and then, they were put  
20 back up, but there have still been some  
21 intermittent usage issues there, as they are

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1       trying that. As I understand it, they are<sup>43</sup>  
2       moving it to new hardware to improve its  
3       security.

4                       So, because of the security issue  
5       with the DOE website and the intermittent  
6       availability -- excuse me. I guess my time  
7       is about up.

8                       CHAIRMAN MELIUS: You've got two  
9       hours, so.

10                      MR. HINNEFELD: Yes. I am going  
11       to have to do something besides talk. I  
12       don't have any idea what that would be.

13                      Because of the intermittent  
14       availability of the DOE find facility  
15       website, we have placed a PDF version of the  
16       information on the website. You know, DOE  
17       provided that to us, and we have placed it on  
18       our website with a link. You know, you can  
19       go to our website. I think it is maybe under  
20       the covered facilities button and there would  
21       be a link to a PDF that shows the information

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1 on covered facilities. I believe it ~~is~~<sup>is</sup>  
2 searchable, OCR. So, you can bring it up as  
3 a PDF file, search it for the site you're  
4 interested in, and you can see the  
5 information on the DOE covered facilities  
6 website from that PDF file.

7 Like I said, we checked a week or  
8 so ago, and we got on the website just fine.

9 We checked a couple of days later; we  
10 couldn't get on. So, they are still having  
11 some intermittent things going on there, I  
12 think because of they're moving hardware, as  
13 I understand it. So, that is another issue  
14 that we ran into this summer.

15 The rest of the statistics I  
16 guess I had better not talk about since I  
17 can't talk anymore. That is very small  
18 change. I think Bomber will give additional  
19 information about the SECs later on anyway.

20 And I think that is all I have  
21 here.

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1 I can't go that way. So, 45  
2 wonder if this going to work. I am afraid  
3 that will close me all the way out of  
4 LiveMeeting.

5 I don't have anything else to  
6 talk about. So, if anybody has any  
7 questions, I will be glad to answer them.

8 I am just trying to figure out  
9 the hardware. I knew we would be in trouble  
10 when I started being tech support at these  
11 meetings.

12 CHAIRMAN MELIUS: I thought that  
13 was LaVon on that.

14 MR. HINNEFELD: He'll get it  
15 after this week, that's for sure.

16 CHAIRMAN MELIUS: Now we've got  
17 music.

18 MR. HINNEFELD: I hope no one is  
19 expecting me to dance.

20 CHAIRMAN MELIUS: Okay. Does  
21 anybody have questions for Stu before he does

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1 more damage to the computer? 46

2 (No response.)

3 I do. I have raised this issue.

4 I would like to get input from other Board  
5 Members on it.

6 I am a little concerned about the  
7 PNNL facility designation that is sort of  
8 being done, that is sort of being added to  
9 the SEC without ever being reviewed by the  
10 Board. And it is not a situation we have  
11 necessarily encountered before. We have  
12 encountered where years have been added to a  
13 facility designation, additional years.  
14 Usually, that is after we have taken action  
15 and comes back. When it is in the process,  
16 we do it all as one.

17 But in this case we have a site  
18 that has sort of been folded into another  
19 site. We originally took action on that site  
20 under its old designation, Hanford.  
21 Suddenly, there's a whole bunch of new

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1 employees that come in. And while I suspect<sup>4</sup>  
2 that the steps that have been taken to  
3 essentially just fold them into the Hanford  
4 SECs, and so forth, is appropriate, I don't  
5 think this has ever been reviewed by the  
6 Board or the Work Group.

7 I raised this issue earlier and  
8 didn't know if someone would -- trying to  
9 interest somebody into going back into the  
10 transcripts or earlier records and reports  
11 and seeing what we had determined there.

12 But somehow it seems to me we are  
13 skipping a step here. Our attorney isn't  
14 here, and our attorney wasn't involved when I  
15 raised this issue before. And I guess I  
16 would like to get some feedback on it. Then  
17 I also have a suggestion.

18 MR. HINNEFELD: Well, yes, I know  
19 we really didn't, I don't think we talked  
20 about it very much. But much of the work  
21 that was the basis for the Class was, in

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1 fact, done by PNNL. We know the work that<sup>48</sup>  
2 was the basis for the most recent extension  
3 of the Class through `83 was, in fact, PNNL  
4 work on the Hanford reservation.

5 CHAIRMAN MELIUS: Right.

6 MR. HINNEFELD: And so, from that  
7 standpoint, that gives us a sense of comfort  
8 that what we have done conforms with the  
9 evidence in front of us.

10 CHAIRMAN MELIUS: Yes.

11 MR. HINNEFELD: Now I don't know  
12 that that was explicitly described. I can't  
13 remember the transcripts. We would have to  
14 go back and look. Sam did a lot of this  
15 research. So, I am looking to Sam.

16 CHAIRMAN MELIUS: Yes, and there  
17 are earlier Work Groups, earlier SEC Class  
18 designations where I think it was maybe less  
19 evident. I recall it during the more recent  
20 extension of the Class, but not earlier. But  
21 earlier was also a long time ago, and I'm not

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1       sure I remember -- 49

2                   MR. HINNEFELD:    Yes.

3                   CHAIRMAN MELIUS:    -- everything  
4       we talked about.  And we always knew it was  
5       sort of up in the air as to how PNNL would be  
6       handled.

7                   But I don't know if Dr. Ziemer or  
8       others have comments.

9                   MEMBER ZIEMER:     Well, I don't  
10      recall myself.  I was going to ask if LaVon  
11      Rutherford or one of the other staff members  
12      may remember whether the Evaluation Report  
13      for the SEC explicitly included the PNNL  
14      component.  Does anyone recall?

15                  MR. HINNEFELD:    Yes, I think we  
16      didn't include the language because the  
17      facilities, the PNNL facilities, up until  
18      2004, are on Hanford.  So, the error in our  
19      minds all along has been that there was a  
20      site designated that was considered separate  
21      from Hanford until 2004, which really wasn't.

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1       And so, all the work that was being done<sup>50</sup>  
2       during these SEC periods was on the Hanford  
3       site. And so, even though we thought there  
4       was, there was not really another site in  
5       existence out there at the time.

6               So, when we add the Hanford  
7       Class, and the Hanford Class was essentially  
8       added for the full site because of difficulty  
9       in placing people in particularly the 100,  
10       200, and 300 areas essentially with that.  
11       So, it became an all worker Class.

12               It seems that anyone who happened  
13       to work for PNNL during that time, they were  
14       working on the Hanford reservation; the same  
15       thing could apply to them that would apply to  
16       other Hanford employees.

17               CHAIRMAN MELIUS:       Yes, but I  
18       think we have to be careful to separate out  
19       what is a Class Definition and what  
20       considerations go into that in terms of what  
21       is the basic findings that justify the Class.

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1 MR. HINNEFELD: Okay. 51

2 CHAIRMAN MELIUS: So, the  
3 placement issue is usually a Class Definition  
4 issue. It may not be because it may also be  
5 part of the original designation. But, as I  
6 recall in Hanford, it was mostly a placement  
7 issue once there was a finding that doses can  
8 be reconstructed, then we can't figure out  
9 who that would apply to.

10 And again, I am fairly confident  
11 that this is justified. I am just concerned  
12 that we, as a Board, and in your reports this  
13 has never been specifically considered. Now,  
14 again, I could be wrong. My memory could be  
15 -- it could have been -- PNNL could have been  
16 added in, but a sentence or two in some of  
17 the reports that I don't recall.

18 Jim?

19 DR. NETON: I think Stu might  
20 have said this, but I think the easiest way,  
21 in my mind, to look at this is PNNL was a

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1 contractor working on the Hanford facility<sub>2</sub>

2 So, they are covered in the Class Definition.

3 CHAIRMAN MELIUS: Well, but are  
4 they?

5 DR. NETON: They are.

6 CHAIRMAN MELIUS: Yes, but did we  
7 at the time consider them? I mean, after the  
8 fact, you know --

9 DR. NETON: But, I mean, the  
10 Class Definition I am sure says like  
11 contractors, subcontractors, and such. I  
12 don't think it specifically called out PNNL  
13 as a contractor, but that's what they were.  
14 So, by definition, they would be covered in  
15 that facility definition.

16 CHAIRMAN MELIUS: But was the  
17 Board aware of that at the time? You don't  
18 want a post-hoc designation.

19 Yes, Paul?

20 MEMBER ZIEMER: Well, perhaps one  
21 of the issues was that that area that we had

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1        been calling PNNL, we didn't consider that ~~to~~<sup>to</sup>  
2        be part of the Hanford site at the time.  
3        That would be sort of the technical issue.

4                    CHAIRMAN MELIUS:    Yes, right.

5                    MEMBER    ZIEMER:            I think we  
6        thought the boundaries were other than they  
7        are.    So, it wouldn't be clear at that point  
8        whether those who were actually PNNL people  
9        had full access to what we were calling the  
10       Hanford site.    I suspect they were.    I think  
11       their badges allowed them access.    But I  
12       guess your question is, was that considered  
13       and is it clear that this boundary change  
14       doesn't somehow alter what our consideration  
15       was.

16                   CHAIRMAN MELIUS:    Correct.    You  
17       know, was there independent monitoring?    Was  
18       there something else that we never  
19       considered?    Now maybe there wasn't.    I am  
20       not saying there was, but it seems to me that  
21       we need to have at least some record of

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1           having reviewed that issue. 54

2                           And my suggestion was going to be  
3           that someone look into this and, then, we  
4           have a Hanford Work Group. We have a meeting  
5           coming up sometime in the next few months.  
6           What happens with the government reopening  
7           and people getting out to the site, and a  
8           whole bunch of administrative issues? But we  
9           talk about it in detail then when NIOSH has  
10          more time to look into this and just clarify  
11          this.

12                           I'm trying not to make a lot more  
13          work for you, but I think there ought to be  
14          at least some due diligence on this issue.

15                           Stu? And if you want to look  
16          into it a little bit and come back, we can  
17          talk about it later and have more time and  
18          support it.

19                           MR. HINNEFELD: I think the  
20          Hanford Work Group probably is the right  
21          place for the discussion.

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1 CHAIRMAN MELIUS: Yes. 55

2 MR. HINNEFELD: And I think that  
3 we can do some research in the meantime about  
4 the bases for those earlier classes. We know  
5 the latest extension; that was Battelle.

6 CHAIRMAN MELIUS: Right.

7 MR. HINNEFELD: Battelle was  
8 certainly involved in the work.

9 CHAIRMAN MELIUS: Right.

10 MR. HINNEFELD: That was the  
11 reason for the latest extension of 383. We  
12 can go back to the earlier periods and see  
13 what we think about that as well.

14 CHAIRMAN MELIUS: Yes. And  
15 again, we can decide as a Board, but if we  
16 have some record of that it was reviewed in  
17 some way, because this is an unusual  
18 circumstance. I think we would be okay, but  
19 I just worry about somebody coming back later  
20 and saying, "Why was this added? What was  
21 the basis for it?", and so forth.

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1 Yes, Brad? 56

2 MEMBER CLAWSON: Being involved,  
3 I was up there with Sam and everything else  
4 on this. My issue, being on the Hanford Work  
5 Group, my issue was a different one. It was  
6 how are they going to, with PNNL, how are  
7 they going to differ it? Because for so long  
8 they were all combined together, especially  
9 the 300 areas and everything else.

10 When we went on our tour, it  
11 became a little bit more clear to me, and I  
12 do think that NIOSH needs to sit down with  
13 the Work Group. But in 2004 was when they  
14 separated all of their monitoring from the  
15 Site Profile. Also in the 300 area is when  
16 they totally took it over.

17 But, before that, they had shared  
18 services. They had Hanford people and  
19 everything else. But, in 2004 -- actually,  
20 it was a little bit sooner than that -- but  
21 that is where the 2004 came from, was mainly

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1 from the dosimetry, and so forth. 57

2 But it made sense to me after  
3 going on the tour and understanding how the  
4 separation happened. But, you're right, it  
5 would probably be good to bring it to the  
6 Work Group and make sure that we're onboard  
7 with where it was at.

8 CHAIRMAN MELIUS: I guess I just  
9 get a little concerned when the basis is,  
10 well, DOL has been doing it this way. That  
11 is not a finding by NIOSH or the Board on  
12 this. I think we need to be more permanent.

13 Anybody else have comments?

14 (No response.)

15 I'm not trying to make a lot of  
16 work, but I think we ought to do some due  
17 diligence.

18 Any other questions for Stu?

19 (No response.)

20 Okay. I was going to entitle  
21 this "The Two Jims," you know, like the Four

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1 Irish Tenors, and so forth. But we had 58  
2 little tryout this morning, and the two Jims  
3 flunked. So, we will spare you that part of  
4 the presentation.

5 This is a continuation of  
6 discussions at our last meeting where we  
7 talked about sufficient accuracy. That sort  
8 of led into the issue of coworker dose  
9 modeling going on. And so, at that meeting  
10 we said we would have a follow-up Work Group  
11 meeting of the SEC Evaluation Work Group,  
12 which we had a real-live meeting in  
13 Cincinnati the end of the fiscal year, where  
14 a group of us got together.

15 It included representatives from  
16 SC&A; ORAU; Tom LaBone, a statistician who  
17 has been very involved in some of the  
18 coworker modeling issues; Jim Neton; Stu; Tim  
19 Taulbee. I forget the whole group. I know  
20 LaVon wasn't there because we couldn't find  
21 him in the office that day, but went looking

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1 for him, but others were. 59

2 We had pretty much an all-day  
3 meeting to discuss coworker issues and try to  
4 sort of figure out a path forward. It was a  
5 very in some ways informal meeting, and just  
6 basically trying to work out what we could  
7 do, what might be done, and how do we deal  
8 with this issue.

9 At that point, a lot of the focus  
10 was on some SRS coworker modeling and an SC&A  
11 review of that and a NIOSH response to that.

12 I will spare you a lot of the details. I  
13 will talk to you a little bit about some of  
14 the issues, but I think it is not -- while it  
15 was a good meeting, I'm not sure repeating it  
16 all will be all that helpful to us.

17 This is from our last  
18 presentation I did in essentially our  
19 previous Work Group meeting, where we had  
20 talked about sufficient accuracy and where  
21 the issue of evaluating the coworker models.

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1       And particularly the focus, the time has  
2       been on coworker models and the whole  
3       stratification issue of how do we deal with  
4       different groups of employees within a  
5       facility. Do we use just one set of sampling  
6       data for them? Are these groups different in  
7       some way? How do we determine that they are  
8       different? I will go into more detail on  
9       that. So, that had been the focus.

10               Just sort of going back a little  
11       bit, I think one of the things that became  
12       clear to us as we went through this is we  
13       really had never done, as NIOSH and DCAS and  
14       the Board was sort of stepping back and  
15       looking at the overall coworker issue,  
16       because there's lots of other issues that  
17       they come up with with coworkers.

18               We were focusing on the  
19       stratification, which was important. A lot  
20       of this was construction versus production  
21       workers. But there's lots of other issues

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1       there that need to be addressed in some ways,<sup>61</sup>  
2       and so forth, because we have lots of  
3       coworker models out there. It is not clear  
4       to what extent they are all the same and  
5       follow sort of the same pattern, the same set  
6       of rules. And then, how do we evaluate them  
7       as a Board or how does NIOSH evaluate them?

8               So, part of this -- and this is a  
9       slide I stole from Jim Neton. His full  
10      presentation at that meeting is on the  
11      information that has been handed out for this  
12      meeting. So, you have the full presentation.

13      There are a couple of slides that I borrowed  
14      from him. And since I borrowed from him, I  
15      also told him he could explain them. His  
16      explanation, they puzzled me when I looked at  
17      the presentation, but his explanation of them  
18      was very helpful to our deliberation.

19              So, I'll let go Jim go.

20              DR. NETON: Okay. Thank you, Dr.  
21      Melius.

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1                   This should look familiar. 62  
2                   presented this slide and the next slide at  
3                   the last meeting. But I started off our  
4                   meeting with these couple of slides, and it  
5                   sparked some pretty vigorous discussion, I  
6                   would say. I think we didn't get past these  
7                   two slides for the first hour of the meeting,  
8                   which I was surprised at.

9                   But, nonetheless, this is an  
10                  example of the bioassay distribution that we  
11                  would have for a single year. We would take  
12                  all the urinalysis data, for example, and  
13                  rank them from highest to lowest as a  
14                  cumulative probability plot, and you end up  
15                  with this sort of standardized normal plot  
16                  where zero on the X-axis would be the median  
17                  value, the geometric mean of the  
18                  distribution. And one standard deviation up,  
19                  the arrow at 1.0, would be the 84th  
20                  percentile of the distribution.

21                  This is what we have proposed to

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1 say is the excretion for that year for that  
2 facility for that coworker model set. Now  
3 the whole stratification issue has revolved  
4 around, does that particular dataset that  
5 includes all employees, is that  
6 representative of subsets of the population,  
7 different strata? The examples that we deal  
8 with most often are construction workers,  
9 trades workers, those sort of folks, who the  
10 value at zero may be higher and the GSD may  
11 be larger. So, you may be biasing these  
12 folks' results on the low side.

13 But this is just the first part  
14 of doing a coworker model. This is getting  
15 the urinary excretion, representative urinary  
16 excretion for that particular year. But if  
17 we go to the next slide, I was trying to  
18 focus on the fact that this is really the  
19 crux of the issue. When you take each one of  
20 the data points on that graph that you see,  
21 which represents one year, the geometric

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1 mean, that zero point for one particular  
2 bioassay distribution.

3 So, we would take, for example --  
4 I think there's 11 years of those blue dots  
5 -- and fit those dots over an 11-year period  
6 to a chronic exposure model. Well, you can  
7 see that there's a lot of variability in  
8 those blue dots. So, that model in itself  
9 has a lot of variability associated with it  
10 that is not considered.

11 So, to narrowly focus just on  
12 that bioassay distribution, I think we sort  
13 of miss the big picture. You need to focus  
14 more, in my opinion, on the chronic exposure  
15 model fit. And that is where we ended up  
16 discussing -- and I think Dr. Melius will  
17 talk a little bit later about maybe we have  
18 been too narrowly focused on some of these  
19 very high-level statistics, and we need to do  
20 something more practical to decide when that  
21 chronic intake function is different for

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1 these different groups. And we will talk  
2 maybe a little bit more later about where we  
3 are heading in that direction.

4 CHAIRMAN MELIUS: Yes, and I  
5 think what is also important here is that, in  
6 developing these coworker models, they are  
7 developed from a sampling of these bioassay  
8 results, which then adds -- I mean, it is not  
9 on everybody that is in the entire cohort  
10 that is being monitored, which introduces  
11 another set of considerations in terms of  
12 statistical sampling, and so forth.

13 So, I don't think it has been  
14 wrong for NIOSH to be focusing on some of  
15 these statistical issues and do that, because  
16 they are important. I think there are some  
17 limitations to it. But there are also other  
18 issues.

19 And I think, as we have  
20 discovered when we talk about sufficient  
21 accuracy, when we talk about surrogate data,

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1 and so forth, in the past. A lot of it comes  
2 down to what are the characteristics at a  
3 particular site, what information do we have  
4 at a site, what monitoring has been done, and  
5 so forth. And often, that is more important  
6 than sort of the more general statistical or  
7 other evaluation one might do at a site or  
8 how one approaches a particular issue of  
9 whether or not one can do dose  
10 reconstruction.

11 So, we need to get sort of a mix  
12 of that and doing it. By focusing on  
13 stratification, we essentially took and we  
14 focused on the most difficult part of, I  
15 think, this issue, which is stratification  
16 and what are very complicated sets of  
17 bioassay data from a sample of workers, and  
18 all sorts of other issues up on top of that.

19 And that is probably the most  
20 complicated issue we are going to encounter  
21 in looking at this. There are many other

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1 issues that may sort of overwhelm or even<sup>67</sup>  
2 obviate what needs to be done in terms of the  
3 statistical.

4 I think we are also sort of  
5 handicapping our statistical analysis in  
6 terms of what sort of guidance we were giving  
7 to them in terms of what we thought was  
8 important or not.

9 Okay. So, these issues actually  
10 took from an SC&A review of sort of sampling  
11 the SC&A 70-page report, or whatever it was  
12 that Arjun and Harry put together, and so  
13 forth, on this. But, to give you some idea  
14 of some of the issues that came up in their  
15 review, and I guess, again, I highlight what  
16 it is as sort of potential issues because  
17 they aren't sort of general issues that apply  
18 to everything. Depending, I think, on the  
19 circumstance, and so forth, they are  
20 important or unimportant issues.

21 I think one of the things we sort

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1 of found, and why I think the meeting we had<sup>68</sup>  
2 was very helpful, was that often there were,  
3 SC&A and ORAU, sort of different assumptions  
4 about what or thinking of different  
5 applications of a particular group of  
6 statistics in thinking about this problem or  
7 evaluating what -- for example, SC&A  
8 evaluating what ORAU was doing, and so forth.  
9 They very often agreed more than you would  
10 get from that report.

11 Those reports I believe have also  
12 been distributed in, again, a longer set of  
13 slides from SC&A, which actually we skipped  
14 most of during our meeting. So, we have  
15 that.

16 But, again, I think these are  
17 mostly pretty obvious issues, when you think  
18 about it, sort of its representativeness,  
19 completeness of the data, what were the  
20 sampling protocols for the different groups.

21 Again, it is applying stratification.

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1                   They coin this term "OPOS," which  
2                   I think it stands for One Person/One Sample,  
3                   but it is really one person/one value for  
4                   that group of samples, and so forth, which we  
5                   spent a fair amount of time discussing. But,  
6                   essentially, you would have a series of  
7                   bioassay results on an individual. You are  
8                   taking the mean of that distribution or that  
9                   set of values, and using that to apply to the  
10                  value for that one person for that particular  
11                  time period or exposure.

12                  And for those of you who are  
13                  familiar with statistics, that raises all  
14                  sorts of statistical issues because you are  
15                  essentially ignoring some variability. But  
16                  in the case of bioassay results, you have a  
17                  very complicated set of sort of biological  
18                  issues on top of that. So, it is not simply  
19                  just taking a series of multiple samples, you  
20                  know, testing one person multiple times at  
21                  the same time. It is over a period of time

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1 with metabolism and distribution of that  
2 material in the body; also, factoring into  
3 what the values are at different times.

4           There are issues about confidence  
5 levels and small sample sizes. What is the  
6 power of your statistics to be able to  
7 determine if you are comparing the  
8 distribution from one group of workers, say,  
9 construction workers, to the larger group of,  
10 say, production workers, well, do you have an  
11 adequate sample size or adequate power in  
12 your statistics to make those distinctions?

13           The NIOSH/ORAU report was  
14 suggesting a sample of 30, what they refer to  
15 as "the rule of 30." Once we understood that  
16 the rule of 30 was sort of a guideline, not  
17 an absolute value, didn't have any  
18 particular, say, power by itself, I think it  
19 helped us in terms of looking at this.

20           But it is just to say that there  
21 are lots of issues that come up, get fairly

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1 complicated fairly quickly, and that there  
2 are not easy answers to.

3 So, we did what all groups do  
4 when they meet, or all committees do. We  
5 punted. So, we said we need more review; we  
6 need more meetings, more work done in order  
7 to address this issue. And then, did also  
8 what all good Committees or Work Groups do.  
9 We farmed out all those issues for work for  
10 other people to do first.

11 So, our next steps on this were  
12 that SC&A will do a review of the One  
13 Person/One Sample issue, and sort of, again,  
14 not a tremendously detailed report, but one  
15 just to list sort of all the issues, because  
16 some of those issues that come up in other  
17 settings in terms of review with other  
18 coworker models that were being applied,  
19 particularly at the Savannah River Site. So,  
20 we thought it would be helpful to have sort  
21 of some discussion of the general issues with

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1 that, rather than just focusing on the issue<sup>72</sup>  
2 with stratification, and so forth.

3 Okay. DCAS agreed to prepare an  
4 outline of the factors for evaluating  
5 coworker datasets, a much more general sort  
6 of outline, set of factors, rather than  
7 focusing on just the stratification issues.

8 As I mentioned earlier, we really  
9 don't have sort of a general set of  
10 guidelines for developing and/or evaluating  
11 coworker datasets. So, again, we found this  
12 helpful in looking at the sufficient accuracy  
13 issue. Let's start with an outline, make  
14 sure everyone agrees on what the major issues  
15 are, and then, we can flesh out that outline,  
16 again, I think with the idea that we would  
17 come up with a set of guidelines for the  
18 evaluation and development of coworker  
19 datasets. When is that appropriate? What  
20 are some of the pitfalls? What are some of  
21 the issues that ought to be addressed in

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1 looking at it? 73

2 Again, I don't think these will  
3 be strict criteria, at least not in many  
4 cases, but a more general ability to give us  
5 some tools and a pattern to follow, for the  
6 Board to follow and SC&A, when we are  
7 reviewing these, but also to be kept in mind  
8 when NIOSH is developing these coworker  
9 models.

10 Probably the trickiest part of  
11 what we are proposing was -- and we weren't  
12 even sure what to call it because there is a  
13 slippery slope here. And one of the problems  
14 that we were having in, well, Tom LaBone was  
15 having in sort of developing the statistics  
16 for looking at stratification as well as for  
17 us evaluating it is, what level of difference  
18 are we trying to detect? If you have two  
19 distributions, two groups of workers, sort of  
20 different distributions, we want to know how  
21 fine a difference we want to try to achieve

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1 with our statistics in terms of telling  
2 they're apart.

3 You know, if it is a very small  
4 difference we are trying to detect, one needs  
5 very large sample sizes for doing that, and  
6 what the variance, and so forth, of those  
7 different distributions are becomes very  
8 important.

9 If one is only trying to look for  
10 very large differences between the groups,  
11 then those considerations, that sample size  
12 gets smaller. You don't need as large,  
13 powerful set of statistics to be able to do  
14 that.

15 And clearly, any sort of  
16 resolution on the way we were approaching it,  
17 without sort of knowing what level of  
18 difference you were trying to detect or  
19 evaluate with your statistical testing was  
20 very futile for the statisticians.

21 Certainly, if we are going to

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1 look at the stratification issue, I think we  
2 need to give everyone some guidance on how we  
3 are trying to look at that. Now, in this  
4 particular case, the differences we might be  
5 trying to detect, what are some of the  
6 implications in terms of looking at  
7 Probability of Causation?

8 So, what we asked DCAS to do was  
9 to look at claims data, to look at -- again,  
10 trying to develop a benchmark or what might  
11 be called an action level that we would use  
12 for these statistical comparisons. What is a  
13 meaningful difference that would have some  
14 effect on dose reconstruction?

15 Again, it wouldn't necessarily be  
16 sort of directly tied to health impact. If  
17 you remember when we started out, or at least  
18 some of us remember when we started out with  
19 this Board and with NIOSH in developing the  
20 regulations, and so forth, we wrestled with  
21 this issue of what's health endangerment?

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1 Well, we are not trying to get health  
2 endangerment, but more in an empirical way  
3 what would be a level that we would be trying  
4 to detect that would be meaningful in terms  
5 of the difference between two distributions  
6 here.

7 So, again, going back to what we  
8 talked about in terms of sufficient accuracy,  
9 I think we know in, for example, the residual  
10 period where exposures tend to be very low,  
11 we tend not to be as diligent in terms of  
12 trying to figure out what different groups of  
13 workers might have been exposed to, or  
14 whatever. We know these exposures are low  
15 and it doesn't make sense to go into a lot of  
16 detail on that.

17 But we really need to have  
18 something for the statisticians to use if we  
19 are going to be able to have any meaningful  
20 use of statistics in terms of doing these  
21 determinations.

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1                   When I was looking at the  
2 original SC&A and ORAU reports on this issue,  
3 I mean, every time I would go through, I  
4 could think of examples where I would agree  
5 with SC&A or agree with ORAU and disagree,  
6 because it really depends on the  
7 circumstances you are looking at. How much  
8 sampling data is available to look at, and so  
9 forth? So, if we are going to use the  
10 statistics, we need a more powerful way of  
11 doing that.

12                   So, since that meeting, Jim has  
13 come up with a proposed benchmark and got  
14 comments back from the Work Group. And I  
15 will let him explain that. That has been  
16 handed out to you. It was a work-in-progress  
17 at the time I put these slides together late  
18 last week. So, I wasn't sure if whether we  
19 would actually include it or not.

20                   But go ahead, Jim.

21                   DR. NETON: Okay. Thank you, Dr.

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1 Melius. That was a very good introduction  
2 into what we are trying to accomplish here.

3 So, you see on the slide that we  
4 propose to use the claimant data. We have  
5 over 40,000 claims, and we have done dose  
6 reconstructions on most of them. So, we have  
7 a good database of information from which to  
8 make a decision what incremental dose will  
9 result in a change in the PoC value and, more  
10 specifically, a change in the PoC value from  
11 non-compensable to compensable. You know,  
12 how much leeway is there in these claims?

13 Well, we went through and looked  
14 at all the claims we have processed thus far.

15 And interestingly, there were only 167  
16 claims out of 40,000 that had a Probability  
17 of Causation between 45 and 50 percent.  
18 Well, had a single cancer with a Probability  
19 of Causation between 45 and 50 percent. That  
20 surprised me.

21 And we proposed to only look at

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1 claims between 45 and 50 because we were  
2 going to originally just take 100-millirem  
3 dose and add it to each of those cases of  
4 single cancers and see what happens. You  
5 know, where does that take the PoC value?  
6 Does it move all of them over 50 percent?  
7 Maybe one? Maybe none? Who knows?

8 And so, we can do some pretty  
9 detailed statistical testing when we run  
10 through all these cases. It is going to be  
11 an interesting process to go through.

12 We are going to, of course, run  
13 these like we do -- any case over 45 percent  
14 is automatically run 10,000 iterations of  
15 Monte Carlo 30 times. So, it is going to  
16 take a lot of computer horsepower. We will  
17 run these at night to sample these, and then,  
18 we will compare the distributions of the PoC  
19 values.

20 But this will at least give us a  
21 start as to what is a benchmark. It doesn't

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1 mean that is the end of it, but we are going  
2 to start with 100 millirem and we are going  
3 to try to maximize the effects on PoC by  
4 adding the dose. And we are going to start  
5 with using external because that is the  
6 simplest place to deal with. We are going to  
7 add a constant external dose, probably at the  
8 beginning of employment, which will maximize  
9 the effect on PoC, except for leukemias we  
10 have got to modify a little bit because there  
11 is a different latency adjustment for  
12 leukemias.

13 But, nonetheless, that is what we  
14 are going to do. And hopefully, we will be  
15 able to report out to the Working Group and  
16 the Board the results not too far off.

17 CHAIRMAN MELIUS: Good. Thanks,  
18 Jim.

19 And so, Jim has already done this  
20 bullet, looking at external dose coworker  
21 models. What we, then, decide is, when we

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1 get this developed, and so forth, we will<sup>81</sup>  
2 then turn our focus back, first, to the  
3 external dose coworker models because these  
4 are much simpler to look at. They don't have  
5 the complications of bioassay. They have  
6 lots of data, usually big sample sizes, and  
7 so forth, at least bigger than often usually  
8 for a lot of the bioassay data.

9 And I think we can sort of look  
10 at these both from how the statistical  
11 comparisons will be done, the stratification  
12 issue, as well as some of the other sort of  
13 more general guideline issues that DCAS is  
14 working on in terms of outline.

15 And then, if we can feel we are  
16 successful with that issue and that is  
17 helpful, then we will go back and look at  
18 internal dose models and come up from there.

19 So, that is sort of where we  
20 stand now. I have one more slide I want to  
21 show you, not that this is even relevant to

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1 what we are talking about. It was a slide<sup>81</sup><sub>2</sub>  
2 stole, I think from DCAS, was it?

3 This is just the prettiest  
4 statistical testing I have seen or depiction  
5 of statistical testing. I wish I had had  
6 this back when I was taking statistics a long  
7 time ago because it would have kept me much  
8 more interested. Whether they are galaxies,  
9 and so forth, but the black dots in or the  
10 black dots out, that's your statistical test.

11 I have no idea. I am sure I learned about  
12 the Monte Carlo Permutation Test many, many  
13 years ago, but probably very quickly and not  
14 in much detail. Again, if I had had these  
15 kind of computer graphics, who knows? I  
16 might have ended up a statistician.

17 So, I thought I would share that.

18 I gave DCAS the prize for the prettiest  
19 slide that we have seen. I thought we should  
20 share it with the whole Board.

21 So, on that, let me end. I don't

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1 know if other Work Group Members have  
2 comments they would like to make about what  
3 went on.

4 Well, first, the Work Group  
5 Members. So, Gen or -- Paul couldn't be  
6 there at the meeting. I want to give them  
7 time to weigh-in. Then, we will do Wanda and  
8 others.

9 Go ahead, Gen.

10 MEMBER ROESSLER: First of all, I  
11 think you did a very good job of summarizing  
12 a very complicated subject and meeting. And  
13 I like your -- that OPOS thing is a little  
14 bit confusing when you first hear it because  
15 we are used to thinking of a sample as one  
16 bioassay contribution, or whatever. So,  
17 calling it One Person/One Value is good.

18 I think it was good, and I think  
19 we are looking forward to seeing what happens  
20 with this first step that Jim is doing.

21 CHAIRMAN MELIUS: Yes, right,

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1 right. Yes. 84

2 MEMBER ROESSLER: Jim Neton.

3 CHAIRMAN MELIUS: Yes, yes. The  
4 OPOS, I should add, was probably about a two-  
5 hour conversation/discussion during our  
6 meeting. So, it is summarizing-down.

7 Paul, Josie, anybody else have a  
8 comment? Paul, do you want to say anything?

9 Gen did make me promise to try to  
10 summarize the meeting and send a note to  
11 Paul, and thanked me greatly when I agreed to  
12 do it.

13 MEMBER ZIEMER: Well, actually,  
14 the transcript of the meeting I think has  
15 been distributed to everyone.

16 CHAIRMAN MELIUS: Yes.

17 MEMBER ZIEMER: And I just want  
18 you to know, Dr. Melius, that I have read the  
19 transcript. So, I feel like I attended the  
20 meeting.

21 CHAIRMAN MELIUS: Okay, good.

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1 Good. 85

2 MEMBER ZIEMER: It was, actually,  
3 rather tedious.

4 CHAIRMAN MELIUS: Yes.

5 MEMBER ZIEMER: But I like the  
6 proposal that Jim made, and I have told Jim  
7 this. This is a very interesting approach to  
8 trying to figure out what incremental dose  
9 will kick things up to another level.

10 CHAIRMAN MELIUS: Yes.

11 MEMBER ZIEMER: You know, whether  
12 it is 100 millirem or 500, or whatever it  
13 might be, but this will be a very interesting  
14 exercise, and I am looking forward to the  
15 outcome of that.

16 CHAIRMAN MELIUS: Okay. Thank  
17 you, Paul. Thank you for wading through that  
18 transcript. You are braver than I have been.

19 But, again, I was at the meeting, so I have  
20 an excuse.

21 MEMBER ZIEMER: I have already

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1 made corrections in it. I should have given<sup>86</sup>  
2 them to you, so you can certify it.

3 CHAIRMAN MELIUS: Wanda?

4 MEMBER MUNN: I'm glad somebody  
5 read through that transcript. I started and  
6 got about maybe 1/10th, 1/20th of the way  
7 through and thought I can't handle all of  
8 this. I will just have to talk about it  
9 instead of reading it.

10 And I am delighted to know that  
11 you consider a Monte Carlo Permutation Test  
12 photograph as being the nicest piece of art  
13 you have seen in a while. I don't know where  
14 you find your art, but it is expressive;  
15 there is no question about that.

16 CHAIRMAN MELIUS: As applied to  
17 any of our meetings, I should say.

18 MEMBER MUNN: I am really pleased  
19 to see this happening, and I am very pleased  
20 to see 1 millirem as being the base place to  
21 start. Pardon me. A hundred millirem.

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1                   But it is a shame that we didn't  
2 do this precise thing eight years ago. This  
3 is the question that I recall having brought  
4 to the Board many times: why are we spending  
5 so much time looking at this particular  
6 aspect of exposure in some site when nobody  
7 has identified this as being significant to  
8 the end result?

9                   And better late than never, I am  
10 glad to see it happening, and it is going to  
11 be an interesting study. Thanks for the good  
12 report.

13                   CHAIRMAN MELIUS:    Okay.    Thank  
14 you.    Others?

15                   I will say I have a son who  
16 teaches art history, and I see lots of other  
17 art.    I have got to correct that for the  
18 record.    I'll be in trouble.

19                   MEMBER MUNN:    Perhaps you should  
20 show him this.

21                   CHAIRMAN MELIUS:    Yes.

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1 Okay. Dave? 88

2 MEMBER KOTELCHUCK: Yes, Dave  
3 Kotelchuck.

4 First, I agree it was very  
5 helpful, the presentation was very helpful.  
6 I am not clear whether part of this is the  
7 discussion we've been having and part of this  
8 is that I have been learning as we go along,  
9 so that I could see much more, I could  
10 understand your presentation this time much  
11 better than last time, even though on the  
12 whole the presentation and the PowerPoints  
13 were the same.

14 But I have a question. Could  
15 someone explain to me how the progress on the  
16 coworker data, which is very good, how --

17 (Cell phone rings.)

18 Of all things, I cannot believe  
19 it. How often do I get a cell phone call in  
20 the middle of a meeting?

21 You will pardon me. Let me go

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1 ahead with my question. 89

2 Could someone please explain to  
3 me how the progress we are making on the  
4 coworker data will help us understand how to  
5 distinguish between strata? That seems like  
6 a separate question. How will the coworker  
7 data progress help us with respect to  
8 distinguishing between different strata and  
9 assessing the differences between strata?

10 CHAIRMAN MELIUS: Well, if you go  
11 through all the reports that have been  
12 developed as part of this, Tom LaBone at ORAU  
13 did a fairly-detailed report proposing both a  
14 parametric and a non-parametric statistical  
15 testing for distinguishing whether  
16 stratification was appropriate or  
17 inappropriate in a particular dataset.

18 SC&A raised some very legitimate  
19 concerns about that. But I think what we  
20 came down to is, without knowing what  
21 difference between the strata we were trying

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1 to detect, what was a meaningful difference<sup>90</sup>  
2 we could not come to any agreement on what  
3 was the appropriate set of statistical  
4 testing that one would use.

5 Now it is much more complicated  
6 than that in other ways because there are  
7 other considerations, One Person/One Value or  
8 One Sample, but that was how this evolved.

9 MEMBER KOTELCHUCK: Yes, that's  
10 helpful. That clarifies it for me anyway.

11 CHAIRMAN MELIUS: Yes. And so,  
12 then, it ties back to what is sufficient  
13 accuracy? Do we need stratification or not.

14 We have wrestled with this for a long time.  
15 We learn as we go along.

16 I mean, the statistic that Jim  
17 Neton gave us, that of all the -- what? --  
18 40,000 dose reconstructions, there's 145,  
19 between 45 and 50 for a single cancer. So, I  
20 mean, we are dealing with sort of very finite  
21 numbers of examples.

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1                   And you get into different sites<sup>91</sup>

2           And so, there's lots of complications with  
3           this. We, as a Board and NIOSH, we sort of  
4           learned as we go along, trying to figure out  
5           what is important, what is not important, and  
6           how do we evaluate it.

7                   Dr. Lemen?

8                   MEMBER LEMEN: I have a question.

9           On the presentation where we talk about the  
10          One Person/One Value, and you say or the  
11          slide, not your slide but Jim's slide that is  
12          in the presentation we got, says that they  
13          use the maximum-possible mean. And then, he  
14          gives there examples.

15          My question is, even if you use  
16          the maximum-possible mean, doesn't that  
17          shortchange some individuals because, when  
18          you use a mean, there is always going to be  
19          higher numbers, putting some people at a  
20          higher risk than the mean would represent?  
21          Am I making myself clear? Do you understand

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1 what I am saying? 92

2 DR. NETON: I think I understand  
3 what you are saying, but it comes down to the  
4 biology behind it. What we are trying to  
5 accomplish using the mean value -- let's put  
6 the maximum-possible mean aside for right now  
7 -- but the mean value is really an attempt to  
8 be, and I hate to use this word but it is  
9 probably the best word, a surrogate for the  
10 intake that the person experienced in that  
11 particular year.

12 So, if you have multiple bioassay  
13 samples throughout the year, and you average  
14 those, you will essentially end up with the  
15 average urinary excretion of that person  
16 throughout the year. You know, if you took  
17 the maximum possible value that the person  
18 excreted in that year, you are going to bias  
19 his excretion very high.

20 The maximum-possible mean is a  
21 construct to account for censored data,

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1 essentially. If you have data that are  
2 reported as less than five or less than two  
3 or zero, then you really don't know what the  
4 value is, and we have proposed to use the  
5 five. We use the value as it was. If it was  
6 less than five, we use five; less than ten,  
7 we use ten. And that would be claimant-  
8 favorable in that sense because, then, we  
9 would maximize the average urinary excretion  
10 value for that person for the year.

11 I'm not sure I answered your  
12 question, but that's --

13 MEMBER LEMEN: I have to think  
14 about a little bit.

15 DR. NETON: Yes.

16 CHAIRMAN MELIUS: Well, another  
17 way of thinking about it is -- this is my 30-  
18 year-ago statistics -- but is that, normally,  
19 you are concerned about this multiple sample  
20 issue because you are looking at a single  
21 value; you are testing a person multiple

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1 times. You know, your blood pressure many  
2 times or blood sugar, or whatever, or some  
3 other parameter like that. And you are  
4 making some assumption that those are all  
5 independent samples, right.

6 In this case, in the case of the  
7 bioassay data, it is more complicated because  
8 they are taken over a period of time, and  
9 there is a time variable in terms of how that  
10 material is metabolized in the body and  
11 reflected in whatever bioassay you are doing.

12 I mean, the old adage would be  
13 that, if you had multiple samples from any  
14 individual, there is a variability of that  
15 and you would be ignoring that variability,  
16 and that's why you don't do it. And there's  
17 a number of statistical tests that you can do  
18 that take into account that variability in  
19 looking at the overall group.

20 In this case, it is more  
21 complicated by the body's metabolism and the

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1 time variable that is in there. Actually,<sup>5</sup>  
2 the two examples I gave, blood pressure and  
3 blood sugar, also have a diurnal variation  
4 and other factors that affect them over time,  
5 too. So, there is some difference there.

6 What the right way of doing it  
7 is, I don't think we, as a Work Group, have  
8 really determined it. But, if we don't do  
9 that approach, I think there's some  
10 significant limitations to making any  
11 comparison. So, I think we have to look at  
12 it seriously. And I think there are probably  
13 many cases where we can, because those aren't  
14 going to make huge differences.

15 It is not that we are ignoring a  
16 high value by taking the mean. We are trying  
17 to have one sample, one number that  
18 represents that distribution, which is  
19 probably fair in the sense that distribution  
20 isn't made up of a bunch of independent  
21 samples.

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1                   Now there is also a testing  
2                   variability. We can go into lots of levels  
3                   of details for that.

4                   So, I don't know if that helps.

5                   MEMBER LEMEN: It helps and also  
6                   explains to me that you must have listened to  
7                   Saul Rosenberg better than I did when we took  
8                   statistics.

9                   CHAIRMAN MELIUS: Yes. Well, I  
10                  had some reminders recently from sitting  
11                  through -- we had some statistical lessons  
12                  from our last Work Group meeting from the  
13                  statisticians.

14                  Welcome, Arjun.

15                  MEMBER LEMEN: Thank you. I  
16                  appreciate it.

17                  CHAIRMAN MELIUS: Anybody else  
18                  have questions?

19                  MEMBER CLAWSON: I do.

20                  CHAIRMAN MELIUS: Okay. Yes.

21                  MEMBER CLAWSON: And this is very

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1 good, and I understand where it is at, but  
2 doesn't this still come down to the  
3 information that is originally put into it?  
4 Doesn't put more emphasis now of justifying  
5 the records that we do find? I mean, that  
6 they are actually credible.

7 CHAIRMAN MELIUS: Oh, yes. No,  
8 the other, you know, how representative they  
9 are, what the sampling or evaluation was, was  
10 it just everybody that was exposed, just  
11 those highly exposed, I mean, there are all  
12 sorts of those practical issues. You know,  
13 who was tested, and so forth? What happened  
14 to the source terms over time? All those  
15 issues are still there and may very well  
16 outweigh the statistical considerations.

17 However, there are situations  
18 where this has come up, and we have had  
19 discussion. Now, an example, in Fernald,  
20 basically, we did the -- your computer went  
21 crazy again. Sorry.

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1                   In Fernald, it sort of came down<sup>98</sup>  
2                   to some practical considerations in terms of  
3                   how the sampling was done or what wasn't done  
4                   for construction versus production workers.

5                   So, there is no doubt that is  
6                   going to be sort of the outline that DCAS is  
7                   developing, will be that whole list of  
8                   practical issues. But, again, I still think  
9                   we need to look at these statistical issues  
10                  and address them to the extent that we can.

11                  MEMBER CLAWSON: Thank you.

12                  CHAIRMAN MELIUS: Dr. Lemen? And  
13                  then, Dr. Anderson.

14                  MEMBER LEMEN: I had one more  
15                  question, and I don't know if this is the  
16                  appropriate time to ask it or not. But in  
17                  your presentation you talked about, or I  
18                  guess Jim talked about the difference between  
19                  occupational duties such as a construction  
20                  worker versus an operator. I am still  
21                  confused about how you adjust for that. If

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1 you have all of your datasets from, say, the  
2 construction worker versus, you know, a much  
3 smaller dataset from the operators, how do  
4 you adjust for that or do you adjust for  
5 that?

6 DR. NETON: Well, that is sort of  
7 the crux of the issue. I mean, Report 53  
8 that we are evaluating right now was an  
9 attempt to do that. Very often, we don't  
10 have that ability, but at certain sites like  
11 Savannah River you have a lot of data, and  
12 that is when we proposed this Monte Carlo  
13 Permutation Test and this non-parametric test  
14 to sort of tease that out.

15 What happened, though, was then  
16 we ended up with statistical tests with  
17 confidence intervals. And we said, well, we  
18 tested a few and we said, well, we see no  
19 significant difference.

20 Well, then, what happened was,  
21 well, wait a minute. You would have to have

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1 a huge difference to see any statistically<sup>100</sup>  
2 significant difference. So, where do you  
3 take that?

4 And so, this is where we ended up  
5 with what we called, at least in my mind,  
6 sort of a practical difference, practical  
7 significance, practical difference. And that  
8 will, hopefully, answer some of these  
9 questions about how different do they have to  
10 be in order for you to start making  
11 stratification.

12 MEMBER LEMEN: So, you think the  
13 Monte Carlo method actually adjusts for that?

14 DR. NETON: The Monte Carlo  
15 method is a test, a statistical test, to  
16 determine if you can see a statistical  
17 difference between two populations.

18 MEMBER LEMEN: Right.

19 DR. NETON: But the problem is,  
20 as you probably are going to say, some of the  
21 samples are very different sizes. You don't

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1 have very good statistical power, and that <sup>101</sup>

2 essentially was --

3 MEMBER LEMEN: That is my  
4 concern.

5 DR. NETON: Yes, that was the  
6 discussion topic of our meeting primarily --

7 MEMBER LEMEN: Yes.

8 DR. NETON: -- was to try to  
9 figure out what do you do then.

10 MEMBER LEMEN: Yes, and you don't  
11 have a solution to that?

12 DR. NETON: No, we don't.

13 MEMBER LEMEN: Okay.

14 DR. NETON: If the answer is you  
15 have to have a factor-of-five difference in  
16 the geometric mean to say there's a  
17 statistical difference, what does that mean,  
18 you know? I mean, all you can say is I can't  
19 see a difference. Well, it would have to be  
20 huge.

21 So, now we can go back and at

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1 least maybe with some of these analyses <sup>101</sup>~~102~~  
2 Probability of Causation say, well, how much  
3 dose difference do you need to have, and  
4 then, start maybe trying to figure that out  
5 from that perspective.

6 MEMBER LEMEN: Thank you.

7 CHAIRMAN MELIUS: Yes, and I  
8 think if you go back to the ORAU, the 0053  
9 Report, the SC&A review, the CliffsNotes on  
10 those which are the presentations that Jim  
11 did, and SC&A had at our last meeting, if you  
12 don't want to read the whole report, but I  
13 think they sort of explain what the intent is  
14 and how it is being applied, and some of the  
15 potential shortcomings. We are giving you  
16 the real cramming before the final exam, you  
17 know, five minutes before the exam, a summary  
18 of all this.

19 MEMBER LEMEN: So, you are saying  
20 we have to come up with a solution in the  
21 exam?

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1                   CHAIRMAN MELIUS: Yes. Well, <sup>it</sup>~~it~~<sub>103</sub>  
2 all comes back to the Board. So, one way or  
3 the other, we are going to have to make these  
4 determinations.

5                   And coworker models are very  
6 important in this program. We have not  
7 really wrestled with them, and thought about  
8 them a lot. We do them one at a time and  
9 accept them, and, generally, sometimes reject  
10 them. And I think that has major  
11 implications because they are a fundamental  
12 part of individual dose reconstruction.

13                   Really it is important and we  
14 need to spend time and effort doing that.  
15 And I think that is what we are proposing to  
16 do.

17                   Henry?

18                   MEMBER ANDERSON: Yes, do we have  
19 a sense of in what proportion of the dose  
20 reconstructions has a coworker model been  
21 applied on the current set of cases?

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1 DR. NETON: I can't tell you  
2 exactly. I can tell you that there has been  
3 at least a dozen coworker models, both  
4 external and internal --

5 MEMBER ANDERSON: Yes.

6 DR. NETON: -- prepared at some  
7 of the larger sites.

8 Now, subsequent to those coworker  
9 models being issued, many of those sites have  
10 become SEC sites. So, that somewhat negates  
11 the importance of those coworker models, but  
12 they still would be used for the non-  
13 presumptive cancers.

14 MEMBER ANDERSON: I mean, my  
15 second question was going to be, if you don't  
16 accept a coworker model at a site, would  
17 that, if it is part of an SEC petition, would  
18 that be sufficient to say --

19 DR. NETON: Oh, yes. We have  
20 added a site. I think Nevada Test Site is a  
21 good example where --

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1 MEMBER ANDERSON: Yes. Well<sup>1</sup><sub>105</sub>

2 that is the only one I remember.

3 DR. NETON: Yes, well, that is  
4 the only one that comes to mind right now.

5 MEMBER ANDERSON: Yes, okay.

6 DR. NETON: But that was a case  
7 where they didn't have, as far as we could  
8 determine, a routine monitoring program  
9 before a certain date. It was incident-  
10 driven, which we had decided was not useful  
11 for developing a chronic coworker model.

12 MEMBER ANDERSON: Yes.

13 DR. NETON: That was one of the  
14 bases for that site being added.

15 MEMBER ANDERSON: Yes. Thanks.

16 CHAIRMAN MELIUS: But maybe a  
17 better way, my response to you was to say  
18 that they affect a large number of claims --

19 MEMBER ANDERSON: Yes.

20 CHAIRMAN MELIUS: -- more than  
21 sites. But they are the bigger sites where

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1 there is more data and there is more ability<sup>106</sup>  
2 to put these together.

3 Okay. Any other questions,  
4 comments?

5 (No response.)

6 Arjun, you were late. So, we  
7 have gone through. That's okay.

8 DR. MAKHIJANI: Sorry about that.

9 CHAIRMAN MELIUS: No, we were  
10 early, actually.

11 So, okay, why don't we, then,  
12 take a break until 11 o'clock and we will be  
13 back here? And by that time, Jim will have  
14 -- excuse me -- it is Stu's turn, right? Stu  
15 will fix the computer.

16 (Whereupon, the above-entitled  
17 matter went off the record at 10:08 a.m. and  
18 resumed at 11:02 a.m.)

19 CHAIRMAN MELIUS: We are now  
20 reconvening this meeting of the Board.

21 And our first subject is an SEC

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1 petition, Sandia National Laboratory, the  
2 Livermore Branch, whatever you call it. So,  
3 Sam Glover from DCAS will be presenting.

4 DR. GLOVER: Thank you, Dr.  
5 Melius.

6 CHAIRMAN MELIUS: Time out a  
7 second.

8 DR. GLOVER: We will go ahead and  
9 let everybody get comfortable.

10 CHAIRMAN MELIUS: Yes, yes,  
11 that's good.

12 DR. GLOVER: Okay. So, we are  
13 here today to talk about Sandia National  
14 Laboratories-Livermore. I think this is a  
15 very similar set of circumstances to what you  
16 heard previously about Sandia National Labs-  
17 Albuquerque. Many of the records, practices,  
18 and similar activities, we are going to see a  
19 very similar history and outcome.

20 So, with that said, let's talk a  
21 little bit about Sandia. It is a little bit

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1 of background. 108

2 NIOSH determined that we were  
3 unable to complete dose reconstruction for a  
4 worker Class due to lack of sufficient  
5 dosimetry-related information at Sandia  
6 National Laboratories-Livermore, SNL-L. And  
7 on August 14th, we notified a claimant and  
8 provided a copy of the Special Exposure  
9 Cohort Petition or information.

10 They, then, obviously, sent that  
11 back on August 22nd, and we are proceeding  
12 with an 83.14. We issued an Evaluation  
13 Report on October the 7th.

14 All right. So, the evaluated  
15 Class is the Department of Energy, its  
16 predecessor agencies, and/or contractors and  
17 subcontractors who worked at any area of  
18 Sandia National Laboratories-Livermore in  
19 Livermore, California, and the date was  
20 October 1, 1957 through December 31st, 1994.

21 A little more background. So,

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1 early in 1956, Sandia National Laboratories,<sup>109</sup>  
2 Albuquerque, established a Livermore branch  
3 to provide direct support to the Lawrence  
4 Livermore National Lab, and they were  
5 originally located on the Livermore site.

6 At the end of 1956, they decided  
7 that they needed to make plans for a much  
8 larger support effort. And so, they wanted a  
9 site adjacent to Livermore which would employ  
10 around a thousand workers. And so, they  
11 began to develop a site. And by October  
12 1957, the facility opened.

13 In 1958, the facility had  
14 employed 800 workers, and they were working  
15 to develop the W38 warhead for the Titan I  
16 and Atlas missiles.

17 Today it consists of about 70  
18 buildings on 410 acres adjacent to Livermore.

19 And the typical number of workers is around  
20 1,000 to 1,100 over the timeframe. It has  
21 been continuously operated by the Sandia

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1 Corporation. 110

2 Just a quick map of the facility.

3 Immediately to the north, that is East  
4 Avenue. Right across that, you would be on  
5 the Livermore site.

6 So, the primary mission of Sandia  
7 National Lab-Livermore, included the  
8 engineering or weaponization of the nuclear  
9 physics package designed by Livermore,  
10 Lawrence Livermore National Lab, and  
11 principally, the production of parts and  
12 final weapons was accomplished at other  
13 facilities.

14 And so, what does it mean?  
15 Weaponization gets thrown out there. So, I  
16 threw a few bullets in here to kind of  
17 explain what that means.

18 It is to design and test the non-  
19 nuclear components of a nuclear weapon  
20 package. In their terms, they ensure that  
21 the other 95 percent of the weapons parts

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1 work perfectly at every point of contact with  
2 the delivery systems.

3 I think recently there was a  
4 discussion at North Carolina that there may  
5 have been a failure, that they had a failure  
6 of the system, and all these failsafes worked  
7 to prevent that weapon from going off. So,  
8 we should thank Sandia for making sure that  
9 those things work properly.

10 Weaponization includes the  
11 arming, fusing, and firing systems, the  
12 neutron generators, gas transfer systems, and  
13 surety systems.

14 SNL-Livermore support for the  
15 Livermore National Lab later expanded to  
16 include effects of test analyses and  
17 telemetry for the Lawrence Livermore National  
18 Lab sites, tests, and from 1959 to the early  
19 1970s, they participated in the evaluation of  
20 the Plowshare Program of nuclear detonations.

21 We are going to walk through some

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1 of the facilities. And some of the core<sup>112</sup>  
2 missions included the weapons facilities  
3 complex, where they test/repair neutron  
4 detectors, wet machining of uranium,  
5 radiography of weapons components, ion beam  
6 analysis of materials, tritium storage  
7 studies and similar type analyses, micro- and  
8 nanotechnologies laboratory where they  
9 conducted radiography, centrifuge and  
10 explosive test facilities.

11 There is the former Tritium  
12 Research Laboratory, now known as the  
13 Chemical and Radiological Detection Lab, an  
14 explosive environmental test complex, where  
15 they looked at the environmental testing of  
16 mock-up weapons and components, and  
17 additional classified activities involving  
18 thorium and highly-enriched uranium.

19 The proximity of Lawrence  
20 Livermore National Lab to SNL-Livermore  
21 allowed workers to essentially what was

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1       termed "wheel test devices across the  
2       street".       So, it provided a lot of  
3       flexibility and ability to interact directly  
4       with the Lawrence Livermore National  
5       Laboratory.

6               So, we are now at some of the  
7       standard source of available information. We  
8       have been doing this for over six years,  
9       looking at Livermore, Sandia National Lab-  
10      Livermore as well as Sandia National Lab-  
11      Albuquerque, because, as you will see, the  
12      records and how things have been done, they  
13      are tied pretty much directly together.

14              So, Oak Ridge, the associated  
15      universities, you know, we obviously have the  
16      Technical Basis Documents for the Sandia  
17      National Lab site, the TIBs and Procedures.  
18      We conducted a number of interviews of former  
19      workers or former employees as well as the  
20      SC&A, they also conducted interviews.

21              We looked at existing claimant

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1 files, the NIOSH Site Research Database where<sup>114</sup>  
2 we have more than 1,000 documents. We had  
3 certainly many data captures to the Sandia  
4 National Lab-Livermore. And because the  
5 records are also stored at Albuquerque, we  
6 also went to the Albuquerque site.

7 We captured records wherever  
8 across the DOE complex, so not just at those  
9 facilities, but as we found other related  
10 records across the complex, we got those, and  
11 looked at DOE OpenNet, as well as other  
12 similar sources.

13 Just a little bit on the previous  
14 dose reconstructions. We have 132 cases  
15 submitted for dose reconstruction, 15 of  
16 those completed with a Probability of  
17 Causation above 50 percent and 100 at less  
18 than 50 percent. We have 123 of those with  
19 employment during the period being evaluated,  
20 105 dose reconstructions completed during  
21 that period, and 25 of those we found

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1 internal dosimetry and 112 with external. 115

2 So, health physics was the  
3 responsibility of Sandia National Lab-  
4 Livermore until about this 1989-to-1994  
5 timeframe. And it is timeframe because at  
6 that point they began -- it was an  
7 implementation that took some time to happen.

8 So, they didn't all of a sudden just assume  
9 control. It took several years for that  
10 implementation to happen.

11 NIOSH located minimal  
12 documentation of the practices and  
13 requirements during the evaluation period.  
14 In general, very little information regarding  
15 the programs are available.

16 The location of records and the  
17 complexity of that relationship also plays  
18 into this. Documentation was kept at Sandia  
19 National Lab-Livermore, and we have seen  
20 records transferred to the Albuquerque  
21 facilities, I'll use the term ad hoc, over

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1 the past few decades. They are not really<sup>116</sup>  
2 described. We don't know when the records --  
3 we find records at Albuquerque. We find some  
4 records at Livermore. They have no real  
5 record of those transfers and how they have  
6 happened. They will find records, even  
7 within the last few months, and those were  
8 transferred and there's no documentation  
9 about that, either. So, as I said, ad hoc is  
10 the term that I have used.

11 I wouldn't say that it is a broad  
12 spectrum of external. I would just say it is  
13 perhaps as a Hanford or a facility, a big  
14 production site, but they certainly have a  
15 lot of different things going on, a lot of  
16 different source terms. There was certainly  
17 radiography, X-ray diffraction materials  
18 characterization. They did certainly work  
19 with thorium and uranium, both depleted as  
20 well other enrichments. They had neutron  
21 exposures from radiography sources and tests,

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1 repair and research of neutron and X-ray<sup>117</sup>  
2 detectors, and they had also exposure while  
3 working the storage and packaging of waste  
4 materials.

5 We have missed -- unfortunately,  
6 the slide caption should be "Potential  
7 internal radiological exposures." Materials  
8 and activities included depleted uranium and  
9 alloys from machining. And these often were  
10 surrogates for the test devices that were  
11 fabricated onsite, and they did approximately  
12 50 to 100 specimens per month, which is why  
13 they, instead of just relying on Y-12 or a  
14 different facility, they did that onsite.  
15 They also had highly-enriched uranium,  
16 thorium, preparation of samples for tests.  
17 And the TRL had gram quantities of tritium  
18 during this period when it was an active  
19 facility.

20 A lot of this comes down to  
21 records. And I want to say our people at

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1 Sandia National Lab-Albuquerque really ~~are~~<sup>are</sup>  
2 trying to do a good job. They have had a lot  
3 of difficulty trying to do their job, which  
4 is to provide information. They are one of  
5 the facilities that is often shown to be  
6 behind on providing records for claims. And  
7 it is really not an effort that they are not  
8 trying very hard; it is just that the records  
9 are not in a searchable mode. And so, I have  
10 watched them try to do this where a guy  
11 remembers 10 names, and he, then, looks  
12 through 100,000 pages of stuff, remembering  
13 10 names, and extracts these records. It is  
14 not simple. It is a very difficult process.

15 And just the history of how the  
16 site and the practices evolved. These  
17 practices, as I said, it is very similar to  
18 what Sandia-Albuquerque had, because they  
19 have rolled over those records down to there,  
20 and they have lost the concepts of where and  
21 how much they have transferred. And they

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1 didn't run the facilities at the time. ~~§9~~ 119

2 those people are no longer there.

3 So, to speak to the slide, some  
4 health physics records have been transferred  
5 from Sandia National Labs-Livermore down to  
6 what I will call the mountains in California.

7 Others have been transferred to Albuquerque.

8 Others still stay onsite. And the fractions  
9 of those is sort of unknown.

10 They provide very little to no  
11 information in selecting records for review.

12 Until 1992 or 1994, there was, essentially,  
13 not a records management practice that you  
14 could have a description and, then, be able  
15 to pull records back.

16 Available records are stored in  
17 both California and New Mexico. Little or no  
18 documentation of the transfers.

19 So, the availability of data  
20 remains a significant concern for the Sandia  
21 sites, also at Sandia-Albuquerque. And you

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1 will remember that in November of 2009 ~~we~~<sup>we</sup> 120  
2 notified DOE about incomplete case responses  
3 for both Sandia sites, particularly with  
4 regards to internal dosimetry. Previously,  
5 we have actually gotten cases that only had  
6 data that started in 1989. They responded,  
7 then, to try to fix that, but we still found  
8 additional data that we picked up in our data  
9 captures that they weren't providing. We  
10 certainly had no idea what fraction of that  
11 may have represented the total decision. We  
12 have captured records in boxes, sometimes not  
13 just expecting to find that kind of  
14 information in that box.

15 January of 2010, we again  
16 requested SNL records of open cases. The  
17 backlog of cases at the site shows the  
18 difficulty faced by the site to obtain these  
19 records. DOE and Sandia National Lab  
20 continue its efforts to improve the record  
21 searches and requests for claimant-monitoring

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1 data. They are working very hard. They are  
2 volunteering their time, coming on the  
3 weekends to try to make up the backlog. But  
4 it is a very difficult operation.

5 NIOSH continues to provide  
6 feedback to both Sandia National Lab-  
7 Livermore and DOE and Sandia National Lab-  
8 Albuquerque about the availability of the  
9 complete monitoring record. And we have  
10 provided all the records that we have  
11 captured to try to help them understand their  
12 record set.

13 Unlike many DOE facilities, the  
14 Sandia National Laboratory did not report the  
15 number of bioassay samples analyzed. So, we  
16 don't know what our target is. We don't know  
17 what the total value should be.

18 Based on interviews, it is just  
19 thought to be relatively-small. We have  
20 certainly obtained copies of some of the  
21 bioassay records as part of our data capture

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1 and claim requests. However, as with Sandia<sup>122</sup>  
2 National Lab-Albuquerque, it is clear that  
3 Sandia is not able to produce all the  
4 records, nor are they sure how much should be  
5 there.

6 For external, we continue to  
7 identify numerous cases where the data was  
8 not provided by the site, similar to  
9 internal. We have provided, as I said, all  
10 the copies of data that were retrieved.  
11 However, we conclude that we have not  
12 captured all the data, and we also understand  
13 that the source term doesn't overcome the  
14 loss of personal monitoring data. We don't  
15 have that as well because those were lost to  
16 the record storage practices. So, we are  
17 unable to come to grips with all the source  
18 terms and what they may be and all the  
19 practices that have been undergone over the  
20 life of the site.

21 So, for dose reconstruction

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1 feasibility, we conclude that we cannot bound<sup>123</sup>  
2 internal or external doses from October 1,  
3 1957 through December 31st, 1994 due to the  
4 lack of the availability of monitoring data,  
5 process information, and monitoring program  
6 information, are insufficient to support  
7 estimation of the potential internal or  
8 external exposures to radiation and  
9 radioactive materials.

10 Lack of internal monitoring  
11 program documentation and source term  
12 information data for the evaluated period.  
13 The availability of records suggests that  
14 only some workers participated in an internal  
15 dosimetry bioassay program, while other  
16 workers participated only in an external  
17 dosimetry program. Even if additional  
18 records become available, NIOSH does not feel  
19 it can establish a bounding approach.

20 Our recommended Class: all  
21 employees of the Department of Energy, its

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1 predecessor agencies, and their contractors<sup>124</sup>  
2 and subcontractors who worked in any area at  
3 the Sandia National Laboratories-Livermore in  
4 Livermore, California from October 1, 1957  
5 through December 31st, 1994, for a number of  
6 workdays aggregating at least 250 workdays  
7 occurring either solely under this employment  
8 or in combination with workdays within the  
9 parameters established for one or more other  
10 classes of employees, including the Special  
11 Exposure Cohort.

12 Recommendation for non-SEC  
13 claims: Although NIOSH found it is not  
14 possible to reconstruct radiation doses for  
15 the proposes Classes, NIOSH intends to use  
16 any internal and external monitoring data  
17 that may become available for an individual  
18 claim and that can be interpreted using  
19 existing NIOSH dose reconstruction processes  
20 and procedures.

21 NIOSH finds that it is likely

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1 feasible to reconstruct occupational/medical<sup>125</sup>  
2 dose for Sandia National Laboratories-  
3 Livermore, with the caveat that that only  
4 goes through 1989 because at that point they  
5 moved the X-ray to offsite. And, of course,  
6 at that point, they are not covered.

7 Therefore, dose reconstruction  
8 for individual employees of Sandia National  
9 Lab-Livermore during the period from October  
10 1, 1957 through December 31st, 1994, but who  
11 did not qualify for inclusion in the SEC may  
12 perform using these data as appropriate.

13 And this just summarizes our  
14 reconstruction feasibility during the  
15 timeframe with only occupational/medical  
16 X-rays being considered feasible.

17 Dr. Melius?

18 CHAIRMAN MELIUS: Questions?

19 Wanda?

20 MEMBER MUNN: Thank you, Sam.

21 It sounds absolutely chaotic in

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1 terms of records. And it is such a shame<sup>126</sup>  
2 that such an advanced laboratory doesn't have  
3 the records we're looking for.

4 I assume from implication that  
5 there are no health physics records as we  
6 consider them, that is, records in a bulk  
7 where you can sit down and see what was done  
8 in a year's time with respect to monitoring.

9 Is the monitoring that is done in  
10 individual claims, I mean in individual  
11 personnel files? Or how did they, of the  
12 information you have been able to pull  
13 together, how did you find it? Were they in  
14 individual files or is it just simply not  
15 there?

16 DR. GLOVER: It is in many  
17 places. We found pieces. They have a health  
18 physics server that has pieces of  
19 information. There is some stuff that they  
20 have on the shelf that they have not  
21 transferred to Albuquerque. It is very hard

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1 to get your hands around what is the  
2 totality. We will find stuff in boxes where  
3 we had no idea there was information that was  
4 supposed to be in there. So, we just don't  
5 have a good grasp of it.

6 And as you know, different groups  
7 had different responsibilities of industrial  
8 hygiene --

9 MEMBER MUNN: I understand.

10 DR. GLOVER: -- and then, it  
11 became health physics. It has always been a  
12 very small group up there. Right now, I  
13 think there's only two people who are  
14 permanently staffed at the Sandia National  
15 Lab-Livermore.

16 MEMBER MUNN: Do they have decent  
17 personnel files? No?

18 DR. GLOVER: The units are broken  
19 up and how they chose to report is very hard,  
20 again. They don't just have a nice unit file  
21 that says this is that person's record. They

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1 have to go back to this bulk report, and they<sup>128</sup>  
2 find things. It is a very difficult job for  
3 them.

4 MEMBER MUNN: Yes.

5 DR. GLOVER: They really have  
6 their hands full trying to do their work.

7 MEMBER MUNN: Thank you for  
8 trying it, anyway.

9 CHAIRMAN MELIUS: Paul?

10 MEMBER ZIEMER: Sam, I noticed  
11 that, of the 132 claims that have been  
12 processed, most of them are from this  
13 proposed SEC period. Is it correct, then, to  
14 conclude that, although these dose  
15 reconstructions were done, we now are  
16 recognizing that we had insufficient  
17 information to actually do them properly?

18 This 83.14 case suggests that  
19 these other ones that have already been done,  
20 which I think will fall into the SEC, must  
21 not have been in some way complete. Am I

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1 understanding that correctly? 129

2 DR. GLOVER: That is correct. We  
3 have had claims where we had no data. And  
4 then, they didn't provide anything for  
5 internal. And then, based on our results of  
6 finding some of the information for internal,  
7 found out, well, this guy was uranium  
8 bioassayed and his missed dose would change  
9 the compensation decision.

10 So, that is why we have to go  
11 down to try to do our best due diligence. Is  
12 this information, as Wanda said, is it  
13 available? Have we missed something? Work  
14 with the site to try to put it together.

15 We have understood that we have  
16 been challenged. There is no coworker model  
17 because we don't have the group of data to  
18 work from. And so, we can't really have an  
19 internal/external model to try to file in any  
20 of the gaps. And so, this is what basically  
21 we are seeing, is we have a deficiency even

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1 on the other cases that we have done. 130

2 MEMBER ZIEMER: Thank you.

3 CHAIRMAN MELIUS: Josie?

4 MEMBER BEACH: Yes. Sam, I  
5 thought I had read that you had some air  
6 sample data. Is that helpful in any way  
7 or --

8 DR. GLOVER: Well, we will look  
9 at it. In the Tiger Team efforts, they were  
10 not calibrated, and there is very little  
11 information about how the type of samples,  
12 where would it have been. Again, a lot of  
13 times there were incident-driven aspects to  
14 some of their program, and they set up  
15 temporary evaluations.

16 And so, while we certainly don't  
17 want to throw anything away that might be  
18 even useful for future dose reconstructions,  
19 we don't think, if we even found that  
20 information, it would change our decision.

21 MEMBER BEACH: Okay.

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1 CHAIRMAN MELIUS: Others? 131

2 (No response.)

3 I would just add the report, I  
4 thought, did a good job of sort of capturing  
5 the breadth and complexity of the operations  
6 at the facility. And I think there is some  
7 estimate, if I understand, I think it is  
8 Table 4.3, some estimates of the sort of  
9 percentage exposed.

10 I mean, you know, again, based  
11 from I think the health physics personnel  
12 there or other personal sources, but it is a  
13 very complicated site. So, I can see where  
14 you can start doing dose reconstruction and  
15 you think you have all the information. And  
16 then, you start peeling away. And without  
17 either good personnel records or good  
18 monitoring records that you think are  
19 complete, I can see where you would start  
20 doing dose reconstruction, and then, you  
21 would find out more about the site. It is

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1 complicated. 132

2 And again, I think we have to  
3 always remember that the personnel, the  
4 health physics personnel, may very well have  
5 been protecting people. It is just the  
6 health physics program is not set up  
7 necessarily for dose reconstruction purposes  
8 "X" years later. And the limited personnel,  
9 and so forth, and the nature of some of these  
10 operations, I don't think it is surprising  
11 that we find ourselves in this situation.

12 And it is particularly, I think,  
13 what we found with some of the other  
14 laboratories where, because of the complexity  
15 of the operations there and changes over  
16 time, records may not be as complete as we  
17 would like for purposes of dose  
18 reconstruction. I think that, to me, is  
19 always key. It is not to sort of focus back  
20 on were they protecting people. They may  
21 very well have been doing a very good job of

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1 that. But it does not mean that these  
2 records are, then, good enough for dose  
3 reconstruction and going back in time.

4 Any other comments or questions  
5 from anybody?

6 (No response.)

7 I don't believe that the  
8 petitioner wishes to make any comments. It  
9 is an 83.14.

10 Yes, thank you.

11 Dave Richardson or Bill Field, do  
12 you have any comments?

13 MEMBER FIELD: This is Bill. No  
14 comment.

15 CHAIRMAN MELIUS: Okay. Dave?

16 MEMBER RICHARDSON: No, no.

17 CHAIRMAN MELIUS: Okay. Thank  
18 you.

19 Okay. If not, might I hear a  
20 motion from the Board?

21 MEMBER BEACH: I will make a

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1 motion that we accept NIOSH's recommendation<sup>134</sup>

2 MEMBER CLAWSON: Second it.

3 CHAIRMAN MELIUS: Brad, will you  
4 yield your second to Wanda?

5 No. No, sorry, it has been  
6 recorded. I have been ruled out of order  
7 here. Any further discussion?

8 (No response.)

9 So, we have a motion to accept  
10 NIOSH's recommendation that a Class be added  
11 to the Special Exposure Cohort for all  
12 employees at Sandia National Laboratories-  
13 Livermore, October 1, 1957 through December  
14 31st, 1994.

15 So, Ted, do you want to do the  
16 roll call?

17 MR. KATZ: Yes. Thanks, Jim.

18 And just before I get started  
19 with the roll call, let's me just clarify  
20 there was a question as to whether Phil has a  
21 conflict here. He does not have a conflict.

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1 His son works at a different Livermore site, <sup>135</sup>

2 So, let's run through the -- I am  
3 just going to do this alphabetically,  
4 beginning with Anderson.

5 MEMBER ANDERSON: Yes.

6 MR. KATZ: Beach?

7 MEMBER BEACH: Yes.

8 MR. KATZ: Clawson?

9 MEMBER CLAWSON: Yes.

10 MR. KATZ: Field?

11 MEMBER FIELD: Yes.

12 MR. KATZ: Griffon?

13 MEMBER GRIFFON: Yes.

14 MR. KATZ: Kotelchuck?

15 MEMBER KOTELCHUCK: Yes.

16 MR. KATZ: Lemen?

17 MEMBER LEMEN: Yes.

18 MR. KATZ: Lockey?

19 MEMBER LOCKEY: Yes.

20 MR. KATZ: Melius?

21 CHAIRMAN MELIUS: Yes.

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1 MR. KATZ: Munn? 136

2 MEMBER MUNN: Yes.

3 MR. KATZ: Poston?

4 MEMBER POSTON: Yes.

5 MR. KATZ: Richardson? David?

6 MEMBER RICHARDSON: Yes.

7 MR. KATZ: Roessler?

8 MEMBER ROESSLER: Yes.

9 MR. KATZ: Schofield?

10 MEMBER SCHOFIELD: Yes.

11 MR. KATZ: Valerio?

12 MEMBER VALERIO: Yes.

13 MR. KATZ: And Dr. Ziemer?

14 MEMBER ZIEMER: Yes.

15 MR. KATZ: And it's unanimous.

16 The motion passes.

17 CHAIRMAN MELIUS: Okay. Good.

18 We continue a little bit ahead of schedule,  
19 but we have a pretty long work period this  
20 afternoon.

21 So, one change in schedule for

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1 tomorrow, we have a few Board Members that<sup>137</sup>  
2 have to do smart-card errands, I guess we  
3 call it.

4 And so, we are going to move up  
5 the DuPont Deepwater Works. Do you think you  
6 can handle it, Henry?

7 MEMBER ANDERSON: I think I can  
8 handle it.

9 CHAIRMAN MELIUS: Okay. And sort  
10 of switch that in and do the procedures  
11 review after that. But the DuPont, General  
12 Steel, and Deepwater we need; we have  
13 potential votes on. And so, I think we will  
14 try to do them first tomorrow. And so, we  
15 will make that change.

16 I will again remind you, to  
17 facilitate our Board work time later today,  
18 we have a set of public comments people  
19 should go through. And then, before you do  
20 your Work Group reports, if you could please  
21 review both the DCAS and the SC&A report

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1 scheduling that has been given to everybody, 138  
2 so you can comment on making sure that, in  
3 terms of scheduling Work Group meetings or if  
4 you have questions about when reports are  
5 really due or why they are late or not  
6 timely, or whatever, you will be able to  
7 raise that at the time. And hopefully, it  
8 will help facilitate some of our later  
9 schedule.

10 Ted, do you have anything more?

11 MR. KATZ: No.

12 CHAIRMAN MELIUS: Okay. So, why  
13 don't we take our lunch break and return here  
14 at 1:30? And we will have an exciting  
15 presentation from LaVon Rutherford.

16 (Whereupon, the above-entitled  
17 matter went off the record for lunch at 11:31  
18 a.m. and resumed at 1:34 p.m.)

19

20

21

22

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1 later in this session. 140

2 CHAIRMAN MELIUS: Okay, and we  
3 will start out with an exciting presentation  
4 from LaVon Rutherford, SEC petition status  
5 update.

6 MR. RUTHERFORD: Do I get three  
7 seconds per slide on this one, too?

8 CHAIRMAN MELIUS: Oh, yes.

9 MR. RUTHERFORD: All right. I'm  
10 going to give the status of our upcoming SEC  
11 petitions. And we do this presentation, as  
12 everyone knows, for most of you anyway, we do  
13 this presentation every Board meeting, to  
14 give the Advisory Board an update on where  
15 existing petitions, you know, where we are in  
16 evaluation and qualification, what petitions  
17 kind of prepare the Board for upcoming Work  
18 Group meetings and Advisory Board meetings.

19 As of October 9th, we have up to  
20 215 petitions received. We have one petition  
21 in the qualification process. We have 131

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1 petitions that are qualified, as you can see <sup>141</sup>  
2 and then, 83 petitions that did not qualify.

3 We have eight petition evaluations that are  
4 with the Board in various phases.

5 A number of those -- and you will  
6 see in my next slide -- a number of those  
7 have had some action by the Board. We have  
8 six sites that have had some kind of action  
9 taken on them, the petition evaluation:  
10 Hanford, Los Alamos National Lab, Savannah  
11 River Site, Nuclear Metals, Inc., Joslyn, and  
12 Oak Ridge National Lab. All those have had  
13 action taken, but they are currently still  
14 with the Work Groups for additional review.  
15 Some of these sites, the Work Group is  
16 actually waiting on NIOSH to complete some  
17 additional work and review and some White  
18 Papers to allow them to move forward on  
19 these.

20 We have two petitions that are  
21 with the Advisory Board for their initial

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1 action. That is the Rocky Flats Plant<sup>142</sup>  
2 Revised Evaluation Report, which will be  
3 discussed later today, and then, the Sandia-  
4 Livermore, which Sam just presented, and the  
5 Board has taken action on that.

6 We have potential SECs on our  
7 plate that are basically being held up for a  
8 claim to move the petitions forward. These  
9 are 83.14s. We have Sandia National Lab-  
10 Albuquerque. This is the 1945 through 1948  
11 period. This was the old LANL Z Division,  
12 which was actually encompassed into Sandia  
13 National Lab. Again, these are sites that we  
14 could move forward with an 83.14, but we  
15 don't have a Class -- or don't have a claim.

16 General Atomics, that was one of  
17 our original SECs that had listed a number of  
18 buildings that would be individuals that  
19 worked in those buildings. Over time we  
20 recognized that that Class Definition wasn't  
21 appropriate, and we have looked at modifying

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1 that. However, the Department of Labor has  
2 pretty much treated that, all claims that  
3 come in, they are pretty much treating that  
4 Class as all employees as it is. So, we  
5 haven't received a claim for that one.

6 Dayton Project, Monsanto, that  
7 was modifying based on a change in the  
8 facility designation. It went from an AWE to  
9 a DOE site.

10 And we are also looking at adding  
11 an additional nine-month period. There is an  
12 open period that was covered under the AWE  
13 that is not covered now that we look to add  
14 under the 83.14. However, again, we don't  
15 have a litmus claim for that site as well.

16 Current petitions. We have a  
17 Linde Air Products. I want to make sure you  
18 know this is Linde Air Products; it is not  
19 Linde Ceramics. It is in the Buffalo area.  
20 And this actual site, we have a petition for  
21 this site from 1945 to 1947. All indications

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1 at this time are that they did not work with<sup>144</sup>  
2 any radioactive material at the site. So, it  
3 doesn't like this one will qualify.

4 And then, we have the Kansas City  
5 Plant, which the evaluation is in process at  
6 this time. We are quickly approaching the  
7 180 days, and we did send out a notification  
8 to the Advisory Board that we would not make  
9 the 180 days for this site. And that is due  
10 to some additional data captures that were  
11 driven from classified interviews that we  
12 conducted recently. These classified  
13 interviews brought up some things that we  
14 could do some specific searches for and  
15 identified a number of documents. We have  
16 actually individuals from our contractor who  
17 are at the site right now reviewing those  
18 documents.

19 We do plan to get the Evaluation  
20 Report out in December, in time for the  
21 January Advisory Board meeting in Kansas

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1 City. However, I do want to say that I don't  
2 know exactly what is going to happen with  
3 resources, based on the shutdown, and so on.

4 But our goal is to make the January Advisory  
5 Board meeting for this one.

6 And that's about it.

7 CHAIRMAN MELIUS: Questions for  
8 LaVon?

9 (No response.)

10 Come on, we can't let him get off  
11 here without a question or two.

12 So, Kansas City --

13 MR. RUTHERFORD: Yes.

14 CHAIRMAN MELIUS: -- your note  
15 didn't mention the federal budget thing --

16 MR. RUTHERFORD: No.

17 CHAIRMAN MELIUS: -- but still  
18 raised some doubts --

19 MR. RUTHERFORD: Yes.

20 CHAIRMAN MELIUS: -- about  
21 whether you will finish in time. We were

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1 talking earlier about we have a Work Group<sup>146</sup>  
2 meeting to sort of schedule, and so forth.

3 MR. RUTHERFORD: My concern is  
4 not only the budget, but we are identifying  
5 records in October. A number of these  
6 documents may be classified documents in the  
7 review. And getting these documents reviewed  
8 and either released or sent to Germantown, or  
9 wherever, you know, I am kind of concerned  
10 because that is not in my hands as much as it  
11 is -- or our hands at NIOSH -- as much as it  
12 is in the people at Kansas City. And so,  
13 that concerns me.

14 And then, reviewing those  
15 documents and getting the information, and  
16 all of that, input it into an Evaluation  
17 Report as we move through the holiday periods  
18 in November and December, that concerns me.  
19 So, I wanted to put it out just --

20 CHAIRMAN MELIUS: No, no. Yes,  
21 I'm not being critical.

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1 MR. RUTHERFORD: No. 147

2 CHAIRMAN MELIUS: I am just  
3 trying to understand --

4 MR. RUTHERFORD: Yes.

5 CHAIRMAN MELIUS: -- because we  
6 have both the Work Group meeting and we also  
7 have a Board meeting scheduled in Kansas  
8 City.

9 MR. RUTHERFORD: Right.

10 CHAIRMAN MELIUS: In sort of  
11 terms of contingency planning, is it going to  
12 make sense to have that Board meeting if we  
13 don't have an SEC Evaluation Report ready?  
14 Or it can cut both ways. It may be useful to  
15 get input, but at the same time we are not  
16 going to, may not know what we are going to  
17 need input on. I mean, that is the tricky  
18 part with it, and so forth.

19 I can't remember the exact dates  
20 of the Board meeting.

21 MR. RUTHERFORD: It is pretty

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1 late January, I believe. 148

2 CHAIRMAN MELIUS: Of January?

3 MR. RUTHERFORD: January.

4 CHAIRMAN MELIUS: Yes, yes, and  
5 do that. So, we have a Board call beginning  
6 December. Will that give us enough time to  
7 -- I think NIOSH will know more.

8 MR. RUTHERFORD: Yes, we will  
9 definitely have a pretty strong --

10 CHAIRMAN MELIUS: Okay.

11 MR. RUTHERFORD: -- idea on  
12 whether we are going to make it or not.

13 CHAIRMAN MELIUS: Oh, okay.  
14 Because I think that's right, and I think we  
15 can still sort of be planning, tentatively  
16 planning a Work Group meeting sometime after  
17 the first of the year, you know, the middle  
18 of January or something, to get ready for the  
19 Board meeting. Because I think it is  
20 important that the Work Group have looked at  
21 it, and so forth.

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1                   We can decide that and we can  
2                   decide whether we need to do any preliminary  
3                   tasking of SC&A, but SC&A has done a Site  
4                   Profile review, is that correct, for Kansas  
5                   City? Or is there some --

6                   DR. MAKHIJANI:     Yes, the Site  
7                   Profile review is essentially done.

8                   CHAIRMAN MELIUS:   Okay.

9                   DR. MAKHIJANI:     It is to go to  
10                  DOE, however, and given the situation, we  
11                  don't know how long that will take.

12                  CHAIRMAN MELIUS:   Yes.

13                  DR. MAKHIJANI:     There is a little  
14                  bit of cleanup and typesetting that needs to  
15                  be done, but in a couple of days it will go  
16                  to DOE.

17                  CHAIRMAN MELIUS:   Okay.    So, we  
18                  will know that; we will know the status of  
19                  that by December, too.  At least SC&A will be  
20                  familiar with the site for the Work Group  
21                  meeting.

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1                   Josie, do you want to add  
2 anything? You were asking about this before.

3                   MEMBER BEACH: Well, I was just  
4 wondering if we could task SC&A to review the  
5 Evaluation Report or we have to wait until it  
6 comes out.

7                   MR. KATZ: It's fine. I mean, we  
8 will task it when it comes out.

9                   MEMBER BEACH: Okay.

10                  CHAIRMAN MELIUS: Yes, let's see  
11 what it recommends also.

12                  MEMBER BEACH: Sure.

13                  CHAIRMAN MELIUS: Yes. Okay.  
14 Any other questions for LaVon?

15                         (No response.)

16                         No? We get another chance later,  
17 LaVon.

18                  MR. RUTHERFORD: Yes.

19                  CHAIRMAN MELIUS: Okay. So, work  
20 time. And I need to get ready for work time  
21 here.

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1 Do we want to start with meeting  
2 schedules while everyone is here? You're  
3 struggling with --

4 MR. KATZ: I just want to sort  
5 out everything that we're doing first.

6 CHAIRMAN MELIUS: Okay. So,  
7 Board comments. We have, I believe, two  
8 files that have been sent to everybody that  
9 were public comments from the July meeting.  
10 And they are sort of strangely organized this  
11 time.

12 One says "Board PCB," which is  
13 public comments, something or other, July,  
14 and then, another one that says "Board CP -  
15 Ted to Board". Those I think are the two.

16 MR. KATZ: That's a referral.  
17 So, those are specific comments that were  
18 referred to either a Work Group or in this  
19 case to you.

20 CHAIRMAN MELIUS: Is there  
21 another set?

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1 MR. KATZ: Then, there's a full<sup>152</sup>  
2 set, right.

3 CHAIRMAN MELIUS: Which is named?

4 MR. KATZ: I don't have the file  
5 in front of me, so I don't know what it was  
6 named, but it was two documents, like usual,  
7 a summary document and a scratch sheet.

8 CHAIRMAN MELIUS: Then maybe I  
9 don't have those.

10 MEMBER ZIEMER: Board PCP?

11 CHAIRMAN MELIUS: No.

12 MR. KATZ: In my email to you  
13 all, those two files are the files we are  
14 working from.

15 MEMBER LEMEN: That's what I  
16 have.

17 MR. KATZ: Right, right.

18 MEMBER LEMEN: So, what do we do?

19 MR. KATZ: Those are the ones we  
20 go through.

21 CHAIRMAN MELIUS: And what are

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1 CHAIRMAN MELIUS: Well, it is not  
2 that something he was describing. I thought  
3 it was it, too.

4 MEMBER ZIEMER: Yes, that's it.  
5 That's it.

6 CHAIRMAN MELIUS: That's what I'm  
7 referring to, and it's called "Board PCB July  
8 Comments". And Ted was telling me there's  
9 another one.

10 MEMBER ZIEMER: The other one  
11 says, "Ted to the Board".

12 MR. KATZ: Right, right.

13 CHAIRMAN MELIUS: Okay.

14 MR. KATZ: Yes, that's just a  
15 specific one. That's what I'm saying. That  
16 "Ted to Board" is not comprehensive. It is  
17 one item.

18 CHAIRMAN MELIUS: Right, which is  
19 the other one, yes. That's where I started.

20 MR. KATZ: Okay.

21 MEMBER LEMEN: The one you're

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1 talking about entitled, "Public Comments<sub>155</sub>  
2 July 16th-17th, 2013".

3 CHAIRMAN MELIUS: Yes, and that  
4 goes through No. 13.

5 MEMBER LEMEN: Yes, it goes  
6 through 13. And then, the next comment is 14  
7 by Joan Stewart. At least that is the one I  
8 have. And that is 14, 15, and 16.

9 MEMBER MUNN: Yes.

10 MEMBER LEMEN: And then, Mark  
11 Nelson, 17, 18, 19. No, 17 only.

12 MEMBER MUNN: That is the one on  
13 the Excel sheet.

14 MEMBER LEMEN: No, that is  
15 actually not the Excel sheet. That is the  
16 other one.

17 CHAIRMAN MELIUS: Oh, I see.

18 MEMBER LEMEN: There is a  
19 duplication on the Excel sheet of what is on  
20 the other one.

21 MEMBER MUNN: I see it. Yes.

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1                   CHAIRMAN MELIUS:   Well, I think<sup>156</sup>  
2                   we will wait until we get this organized  
3                   because I think I'm missing something.

4                   Okay.    Are you ready for the  
5                   dates?

6                   MR. KATZ:   Sure.

7                   CHAIRMAN MELIUS:   Okay.

8                   MR. KATZ:   So, dates coming up,  
9                   this is for meeting dates we are talking  
10                  about right now.

11                  We have scheduled a December 9  
12                  teleconference as our next meeting.  That is  
13                  a problem now for Dr. Melius.  So, we want to  
14                  try to reschedule that, perhaps for later in  
15                  the week, if that works.  And I think the  
16                  12th and the 13th work for you or 11th, 12th,  
17                  13th, Jim?

18                  CHAIRMAN MELIUS:   Yes.

19                  MR. KATZ:   The 11th, starting at  
20                  the 11th?

21                  CHAIRMAN MELIUS:   Yes.

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1 MR. KATZ: So, for example, the <sup>157</sup>  
2 11th, that's Wednesday. Does that work for  
3 others? It is a teleconference. So, we are  
4 just talking about from 11:00 --

5 MEMBER LEMEN: The 12th works for  
6 me --

7 MR. KATZ: The 12th.

8 MEMBER LEMEN: -- but not the  
9 11th.

10 MR. KATZ: Does the 12th work for  
11 others?

12 MEMBER BEACH: Yes.

13 MEMBER FIELD: Ted, it doesn't  
14 work for me, but the following week would.

15 MR. KATZ: The 12th does not work  
16 for you, Bill?

17 MEMBER FIELD: The 11th and the  
18 13th don't.

19 MR. KATZ: Okay. So, let's look  
20 at --

21 MEMBER ANDERSON: The 17th or

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1 18th? 158

2 MR. KATZ: Yes, these are all  
3 fine with me. Does the 17th or 18th work for  
4 others, the 17th, say? Okay. Let's do the  
5 17th then, 11:00 a.m.

6 Oh, wait, wait.

7 MEMBER ANDERSON: I can't at  
8 11:00. I've got openings. We could do an  
9 hour later.

10 MR. KATZ: Yes, those don't work  
11 for him.

12 MEMBER ANDERSON: The 18th, the  
13 whole morning is free for me.

14 MR. KATZ: The 18th is good?

15 MEMBER ANDERSON: Yes, for the  
16 whole morning, yes.

17 MR. KATZ: Okay. The 17th, how  
18 about at noon instead of --

19 MEMBER ANDERSON: How about the  
20 17th at 10:00?

21 MR. KATZ: Oh, earlier in the

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1 morning? 159

2 MEMBER ANDERSON: No.

3 MR. KATZ: Are you talking about  
4 Eastern Time?

5 MEMBER ANDERSON: How about 12:00  
6 Eastern? Noon?

7 MR. KATZ: Yes. That's fine.  
8 Let's see how Jim's schedule is.

9 MEMBER ANDERSON: December 17th.

10 CHAIRMAN MELIUS: December 17th  
11 at noon?

12 MEMBER ANDERSON: Noon Eastern.

13 CHAIRMAN MELIUS: That is fine.

14 MR. KATZ: Okay. So, let's do  
15 that, the 17th, noon. Okay. That's a  
16 teleconference.

17 And then, as Jim I think  
18 mentioned earlier, we have our Board meeting  
19 on the 28th and 29th in Kansas City, January  
20 28th and 29th.

21 The next meeting scheduled is the

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1 teleconference on March 19th, 11:00 a.m. 160

2 MEMBER LEMEN: There's nothing in  
3 February?

4 MR. KATZ: No.

5 CHAIRMAN MELIUS: I'll call you  
6 in February, Dick.

7 MEMBER LEMEN: Please.

8 CHAIRMAN MELIUS: Yes.

9 MR. KATZ: It's the 19th.

10 MEMBER ANDERSON: At 11:00,  
11 right?

12 MR. KATZ: Yes.

13 And then, we have a meeting  
14 scheduled April 29th and 30th, location to be  
15 determined.

16 MEMBER ANDERSON: That's the EIS  
17 Conference.

18 MR. KATZ: The 29th and 30th, we  
19 scheduled for a Board meeting. Is that what  
20 you're saying, there's a problem?

21 MEMBER ANDERSON: Yes, there is a

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1 MEMBER ANDERSON: Right. 162

2 MR. KATZ: Okay. So, we're good  
3 for that. Augusta, Georgia. If we can get  
4 enough done with Savannah River Site, that  
5 would be good.

6 So, are we penciling-in Augusta  
7 now?

8 CHAIRMAN MELIUS: Yes.

9 MR. KATZ: Right. The 29th and  
10 30th of April.

11 CHAIRMAN MELIUS: Actually, Andy,  
12 you can kidnap your EIS candidate and bring  
13 him to Augusta.

14 MEMBER ANDERSON: Yes.

15 CHAIRMAN MELIUS: That way, no  
16 one else would be able to recruit him or her.

17 MEMBER ANDERSON: No, he has got  
18 a presentation.

19 CHAIRMAN MELIUS: Oh, okay.

20 MEMBER ANDERSON: He is already  
21 recruited.

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1 CHAIRMAN MELIUS: Oh, okay. What <sup>163</sup>

2 day is his presentation?

3 MEMBER ANDERSON: I don't know

4 yet.

5 MR. KATZ: We can work on that

6 scheduling with CDC. Okay.

7 So, then, for scheduling, the  
8 next dates out we need is we need a  
9 teleconference meeting around the week of  
10 June 18th or June 25th.

11 CHAIRMAN MELIUS: I'll call you  
12 in Maine, Dick, though, so you're not out of  
13 touch.

14 MR. KATZ: So, if you want to  
15 look at your calendars for June?

16 MEMBER MUNN: Either is good.

17 MR. KATZ: June 18th being the  
18 Wednesday.

19 MEMBER MUNN: Yes.

20 MEMBER LOCKEY: The 18th is good.

21 The 25th is not good for me.

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1                   MR. KATZ:    The 18th is good for  
2                   others?    Okay, so June 18th it is for a  
3                   teleconference at 11:00.

4                   And then, a meeting around the  
5                   week of July 28th or August 4th or August  
6                   11th, those weeks.

7                   MEMBER LEMEN:    What about the  
8                   28th and 29th of July?

9                   CHAIRMAN MELIUS:   How about the  
10                  29th and 30th?

11                  MR. KATZ:        Is that good for  
12                  others, the 29th and 30th of July?

13                  MEMBER BEACH:    Yes.

14                  MR. KATZ:        Bill, on the phone?

15                  MEMBER FIELD:    Yes, that's good.

16                  MR. KATZ:        The 29th and 30th,  
17                  July.

18                  MEMBER FIELD:    Yes.

19                  MR. KATZ:        That's actually a good  
20                  time to go down, too.

21                  CHAIRMAN MELIUS:    Yes, I know.

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1 That's what I said. 165

2 MR. KATZ: July 29 and 30, okay,  
3 and I'll pencil in Amchitka.

4 MEMBER LEMEN: We don't have a  
5 location then, right?

6 MR. KATZ: No.

7 Okay. Well, that was incredibly  
8 easy. All right. We are done with  
9 scheduling.

10 MEMBER KOTELCHUCK: Should I  
11 pencil-in Amchitka?

12 MR. KATZ: Go ahead. Just have  
13 an eraser when it comes to it.

14 CHAIRMAN MELIUS: The plane in  
15 will seat 20, the plane out will seat 10.

16 MR. KATZ: The bears get the  
17 rest.

18 CHAIRMAN MELIUS: The bears, yes.

19 Okay. Work Groups and  
20 Subcommittees, I am going to go based on the  
21 website. And, Dave Kotelchuck, you are up

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1 first on Dose Reconstruction Review <sup>166</sup>

2 Subcommittee --

3 MEMBER KOTELCHUCK: Okay.

4 CHAIRMAN MELIUS: -- if you're  
5 prepared.

6 MEMBER KOTELCHUCK: I would like  
7 to come next because I have to find the date  
8 of our meeting. But, look, we are coming  
9 along well.

10 We have finished all but two in  
11 set 9. Sets 10 through 13, we have finished  
12 the Rocky Flats, LANL, which is to say the  
13 large sites, and we are beginning to do, we  
14 will do next time Portsmouth and Paducah. We  
15 have also closed Fernald. So, we are moving  
16 along well.

17 If one of my colleagues would  
18 remind me of the date of our next scheduled  
19 meeting? I believe we have one. And it will  
20 take just a moment and I will find it.

21 But good progress.

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1 MR. KATZ: It's November 20th. 167

2 MEMBER KOTELCHUCK: November  
3 20th. Thank you.

4 CHAIRMAN MELIUS: And how are you  
5 doing on the in-depth reviews? Or maybe it  
6 is how is SC&A doing?

7 MEMBER KOTELCHUCK: Yes. Well,  
8 we completed two more of the blind reviews.

9 Which gives us a total of 10.  
10 But we are not moving ahead too rapidly on  
11 those. Frankly, we have been putting our  
12 focus on getting those sets 10 through 13,  
13 which have been hanging around for a long  
14 time, done.

15 CHAIRMAN MELIUS: Okay.

16 MEMBER KOTELCHUCK: But we will  
17 come back to it soon.

18 CHAIRMAN MELIUS: Yes, I would  
19 just urge you to do that soon, soon or  
20 sooner, because those have been out there.  
21 That whole issue has been out there a long

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1 time, like over 10 years. 168

2 And so, what do we gain from  
3 different types of reviews, and so forth?  
4 And it comes up in terms of some of our  
5 contract considerations and time and  
6 resource, and so forth.

7 MEMBER KOTELCHUCK: So noted.

8 CHAIRMAN MELIUS: Yes. Okay.

9 Anybody else with questions on  
10 that?

11 (No response.)

12 Okay. Wanda, in addition to your  
13 presentation tomorrow.

14 MEMBER MUNN: Well, I have been  
15 told that my reports to you are sort of dull  
16 because they have a tendency to focus on the  
17 statistics of what we have done and what we  
18 haven't done, and that it would be nice if I  
19 provided a little more detail about exactly  
20 what we're doing. So, I wrote myself a note,  
21 and I get to read my note to you, hopefully,

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1 giving you an idea of the breadth of material<sup>169</sup>  
2 that we are dealing with in Procedures.

3 I will mention some of the  
4 information which you already have seen in  
5 SC&A's report because, obviously, a great  
6 deal of the work that we do relies entirely  
7 on what SC&A is doing. And so, this will be  
8 a slight duplication. I'll try to keep it  
9 brief.

10 Our last meeting was on July 18th  
11 in Idaho Falls. We met immediately following  
12 the meeting that we had there.

13 All findings on two of the items  
14 that we have on our agenda have now been  
15 closed or are in abeyance. And that is PROC-  
16 44 -- that's a Special Exposure Cohort -- and  
17 OTIB-55, the conversion from NCRP Report 38,  
18 Neutron Quality, to ICRP Publication 60,  
19 Radiation Weighting Factors for IREP Energy  
20 Ranges.

21 We now only have three, or maybe

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1 four, OTIBs in our process that are moving<sup>178</sup>  
2 along.

3 The last few meetings, we have  
4 been giving some special attention to PERs.  
5 The Program Evaluation Reviews, several have  
6 been assigned already and are working on  
7 them. The others are in the pipeline and  
8 coming down that line. SC&A I believe has a  
9 total of a little over 20 that have been  
10 suggested and that have been approved. They  
11 are working on a little over half of those  
12 right now, I think. So that we have them in  
13 various stages of process.

14 They include the Reduction Pilot  
15 TBDs, that is, revised TBDs, for the  
16 Reduction Pilot Plant, for the Huntington  
17 Pilot Plant, or Savannah River, Y-12,  
18 Blockson, Ames, Hooker, Mallinckrodt, K-25,  
19 along with some applicable TIB revisions.

20 The PERs that we are tracking  
21 already, even though some of us are not in

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1 hand yet, include PER-8, which is the IREP  
2 Modification Effects on the Lung Cancer Risk  
3 Model, PER-14, Construction Trade Workers,  
4 PER-4, Photofluorography at Pinellas, and  
5 PER-12. That is the Highly-Insoluble  
6 Plutonium PER.

7 Others are relating to  
8 misinterpreted dosimetry records, the effect  
9 of adding ingestion intakes to some cases,  
10 and errors in surrogate organ assignment and  
11 misinterpreted application of some of the  
12 external dose factors. Those are topics that  
13 are covered in the findings that we are  
14 dealing with at one stage or another.

15 Right now, the total findings on  
16 our Board Review System worksheet shows a  
17 total of 643. Of those, 531 have been  
18 resolved, and that is a tally of 82.7 percent  
19 of all that we have had before us.

20 We have recently had an  
21 overarching issue about rotational geometry

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1 transferred to us from Dose Reconstruction<sup>172</sup>  
2 and we will be dealing with that, at least  
3 putting it on the agenda for our next  
4 meeting.

5 Our next meeting was scheduled  
6 for November 7th.

7 And that's all I have.

8 CHAIRMAN MELIUS: Okay. Thank  
9 you. That's not all you have. You have more  
10 tomorrow, but all you have for now.

11 MEMBER MUNN: That's all I have  
12 for this moment.

13 CHAIRMAN MELIUS: This moment.

14 MEMBER MUNN: I'll give you a  
15 break for the afternoon.

16 CHAIRMAN MELIUS: Okay. Fair  
17 enough, Wanda.

18 Any questions for Wanda?

19 (No response.)

20 We will move on to Work Groups.  
21 Santa Susana, Phil.

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1 care of. That is in the process. And ~~we~~<sup>we</sup>  
2 have got quite a few Site Profiles, and we  
3 are still pushing through with that.

4 CHAIRMAN MELIUS: Hanford, my  
5 Work Group, I'm the Work Group Chair.

6 As usual, Arjun disappears when  
7 -- oh, there he is. You were hidden. You  
8 were hiding behind Joe. I couldn't see you.

9 Thank you, Joe.

10 I actually thought they were  
11 playing some sort of computer game.

12 DR. MAKHIJANI: We are almost  
13 done with Hanford. I have a memorandum from  
14 Joe in my inbox, which I will attend to on  
15 Monday. And so, you should get something --  
16 well, there will be a DOE review. So, again,  
17 it will be an update on the memorandum that  
18 we sent you in April --

19 CHAIRMAN MELIUS: Okay.

20 DR. MAKHIJANI: -- covering the  
21 site visit and the document reviews. And you

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1 will get an update from us. 175

2 CHAIRMAN MELIUS: And then, the  
3 plan would be to do a Work Group, probably a  
4 Work Group call, to go through that new  
5 update. It is a matrix update of what are  
6 issues that are --

7 DR. MAKHIJANI: Yes.

8 CHAIRMAN MELIUS: -- left. And  
9 then, to sort of prioritize and decide what  
10 needs to be done.

11 So, for those of you who are on  
12 the Work Group, expect us to schedule that  
13 first as soon as we get the report from --

14 DR. MAKHIJANI: Yes, just as a  
15 point of information, you know, we made a  
16 document request, and that was a long  
17 process. And then, toward the tail-end of  
18 that, the site said that they would look for  
19 more documents for us. And then, we had very  
20 recently kind of an extensive list of box  
21 titles, basically. And so, we are not

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1 proposing to deal with that right now. <sup>We</sup> 176

2 will just save it. It is there.

3 And we basically have completed  
4 the issues that we had wanted to complete.

5 CHAIRMAN MELIUS: Okay. Yes, and  
6 Paul just reminded me; the Work Group would  
7 also involve the PNNL issue. And before you  
8 were here this morning, Arjun, I raised the  
9 issue that I wanted NIOSH to be prepared to  
10 discuss with the Work Group the issue about  
11 sort of folding PNNL and Hanford together,  
12 and how that might affect some of the earlier  
13 SECs. So, nothing to task for SC&A at this  
14 time, but it would be part of our next Work  
15 Group meeting.

16 DR. MAKHIJANI: Right, because we  
17 are only covering to 1990 in this.

18 CHAIRMAN MELIUS: Yes. I can  
19 explain in more detail later.

20 Any questions on Hanford?

21 (No response.)

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1 Idaho, Phil. 177

2 MEMBER SCHOFIELD: Okay. Idaho,  
3 we have got four White Papers outstanding  
4 that are, hopefully, going to be completed in  
5 October. And then, there is a coworker model  
6 that is being developed, and that date has  
7 not been set yet. Once these White Papers  
8 are issued, then we will schedule a Work  
9 Group meeting. I am not confident of the  
10 October deadline.

11 CHAIRMAN MELIUS: Well, Stu or  
12 somebody or LaVon?

13 MR. RUTHERFORD: Yes, right now,  
14 those White Papers are in review, internal  
15 review. I can't say whether our comments or  
16 findings will push it out beyond that. But  
17 this is -- what is the date today? -- the  
18 16th. It will be pretty tight to get it by  
19 the end of the month. But it is coming up  
20 very quickly.

21 CHAIRMAN MELIUS: So, Halloween

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1 at midnight I'll go onto my CDC computer and  
2 look.

3 MEMBER SCHOFIELD: I really  
4 wasn't blaming you guys.

5 CHAIRMAN MELIUS: Okay. Yes,  
6 Idaho is probably the biggest site that is  
7 outstanding in terms of really getting into.  
8 So, I would urge you to work hard on this,  
9 not that you don't work hard, yes, yes.

10 Gaseous Diffusion Work Group, you  
11 again, Phil.

12 MEMBER SCHOFIELD: Okay. The  
13 real outstanding issue is the neutron-to-  
14 photon ratio for Portsmouth and K-25.  
15 Paducah is closed out. So, we don't have any  
16 matrix issues left there. Once that is  
17 settled, then I think we can do a  
18 teleconference and close it out.

19 CHAIRMAN MELIUS: So, are you  
20 waiting on a report from NIOSH or SC&A?

21 MEMBER SCHOFIELD: NIOSH.

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1                   CHAIRMAN MELIUS:    NIOSH?   Okay.179

2                   Stu?

3                   MR. HINNEFELD:   Well, I can offer  
4                   a little bit on that.   We have identified  
5                   some documents in the holdings of the USEC,  
6                   United States Enrichment Corporation, who  
7                   took over portions of the plants that we  
8                   think are relevant to helping us determine  
9                   neutron-to-photon ratios in a plant.   And  
10                  this has led to a rather difficult  
11                  negotiation with USEC that our Office of  
12                  General Counsel is doing.   And we have made a  
13                  lot of progress in that negotiation.   We  
14                  think we will be able to get documents from  
15                  the USEC relatively quickly.

16                  It is down now to essentially a  
17                  non-disclosure agreement that they want us to  
18                  deal with that we had worked out once.   And  
19                  then, they discovered, hey, some of this  
20                  stuff may be OUO.   And so, they wanted to  
21                  modify it to deal with that as well, even

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1       though we deal with OUO material all the <sup>180</sup>  
2       time.

3                       So, that's where it is at. It is  
4       kind of the end stages of our talk with USEC.

5       We have identified from their finding aids  
6       the things we want, the records we want. And  
7       so, we are pretty far down the path with  
8       them. It is just a matter of finishing up  
9       that agreement.

10                      CHAIRMAN MELIUS:    Okay.  Thanks,  
11       Stu, on that.

12                      Kansas City I think we have  
13       covered.

14                      Lawrence Berkeley.

15                      MEMBER ZIEMER:        On Lawrence  
16       Berkeley, I was able to get a report this  
17       past week from Lara Hughes, who is the lead  
18       for NIOSH on this particular site. And let  
19       me just relay what she has given to me on  
20       that.

21                      She indicated that, since the

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1 first Work Group meeting, which was last<sup>181</sup>  
2 year, NIOSH has received four additional  
3 White Papers from SC&A and is reviewing  
4 those, and is still preparing responses to  
5 the issues that were identified by SC&A.

6 And in addition, NIOSH is working  
7 on addressing some tasks that were outlined  
8 in the issues matrix, such as data adequacy  
9 and completeness. And they are still  
10 evaluating that.

11 And she goes on to say that, in  
12 the past year, they have completed additional  
13 data captures from Lawrence Berkeley to  
14 obtain more information on the bioassay  
15 program and on site operations.

16 Currently, the NIOSH White  
17 Papers, the responses are in draft form,  
18 pending some resolutions of internal  
19 technical issues. And I believe on the NIOSH  
20 schedule, I think she indicated the end of  
21 October she hoped to have those reviews

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1 finished. Once we get those, we will<sup>182</sup>  
2 schedule a Work Group meeting.

3 CHAIRMAN MELIUS: Okay. Does  
4 that date sound right, LaVon or Jim?

5 MEMBER ZIEMER: I can double-  
6 check that. It is on the other schedule.

7 MR. RUTHERFORD: Yes, I got the  
8 Work Group schedule, actually, up, and it  
9 says estimated completion date December.

10 MEMBER ZIEMER: Oh, December?  
11 Okay.

12 MR. RUTHERFORD: December.

13 MEMBER ZIEMER: I knew it was the  
14 end of something, but --

15 CHAIRMAN MELIUS: Yes. Okay.  
16 LANL.

17 MEMBER GRIFFON: LANL is in the  
18 post-1995 focus, and NIOSH is working to get  
19 some information on the dosimetry program  
20 from 1995 onward. They had a response. I  
21 got an email from NIOSH saying they recently

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1 had a response from the site to some<sup>183</sup>  
2 questions that they asked about the dosimetry  
3 program. They are reviewing the responses,  
4 putting that data together. They are also  
5 asking some follow-up questions on some of  
6 the exotics and other radionuclides that we  
7 have been interested in.

8 And so, I think it is still in  
9 NIOSH's hands. Once they review this stuff,  
10 they will, then, produce something for SC&A  
11 to review. And no plans for a Work Group  
12 until we have further progress on this, but  
13 we will keep you updated.

14 CHAIRMAN MELIUS: Okay.

15 Mound, I think we will  
16 procrastinate until tomorrow morning. I need  
17 to talk to Josie --

18 MEMBER BEACH: Yes.

19 CHAIRMAN MELIUS: -- and SC&A  
20 about what are next steps will be. So, let's  
21 talk --

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1 MEMBER BEACH: Okay. 184

2 CHAIRMAN MELIUS: -- and then, we  
3 will put it on the schedule for tomorrow.

4 Nevada Test Site.

5 MEMBER CLAWSON: SC&A has got the  
6 completed matrix. The only thing that we  
7 really need to do is sit down as a Work Group  
8 now and start going through the Site Profile  
9 issues to finish Nevada Test Site up. We  
10 will have to schedule that.

11 CHAIRMAN MELIUS: You're going to  
12 start working on the schedule while you are  
13 here?

14 MEMBER CLAWSON: Sure. If they  
15 could tell me if they are going to be able to  
16 support it, we can do it.

17 CHAIRMAN MELIUS: Give us a new  
18 excuse now.

19 MEMBER CLAWSON: What's that?

20 CHAIRMAN MELIUS: It gives us a  
21 new excuse, right?

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1 database in which they have found some <sup>186</sup>  
2 bioassay codes listed as 000. And they are  
3 following through on that, and they are  
4 looking to see in this database if the rest  
5 of these radionuclides are under this coding.

6 And he gives some more detail on that, which  
7 I won't go through.

8 But to investigate this further,  
9 NIOSH has requested all of these 000 bioassay  
10 cards, and there are about 1200 of these,  
11 from ORNL. And so, they are working on that.

12 He goes into a little detail  
13 about the government shutdown and what that  
14 might mean. And so, we won't speculate on  
15 that.

16 He says he wishes he could give a  
17 date when the ER addendum will be ready, but  
18 he really can't at this time, due to the  
19 complexity of looking this all up, and the  
20 government shutdown, and how that has  
21 affected things.

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1                   He said he was hoping to be able<sup>187</sup>  
2                   to present this to the Work Group in January,  
3                   but that is kind of in jeopardy right now.  
4                   So, that is as far as we can go at this  
5                   point.

6                   CHAIRMAN MELIUS:       Well, keep  
7                   holding his feet to the fire.

8                   MEMBER ROESSLER:    Okay.

9                   CHAIRMAN MELIUS:    Yes.

10                  Pantex, I think we are complete  
11                  on that. Did we leave anything --

12                  MEMBER CLAWSON:    Well, yes, Joe  
13                  has started into the Site Profile matrix  
14                  update that we have got. We have got one  
15                  outstanding issue --

16                  CHAIRMAN MELIUS:    Okay, as I  
17                  thought.

18                  MEMBER CLAWSON:    -- that needs to  
19                  be responded to from NIOSH. And that is on  
20                  the neutron issue. And they were working on  
21                  that one.

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1 CHAIRMAN MELIUS: Pinellas, Phil<sup>188</sup>

2 MEMBER SCHOFIELD: NIOSH is  
3 currently working on addressing some comments  
4 by SC&A on the tritide approach, which is  
5 going to be based, it looks like, mostly off  
6 of the approach they used at Mound. But that  
7 hasn't been set yet. And given the criteria  
8 they are working under, that may be delayed a  
9 little bit longer.

10 CHAIRMAN MELIUS: Sandia?

11 Jim, did you want to add  
12 something there? You started to get up or --

13 DR. NETON: I just maybe have a  
14 little more information on the Pinellas  
15 situation. We are actually just waiting to  
16 interview a couple more people on the  
17 approach to handle the tritides at Pinellas.

18 It was because one of the procedures that  
19 they published at the site, and apparently  
20 used, at least we think they used for a  
21 while, indicated that the swipes were

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1 filtered, which would filter out the <sup>189</sup>  
2 tritides. So, the Mound approach might not  
3 be useful there.

4 We want to flesh that out a  
5 little more. We have already interviewed one  
6 HP. He gave us the name of a couple more  
7 people. Once we finish those interviews, we  
8 will be able to resolve this. I believe it  
9 is the last outstanding issue.

10 CHAIRMAN MELIUS: Thanks, Jim.

11 Sandia. Sandia.

12 MEMBER LEMEN: I think you heard  
13 the report this morning. There is nothing  
14 more.

15 CHAIRMAN MELIUS: Nothing more?  
16 Okay. Thanks. I didn't want to ignore you;  
17 that's all.

18 MEMBER LEMEN: Well, you startled  
19 me.

20 CHAIRMAN MELIUS: It's  
21 alphabetical, sort of, and repetitive, since

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1 for some reason I have each of the Paducah<sup>190</sup>  
2 K-25 listed repeatedly. So, I almost called  
3 three times.

4 Savannah River.

5 MEMBER GRIFFON: In alphabetical  
6 order.

7 Yes, there has been a fair amount  
8 of activity on Savannah River, including some  
9 site visit work. And I know Brad was there  
10 as representing the Work Group.

11 In addition to what they were  
12 looking for, I think they found some, NIOSH  
13 found some information that at least raises  
14 some questions on the coworker model. They  
15 found additional -- or they found that some  
16 contractor and subcontractor data was stored  
17 in a separate location. There is a question  
18 whether that data is in the overall database.

19 So, that is requiring quite a bit of further  
20 assessment by NIOSH. And I think they have  
21 contacted Knut Ringen, I think, to talk about

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1 some of the contractors and identify some <sup>of</sup> ~~191~~  
2 that information.

3 So, that is sort of an ongoing  
4 thing which could have an effect. We just  
5 don't know. So, they are running that down.

6 In addition, there are some  
7 outstanding findings and White Papers that  
8 are on the table for the Work Group to  
9 consider, especially around neptunium and  
10 thorium and internal dose reconstruction  
11 questions for those. I think I am going to  
12 work with Tim also to sort of try to set up a  
13 Work Group meeting to keep things moving  
14 along, hopefully, by the end of this calendar  
15 year.

16 I think we should continue to  
17 work on the outstanding issues that SC&A has  
18 on the table, in addition, in parallel with  
19 that field work that is going on.

20 So, that is sort of an update,  
21 but I hope to convene our Work Group meeting

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1 by the end of the year. 192

2 CHAIRMAN MELIUS: Okay. Yes, and  
3 my understanding of the additional sets of  
4 records, and so forth, is that would be a  
5 fairly monumental or significant task to  
6 undertake. And so, it is sort of a question  
7 of, is it warranted or not? But I think  
8 having a Work Group meeting to sort of air  
9 some of these issues would be helpful. So,  
10 we will do that.

11 I am familiar with some of the  
12 reports that came up because they deal with  
13 some of the coworker models, and they raise,  
14 some of the SC&A reviews raise some pretty  
15 serious issues about those models. So, I  
16 think it would be worth spending some time on  
17 it. So, thanks, Mark.

18 David Richardson, I don't know if  
19 you're on the line yet. Scientific Issues  
20 Work Group.

21 MEMBER RICHARDSON: We have been

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1 inactive for a very long time, sort of  
2 stalled waiting for a report from NIOSH on  
3 peer review.

4 CHAIRMAN MELIUS: Okay. I guess  
5 my question would be, because no fault of  
6 your own you have been stalled, are there  
7 other issues that you should be considering  
8 or would want to start considering while  
9 waiting?

10 MEMBER RICHARDSON: Yes, I have  
11 been puzzling over that for a while, whether  
12 it makes sense to go in more than one  
13 direction at once. And part of the reality,  
14 I guess, is that there is not a fire burning  
15 under us, like a strong constituency pushing  
16 on any of these scientific issues. So, we  
17 have some luxury of time.

18 But we could start something else  
19 up if this report is not coming. I have  
20 thought it was coming for quite a while.

21 CHAIRMAN MELIUS: I know, it's in

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1 the mail. 194

2 Can we have an update on the  
3 report itself?

4 DR. NETON: Yes. We passed on --  
5 remember the last time I reported that we  
6 requested seven, reviewed some seven subject  
7 matter experts. We ended up getting six, and  
8 I decided not to wait for the seventh review.  
9 It didn't seem to be coming very quickly.

10 So, some time ago, three or four  
11 weeks ago or more, we passed those review  
12 comments over to SENES, and they are working  
13 on addressing each and every comment that  
14 they received on this.

15 CHAIRMAN MELIUS: Do you have a  
16 --

17 DR. NETON: I don't have a  
18 timeline for when they are going to complete  
19 that, though, at this time.

20 MEMBER LEMEN: When you said you  
21 passed them over, who did you say?

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1 DR. NETON: SENES. Actually, <sup>195</sup>  
2 they changed their name now. They are no  
3 longer SENES, Oak Ridge, Incorporated. It is  
4 Oak Ridge Center for Risk Analysis or  
5 something like that. I have forgotten --

6 MEMBER LEMEN: Yes, okay.

7 DR. NETON: -- their latest name.

8 But, yes, SENES was our  
9 contractor that does the risk modeling for  
10 us.

11 CHAIRMAN MELIUS: Yes, yes.

12 DR. NETON: But I have not gotten  
13 an expected completion date on their comment  
14 reviews.

15 CHAIRMAN MELIUS: Yes. I mean,  
16 my recollection -- and someone can correct me  
17 if I'm wrong -- but I think we had sort of a  
18 number of prioritized issues for that group.

19 I think that it may make sense to start  
20 working some of these issues in parallel.

21 Yes, there may not be a

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1 constituency other than the constituency <sup>in</sup><sub>196</sub>  
2 this room that wants to sort of push some of  
3 these issues. But I think they are important  
4 and there were some priority issues.

5 So, Dave, I would urge you to  
6 talk to other Work Group Members and to  
7 NIOSH, and sort of figure out what may make  
8 sense to do. And it may be worthwhile just  
9 doing a short Work Group call to talk about  
10 priorities and, also, what is reasonable in  
11 terms of resources, and so forth.

12 But I think it is also important,  
13 you know, to figure out what next year's  
14 budget is, and so forth, I think it is  
15 important to get some of these things, sort  
16 of what is going to be a priority to get done  
17 and get those on the table for next year.

18 MEMBER RICHARDSON: Yes, I agree.

19 CHAIRMAN MELIUS: Yes, yes.  
20 Okay. Thank you very much.

21 The SEC Evaluation we have

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1 already talked about. 197

2 The TBD 6000 we will be hearing  
3 from later, but go ahead.

4 MEMBER ZIEMER: Well, yes, we are  
5 scheduled to discuss General Steel Industries  
6 tomorrow. But I also wanted to report on  
7 Simonds Saw, which is under our purview, and  
8 I will do that very briefly.

9 On Simonds Saw, we had seven  
10 findings from SC&A that were being addressed  
11 by NIOSH. Five of those the Work Group has  
12 already dealt with and have pretty well taken  
13 care of.

14 Finding 6, the NIOSH response was  
15 delivered to the Work Group on September  
16 30th, and we have not yet addressed that.

17 Finding 7, NIOSH is still -- let  
18 me first say Finding 6 has to do with  
19 external dose during the residual period.  
20 Finding 7 has to do with internal dose during  
21 the residual period.

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1                   The Finding 7 response, NIOSH ~~is~~<sup>is</sup>  
2                   still working on that. And I just made the  
3                   decision, because the Work Group met  
4                   recently, and we are focusing currently  
5                   primarily on General Steel, and I thought it  
6                   would be best to wait until the Finding 7  
7                   response was ready, and then, we will deal  
8                   with both external and internal for the  
9                   residual period as soon as that finding is  
10                  completed or that response is completed.

11                  And again, I don't recall -- I  
12                  did look at the schedule -- and I don't  
13                  recall when that was expected to be  
14                  completed, but I think it is fairly soon. I  
15                  just don't recall the date. And I don't  
16                  think it is critical right now, but we will  
17                  schedule that discussion as soon as we get  
18                  that last piece of information.

19                  CHAIRMAN MELIUS:     Okay.     Thank  
20                  you.     Thank you, Paul.

21                  Henry, any additional on 6001

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1 other than tomorrow? 199

2 MEMBER ANDERSON: No. Tomorrow's  
3 presentation is our last activity. We do  
4 have, it sounds like, some other sites that  
5 are going to be coming to us to look at.

6 CHAIRMAN MELIUS: Well, yes.

7 MEMBER ANDERSON: But we haven't  
8 received --

9 CHAIRMAN MELIUS: Especially now  
10 that you have admitted this is your last  
11 activity.

12 MEMBER ANDERSON: Right. We are  
13 anxious to start something else.

14 CHAIRMAN MELIUS: Oh, okay.  
15 Thank you. We appreciate that.

16 MEMBER ANDERSON: Yes.

17 CHAIRMAN MELIUS: Weldon Spring,  
18 Dr. Lemen.

19 MEMBER LEMEN: There is nothing  
20 new on it.

21 CHAIRMAN MELIUS: Are there any

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1 reports, waiting on reports or anything? 200

2 MEMBER LEMEN: Not at this time  
3 that I am aware of.

4 CHAIRMAN MELIUS: Worker  
5 Outreach, Josie.

6 MEMBER BEACH: Worker Outreach is  
7 kind of on the back burner right now. We are  
8 waiting for NIOSH's review, the draft review  
9 for LANL. We are still on the schedule;  
10 however, no date has been given for that.

11 CHAIRMAN MELIUS: Can somebody  
12 help me with a date? I saw LaVon run for the  
13 door.

14 Worker Outreach.

15 MR. RUTHERFORD: What is the  
16 question?

17 MEMBER BEACH: Oh, I didn't have  
18 a question, so much as we are on the  
19 schedule, but there is no date associated  
20 with the review, to SC&A's draft review for  
21 LANL, worker evaluations.

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1                   CHAIRMAN MELIUS:       That's <sup>an</sup> ~~201~~  
2                   oxymoron.   How can you be on the schedule  
3                   without a date?

4                   MEMBER BEACH:   Well, let me tell  
5                   you.

6                   MR. RUTHERFORD:  They are working  
7                   on a schedule for that right now, if you see  
8                   that scheduling review.

9                   And part of that is due to the  
10                  fact that ORAU was running out of money and  
11                  couldn't really task anything at this point.

12                  MEMBER BEACH:   Sure.

13                  And stay up there, since you're  
14                  up there, because Mound has fallen off the  
15                  schedule, although I do know there is some  
16                  outgoing Site Profile issues, which we are  
17                  going to talk about some more tomorrow.  But,  
18                  since you are keeper of the schedule --

19                  MR. RUTHERFORD:  Do you want me  
20                  to put Mound back on?

21                  MEMBER BEACH:   Well, yes, we do

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1 have some Site Profile issues that he worked  
2 on.

3 MR. RUTHERFORD: See, I think Jim  
4 Neton, since he was in charge of that, he  
5 had --

6 DR. NETON: I could speak to  
7 that. The remaining Site Profile issue that  
8 I am holding up right now is the  
9 neutron/photon ratio calculation. We have  
10 gone back, and I have had some problems with  
11 the technical approach, frankly. And we sent  
12 it back to the drawing board twice now. It  
13 is due back for our review, I think, in early  
14 November sometime, maybe mid-November. And I  
15 think it will be satisfactory this time.

16 I went back and actually looked  
17 at the original MESH database and tried to  
18 figure out what was causing some of these  
19 pretty erratic values that were being  
20 generated. And it had to do, without getting  
21 too technical, with some of the extreme ends

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1 of the distribution. So, I expect that to be<sup>203</sup>  
2 out the door in November, I think.

3 CHAIRMAN MELIUS: Okay. Thanks.  
4 Thanks, Jim. Thanks for taking  
5 responsibility as well as resolving it.

6 MEMBER LEMEN: Can we go back to  
7 Weldon Spring for a second?

8 CHAIRMAN MELIUS: Yes, I'm about  
9 to. Go ahead.

10 MEMBER LEMEN: Because I need to  
11 ask NIOSH what's going on, because nothing  
12 has happened.

13 CHAIRMAN MELIUS: LaVon?

14 MEMBER LEMEN: It is kind of in  
15 limbo.

16 CHAIRMAN MELIUS: So, LaVon runs  
17 to the door?

18 MEMBER LEMEN: LaVon, what's  
19 going on? LaVon, what are you doing with  
20 Weldon Spring?

21 MR. RUTHERFORD: I'm trying to

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1 help my boss with the media out there, 201  
2 guess.

3 But what was the question?

4 MEMBER LEMEN: What is the latest  
5 status with you all on Weldon Spring, because  
6 it is kind of in limbo as far as the --

7 MR. RUTHERFORD: Well, it is  
8 actually not a DOL issue. It is actually an  
9 issue with -- it was sent to HHS for  
10 administrative review, and it is still under  
11 administrative review at this time.

12 MEMBER LEMEN: Yes. I thought,  
13 as far as the Board was concerned, we had no  
14 other work on it, right?

15 MR. RUTHERFORD: We have no other  
16 actions at this time.

17 MEMBER LEMEN: Okay. Thank you.

18 CHAIRMAN MELIUS: We won't call  
19 you back until you're outside. Okay.

20 So, that finishes up our Work  
21 Groups. So, what we will have left -- and I

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1 think it will probably take some time, so<sup>205</sup>  
2 would rather do that tomorrow -- will be the  
3 public comment period, which are those two  
4 files. There are actually two Word files  
5 that have some embedded spreadsheets in them.

6 So, they are a little bit confusing in terms  
7 of how we refer to them. But we will have  
8 those to deal with.

9 We will have the possible SEC  
10 letters to go through. And then, we have  
11 Mound to finish up, I think. And I think  
12 that's it for tomorrow, but we will do that.

13 So, why don't we take a break  
14 now? And we will reconvene exactly at three  
15 o'clock sharp for the Rocky Flats discussion.

16 (Whereupon, the above-entitled  
17 matter went off the record at 2:37 p.m. and  
18 resumed at 3:00 p.m.)

19 CHAIRMAN MELIUS: Okay. Just to  
20 give everybody a sense of the schedule coming  
21 up, first, we will have a presentation from

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1 NIOSH on their Revised Evaluation Report ~~206~~  
2 Revision 1 of the report.

3 That will be followed by a report  
4 from the Work Group Chair, and there will be  
5 sort of questions from the Board possibly for  
6 both of those presentations.

7 We will, then, also hear from the  
8 petitioner about this.

9 Then, we also have a letter we  
10 need to read into the record for the meeting  
11 from the Colorado congressional delegation.

12 And then, we will have the Board  
13 deliberation on the recommendation from NIOSH  
14 that is in their Revised Evaluation Report.  
15 So, there is that.

16 And then, we will be opening up  
17 for a public comment period, do that. If you  
18 want to make public comments, we ask you to  
19 sign up out at the desk out in the hallway  
20 outside here, so you get on the list, because  
21 we tend to follow that list in the order that

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1 people signed up, though we will give  
2 precedence to people that are commenting on  
3 the Rocky Flats. And then, we will do  
4 others, and so forth, and do that.

5 And we will talk a little bit  
6 more later on, after we have gone through  
7 some of these deliberations, about what would  
8 be particularly helpful in terms of  
9 information or public comments we receive.

10 So, we will start with LaVon  
11 Rutherford will give his presentation.

12 MR. RUTHERFORD: All right.  
13 Thank you, Dr. Melius.

14 I'm LaVon Rutherford. I'm the  
15 Special Exposure Cohort Health Physics Team  
16 Leader for NIOSH, and I am going to discuss  
17 our revision to the Rocky Flats Plant  
18 Evaluation Report.

19 A little background: we issued  
20 our Rev 0 of this report. It was issued on  
21 September 5th of last year. Many of you will

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1 remember we actually presented that  
2 Evaluation Report on September 18th in  
3 Denver.

4 Our initial recommendation was to  
5 not add a Class. That evaluation was based  
6 solely on tritium exposures for periods of  
7 1952 through, basically, 2005.

8 The Advisory Board concluded  
9 follow-up work would be required. They  
10 turned the actual Evaluation Report over to  
11 the Work Group and SC&A to do some additional  
12 work, as well as NIOSH.

13 Okay. Since the Evaluation  
14 Report presentation, we have conducted a  
15 variety of follow-up efforts that identified  
16 additional issues. Those additional issues  
17 have been discussed somewhat during Work  
18 Group meetings throughout the year, February  
19 20th, July 8th, and September 12th.

20 Based on some of those issues, we  
21 felt that a revision to the Evaluation Report

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1 was necessary. So, we revised the Evaluation<sup>209</sup>  
2 Report to incorporate those new findings.

3 On September 30th, we issued or  
4 sent the Revised Evaluation Report to the  
5 Advisory Board. And October 4th, after it  
6 cleared agency review, it was sent to the  
7 petitioners.

8 The follow-up efforts, really, we  
9 did a number of things. We did additional  
10 data captures, both classified and  
11 unclassified. The classified data captures  
12 provided us a lot of good information. Those  
13 data captures were at Los Alamos National  
14 Lab, OSTI, EMCBC, the Department of Energy  
15 Legacy Management, and we also had secure  
16 discussions, secure interviews and other  
17 interviews, about 19.

18 The secure interviews provided a  
19 lot of good information that allowed us to do  
20 additional data capture research. We took  
21 the interview information and, from that, we

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1 could actually do specific searches for data<sup>210</sup>  
2 and information.

3 We also did additional dose  
4 reconstruction modeling.

5 The main issues that were  
6 identified during the post-evaluation were we  
7 had follow-on efforts or follow-on evaluation  
8 required on the tritium issues. We also had  
9 the petitioner provided a document that  
10 indicated a potential data falsification or  
11 data invalidation. We also had identified  
12 that there was work going on with U-233 and  
13 thorium strikes, neptunium, and other thorium  
14 activities. I will discuss those in a little  
15 more detail, why we got into those during the  
16 post-evaluation.

17 The issues that resulted in the  
18 Evaluation Report revision, normally, what we  
19 would do would be issue White Papers if it  
20 basically supported our initial  
21 recommendation. However, in this case we had

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1 three issues that we felt that ultimately<sup>211</sup>  
2 would change our recommendation to the  
3 Advisory Board.

4 U-233/thorium strikes, we had  
5 classified interviews indicating that the  
6 number of strikes were greater than  
7 previously evaluated under SEC-0030. We also  
8 had in Hanford infeasibility associated with  
9 U-233 that we felt like we needed to look and  
10 do some comparisons to those.

11 Neptunium, it was not clearly  
12 evaluated under SEC-0030. And also, again,  
13 Hanford, we had a Class we added up to 1983  
14 at Hanford that the isotopes that drove that  
15 infeasibility were U-233, neptunium, and  
16 thorium. So, we were looking at those  
17 activities over the same time period.

18 And then, other thorium  
19 activities: classified review indicated  
20 there may have been additional work with  
21 thorium not previously evaluated.

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1                   Okay. So, tritium. Our follow<sup>w</sup><sub>2</sub>  
2 up efforts on tritium, we were basically  
3 looking, can we come up with a better dose  
4 reconstruction approach than the bounding  
5 1973 incident that we were using of 700  
6 millirem over all times? So, we did  
7 additional research associated with coming up  
8 with that information.

9                   We issued a White Paper on June  
10 25th. We concluded in that White Paper this  
11 same thing that we concluded previously, that  
12 dose reconstruction associated with tritium  
13 was feasible.

14                   We provided that White Paper to  
15 the Work Group on June 26th and the  
16 petitioner on July 3rd, after a completed ADC  
17 review. And we presented that to the Work  
18 Group and the petitioners on July 8th during  
19 the Work Group meeting.

20                   During that discussion, the Work  
21 Group and the petitioner had very little time

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1 to review that. So, there were some  
2 preliminary follow-on questions that were  
3 provided by SC&A, but the actual detailed  
4 review completed by SC&A was not done at that  
5 time.

6 The Work Group and SC&A did  
7 discuss that paper further, and SC&A provided  
8 findings or comments on that at the September  
9 12th Work Group meeting.

10 A little background, tritium-  
11 related operations: tritium-contaminated  
12 materials from returned units was a potential  
13 exposure point. That was actually identified  
14 during the initial evaluation. However,  
15 during the follow-on efforts, we got during  
16 our classified interviews and research, we  
17 had a little more information. I will get  
18 into that.

19 Neutron generator targets, they  
20 contained tritium. However, we concluded  
21 that they were non-exposure potential because

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1 of the sealed units, and maintenance was done<sup>214</sup>  
2 by factory-authorized reps.

3 And we also had the potential  
4 production of tritium from various  
5 radioactive materials present onsite.  
6 However, we determined that this was not a  
7 significant source of exposure.

8 From our additional data captures  
9 and interviews, we identified and confirmed  
10 potential for tritium exposure from  
11 contaminated shipping containers. This was  
12 not originally seen in our Rev 0 evaluation.

13 Actually, one of our classified interviews  
14 brought this up, and when we did additional  
15 research on the actual contaminated shipping  
16 containers, we actually found documents that  
17 supported that.

18 We also supported our previous  
19 findings that all known incidents involving a  
20 tritium release were below the release levels  
21 from the 1973 incident, and we did not

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1 identify any other sources of tritium<sup>215</sup>  
2 exposure that were not previously evaluated  
3 other than shipping containers.

4 Tritium time periods evaluated.  
5 I have a correction here. It says, "from  
6 1959 through 1972". That actually should be  
7 "1957". The first units were returned in, or  
8 they set up, they had the potential to  
9 receive returned units in 1957. So, 1957  
10 through 1972.

11 The ChemRisk Report does identify  
12 the potential for tritium exposure all the  
13 way back to the beginning of operations in  
14 1952. However, based on what we were seeing  
15 in 1957 on the returned units, that is when  
16 the greatest potential started.

17 Also, during 1973, that was  
18 another period, and that is when the actual  
19 incident occurred, and post-1973. So, we  
20 have broken it down into three periods of  
21 potential exposure.

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1                   Actually, we will just call this <sup>216</sup>  
2                   the pre-1973 period. Based on interviews and  
3                   document reviews, NIOSH believes that the  
4                   most likely chronic exposure scenario was  
5                   from opening and working with shipping  
6                   containers that contained units returned from  
7                   other sites. So, they were initially opened,  
8                   and then, they actually opened -- the inner-  
9                   containers were opened again. And so, you  
10                  had a potential exposure scenario from that.

11                  As you may recall, we have very  
12                  little tritium monitoring data prior to 1973.

13                  And so, we do not have any good incident  
14                  information from a release. However, we do  
15                  have an incident August 30th of 1974, shortly  
16                  after the 1973 incident, where 1.5 curies of  
17                  tritium was released from a shipping  
18                  container.

19                  We felt that this 1974 incident  
20                  would be a good incident to use. The  
21                  background levels prior to the incident being

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1 measured were basically dosimetrically<sup>217</sup>  
2 insignificant. There was no residual from  
3 the 1973 incident that would actually cut  
4 down on the exposure scenario.

5 The quantity released was  
6 probably more typical of a release from a  
7 shipping container, and the tritium was  
8 released in the workplace environment and not  
9 in a glove box. So, we felt like this was  
10 more typically what they would have seen just  
11 opening a shipping container with returned  
12 units.

13 Also, the release involved  
14 elemental tritium and not tritium oxide, and  
15 the incident occurred close enough to the  
16 1973 incident that workplace controls were  
17 likely similar to prior to 1973. That is a  
18 question with SC&A right now, and we are  
19 working through that issue with SC&A.

20 SC&A questions whether the 1974  
21 incident is truly a good incident for this

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1 bounding scenario, mainly because the 1974  
2 incident, there is a letter that apparently  
3 occurred prior to the 1974 incident that  
4 drove additional controls from sites, and  
5 that would have possibly limited that  
6 exposure from that incident, which would  
7 prevent it from being a good incident to use,  
8 as well as this returned unit was from  
9 Battelle, where most of the returned units  
10 that they were receiving were from Pantex.  
11 So, that is under question. We are working  
12 with that right now.

13 Monitoring data from the 1974  
14 incident. Air samples from June through  
15 September of 1973. So, they were monitoring  
16 continuously at this time. Average  
17 concentration you can see, 5,343 to plus or  
18 minus 4,519 picocuries per meters cubed.

19 The concentration on August 30th  
20 jumped up to 37,676,000. And then, we had  
21 bioassay samples indicating a high result of

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1 32,000 picocuries per liter. Then, we have  
2 work area smears, over 200.

3 So, the dose assessment from the  
4 1974 incident, we basically took the largest  
5 reported urine sample of 32,000 picocuries  
6 per liter. We used IMBA, and the resulting  
7 dose from that was less than 1 millirem. It  
8 was about .15 millirem. If we assume one  
9 incident per day for 250 days per year, this  
10 results in 37.5 millirem per year. So, we  
11 basically assume this occurs every day, every  
12 workday for the average worker over the year  
13 and all the way back through that period.  
14 So, we have used the 37.5 millirem per year.

15 All unmonitored workers for tritium will be  
16 assigned 37.5 millirem for all years prior to  
17 1973.

18 The 1973 incident, so our annual  
19 dose that we would assign for 1973 is based  
20 on the 1973 incident. The incident occurred  
21 from April 9th through April 25th, when a

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1 shipment of scrap plutonium from Lawrence  
2 Livermore was processed at Rocky Flats. The  
3 incident was not immediately identified. So,  
4 individual monitoring did not begin until  
5 September. So, you had a lengthy period of  
6 April to September before it was recognized  
7 and monitoring occurred.

8 Approximately 250 people were  
9 bioassayed for tritium. Initially, 19 were  
10 identified with elevated tritium. Upon  
11 recheck, five were above the 10,000 picocurie  
12 per liter action level.

13 And this information is mostly  
14 the same from Rev 0. However, we did refine  
15 our analysis a little bit.

16 The five cases exceeding 10,000  
17 picocuries per liter were reviewed from the  
18 Final Incident Report. All cases were  
19 modeled. This is stuff that we did. All  
20 cases were modeled to determine the best fit  
21 for the urine data, which they would be given

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1 the most likely dose. 221

2 The highest that we got was 84  
3 millirem from Case H. This was an individual  
4 that we only had one bioassay sample. So,  
5 that limited our ability to actually model  
6 the actual exposures. So, we had to do a  
7 worst-case intake on the first day of the  
8 event. And that did come up with 84 millirem  
9 versus the 700 that we had previously  
10 identified. So, from 1974, for all  
11 unmonitored workers who were not monitored  
12 for tritium, that is, they would be assigned  
13 the 84 millirem.

14 A coworker analysis was performed  
15 using 1974 and 1975 tritium bioassay data.  
16 We had 38 individuals with tritium data in  
17 1974 and 37 in 1975. Because tritium was  
18 only present as a potential contaminant,  
19 groups of individuals were not placed on  
20 routine bioassay for tritium. However, they  
21 felt that the most likely individuals that

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1 would receive tritium exposure would be those<sup>222</sup>  
2 who were being exposed to plutonium who were  
3 on the plutonium urine sampling program. So,  
4 one-tenth of the urine samples collected  
5 before plutonium were analyzed for tritium.  
6 Also, these samples, when they had  
7 indications of possible incident or whatever,  
8 they would do additional sampling at that  
9 time.

10 So, our dose assessment for 1974  
11 and 1975, it was assumed each worker had  
12 potential for exposure throughout the year.  
13 The 95th percentile was used because only  
14 one-tenth of the population was sampled.  
15 That coworker study resulted in a dose of  
16 zero millirem for everyone. So, that period  
17 of 1974 to 1975, that coworker analysis  
18 showed up, basically, from the bioassay  
19 samples, that there would be no exposure.  
20 And so, we assumed for the post-1974 period  
21 that the unmonitored workers would be given

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1 the same zero millirem for that period for  
2 tritium, because we did have some data after  
3 1974 and 1975, and it was consistent with  
4 that 1974 and 1975 data.

5 Okay. Thorium. In SEC-0030, our  
6 position was that documents supported the  
7 thorium quantities present at Rocky Flats  
8 were not in high enough quantities to  
9 contribute significantly to internal dose  
10 potential.

11 As stated in NIOSH's original  
12 SEC-0030 evaluation, thorium was used onsite  
13 and in quantities small enough that effluents  
14 were not routinely analyzed. Thorium  
15 quantities varied from as little as none to  
16 as much as 238 kilograms in a given month.

17 Thorium was used in a variety of  
18 processes, including fabrication of metal  
19 parts from natural thorium or thorium alloys;  
20 use of oxide as a mold-coating compound;  
21 numerous analytical procedures and in

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1 research and development, and as a substitute<sup>224</sup>  
2 for uranium/plutonium components in research  
3 and development. These last two were not  
4 really processes involving thorium, but the  
5 removal of thorium-228 from U-233, and then  
6 the magnesium thorium alloy. This was  
7 brought up by the petitioner as a potential  
8 concern at Rocky Flats. It was actually  
9 discussed as a potential item all the way  
10 back in the Dow SEC period or discussions.  
11 The magnesium thorium alloy work is not  
12 addressed in this evaluation. However, we  
13 are continuing to work that issue.

14 Most of the work associated with  
15 thorium during the SEC-0030 evaluation was  
16 focused on specific activities that occurred  
17 in the 1960s. If you go back and you look at  
18 that information, you will see that virtually  
19 all the discussion was focused on 1960-66, in  
20 that time period. However, we know -- and I  
21 don't want to jump the gun, actually. I will

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1 get into that. 225

2 Based on interviews and document  
3 reviews, NIOSH decided to reevaluate the  
4 thorium issue. During our review, documents  
5 supported that activities involving thorium  
6 occurred as far back as 1952. It was already  
7 previously identified in the ChemRisk Report  
8 that thorium was onsite as far back as 1952.

9 We also went back, we did  
10 additional research. We had some inventory  
11 information that supported that inventories  
12 were onsite as far back as 1952, and  
13 inventories were maintained all the way up to  
14 1971.

15 And you could see from the  
16 monthly progress reports that we reviewed --  
17 and some of these were only recently gathered  
18 over the last year or so -- that they had a  
19 concern of potential personnel exposure all  
20 the way back at 1954, where they were looking  
21 at monitoring approaches for thorium.

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1                    Changing inventories in these <sup>226</sup>  
2                    early years supported that work with thorium  
3                    was occurring during this period. So, you  
4                    had some inventory information, actually,  
5                    monthly inventory information, that those  
6                    inventories were going up and down, that  
7                    indicated there were activities that were  
8                    occurring. However, those activities were  
9                    not well-defined.

10                    So, activity and process  
11                    involving thorium were not well documented in  
12                    the early years, nor was the throughput. And  
13                    throughput becomes a theme with not only  
14                    thorium, but neptunium as well. You can  
15                    identify inventory numbers on a monthly  
16                    basis, but those inventory numbers, unless  
17                    you see the inputs and the outputs over a  
18                    given time period, the inventory numbers are  
19                    only a snapshot in time. It doesn't address  
20                    what is actually a throughput during that  
21                    period. And I will give you an example of

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1 that later on in the discussion. 227

2 Based on NIOSH's review of the  
3 NMMS database, no significant inventories of  
4 thorium existed at Rocky Flats after 1971.  
5 Documents do indicate that thorium solutions  
6 existed up through 1974.

7 Rocky Flats Plant personnel  
8 monitoring approach for thorium. They were  
9 developing a thorium monitoring approach  
10 through the 1950s and the 1960s. And there  
11 was no clear routine monitoring program for  
12 thorium at Rocky Flats. We have personal and  
13 area air samples from 1960 and it says, but  
14 no activity results. What this means is we  
15 actually had a logbook that identifies where  
16 they took thorium air samples, and it  
17 indicates thorium, the volume, and it  
18 indicates the time.

19 However, there are no activity  
20 concentrations that are given with it. There  
21 are no activity numbers, that we could come

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1 up with anything from that. So, we have that <sup>228</sup>  
2 in a 1960 report. We have two bioassay  
3 samples in 1966, and we have a couple of  
4 sporadic air samples through that period as  
5 well.

6 We also went back and looked at  
7 SEC-0030, and we were reviewing our use of  
8 the surrogate data in the thorium ingot  
9 operation in 1960. Those that will remember,  
10 this approach, we went through a number of  
11 different approaches for this thorium ingot  
12 operation. And ultimately, because SC&A did  
13 not feel NUREG-1400, nor did we really, was a  
14 good approach, we looked at using surrogate  
15 data. This surrogate data was vetted in  
16 2007, before the criteria was established for  
17 surrogate data under IG-004, which was  
18 established in 2008.

19 What we did, we went back and we  
20 looked at that data that we used. And that  
21 data was from a study conducted at the Albany

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1 Research Center. This was a one-time<sup>229</sup>  
2 operation that was conducted under  
3 experimental laboratory conditions.

4 So, it was controlled conditions  
5 which we would typically not use under a  
6 surrogate data. What we try to use under  
7 surrogate data is the same types of  
8 operations and something of a production  
9 standpoint or similar. And in this  
10 situation, we did not. So, we didn't feel  
11 that that was a good approach.

12 So, our feasibility determination  
13 associated with thorium was activities  
14 involving thorium in the 1950s and early  
15 1960s were not well-defined. They lacked  
16 sufficient personnel and area monitoring, and  
17 surrogate data used does not meet the  
18 criteria for IG-004.

19 Therefore, we find it is not  
20 feasible to reconstruct thorium exposures  
21 from 1952 through 1966. We do intend to use

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1 any relevant internal monitoring data that <sup>230</sup>  
2 may become available for individual claims.

3 All right. The next item is  
4 U-233 thorium strikes. Okay. Exposure  
5 during U-233 thorium strikes was originally  
6 evaluated under the SEC-0030 evaluation,  
7 reopened under SEC-0192 after indications  
8 that this may have occurred more than the two  
9 times previously identified. If you  
10 remember, 1965 and 1967 were the two times  
11 that were identified as thorium strikes, and  
12 we evaluated those under SEC-0030.

13 U-233 was being evaluated for its  
14 use in the weapons program. However, the  
15 problem was U-233 was a contaminant of U-232.

16 U-232's progeny posed a significant external  
17 exposure hazard, which required these thorium  
18 strikes. The thorium strikes would remove  
19 the thorium-228 and its progeny to reduce the  
20 external hazard, and then, the U-233 could be  
21 processed.

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1                   SEC-0030 assumed a U-233 exposure<sup>231</sup>  
2                   was covered with uranium bioassay. I will  
3                   discuss that further. So, basically, under  
4                   SEC-0030, they said, well, you know what?  
5                   We've got plenty of uranium bioassay. We can  
6                   cover U-233 with that. We won't deal with  
7                   that. We don't have to deal with that so  
8                   much.

9                   During the deliberation of  
10                  SEC-0030, the bounding thorium dose was based  
11                  on air sampling taken during the strike in  
12                  1965. This strike was considered bounding  
13                  because it had the highest concentration of  
14                  U-232 of the two strikes. The 1965 period,  
15                  the uranium-232 concentration was 50 ppm,  
16                  which was higher than the 1964, which was  
17                  down in the 40s, and in the post-period after  
18                  1965. And our approach was no credit was  
19                  taken for ventilation hoods or time limits.

20                  The reason we revisited this was  
21                  mainly during our discussions, during the

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1 classified interviews, it became apparent<sup>232</sup>  
2 that there was a good chance that there were  
3 additional strikes beyond the two that were  
4 previously evaluated and, ultimately,  
5 supported in other documents. So, the  
6 question came up, since there were more  
7 strikes than the two evaluated, were these  
8 additional strikes still bounded by the 1965  
9 exposure analysis.

10 Other questions came up based on  
11 the recent addition of Class at Hanford based  
12 on inability to reconstruct doses to U-233.  
13 And our questions were: were the activities  
14 similar at Rocky Flats and Hanford, were the  
15 material quantities similar, how much  
16 monitoring data do we have in comparison?

17 So, we still believe that the  
18 1965 strike is still bounding for thorium.  
19 And I will get into this a little more.  
20 Because most documents indicate that U-233  
21 was to be processed or shipped offsite prior

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1 to the 90-day period to prevent the hazard<sup>233</sup>  
2 ingrowth and, therefore, a strike would not  
3 be required.

4 So, basically, after the early  
5 operations, they learned that, okay, we get  
6 it in, we get it processed within a period of  
7 time. A thorium strike is not required.

8 Documents indicate the  
9 concentration of U-232 did not exceed 8 ppm  
10 after 1965. So, in 1965, we had the higher  
11 concentration, 50 ppm. After that period,  
12 they did not have any beyond the 8 ppm. So,  
13 that still supports our 1965 bounding.

14 The problem we get into is with  
15 these additional strikes, and we also had a  
16 question. The air sampling that was used  
17 under SEC-0030, after further review, it  
18 appeared that air sampling was actually taken  
19 after the thorium strike, which would have  
20 been associated more with U-233 operations.

21 We went back. We reviewed

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1 logbooks. We did interviews. And even<sup>234</sup>  
2 though some interviews supported that they  
3 were correct, the documentation and all the  
4 other information supported that it was not  
5 correct.

6 So, we ultimately went back to  
7 the site, or went back to the Denver Records  
8 Center, since the site doesn't exist, and we  
9 requested additional air sampling data for  
10 that period. We did get additional air  
11 sampling for that 1965 period.

12 The questions still around this  
13 are, if we know that there are more than the  
14 one or two strikes that were previously  
15 identified, how often do we assume a strike  
16 occurred? Who all do we apply this strike  
17 to? And it becomes very difficult.

18 The other end of this  
19 U-233/thorium strike issue is the U-233  
20 itself. The quantities of U-233 onsite at  
21 Rocky Flats varied from 1964 to the end of

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1 operations in 1983. 235

2 Estimates available -- these are  
3 unclassified estimates, by the way --  
4 estimates available indicate quantities could  
5 have been from 1 kilogram to 150 kilograms  
6 from 1965 through 1983. The highest  
7 quantities existed from '65 to '68.

8 We have bioassay data -- uranium  
9 exists and a uranium coworker model exists  
10 for the period of concern. So, again, under  
11 SEC-0030, we think that the uranium bioassay  
12 and coworker model could be used in some  
13 manner to support our U-233 exposures.

14 So, our initial idea was to give  
15 a corrected uranium dose to all workers with  
16 uranium bioassay. Our assumption was based  
17 on -- we assumed that all workers who worked  
18 on U-233 activities would have a uranium  
19 bioassay. The difficulty in proving that is,  
20 can you go back and determine who was working  
21 on the U-233 operations?

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1                   One good thing we had was we had<sup>236</sup>  
2                   a logbook from an individual that identified  
3                   46 individuals in '65 or '66 -- I can't  
4                   remember for sure -- that were working  
5                   specifically with neptunium at that time. I  
6                   know that some people think that the  
7                   neptunium work was small-scale, but there  
8                   were 46 individuals working on this in '65-  
9                   '66.

10                   And we decided, of those 46  
11                   individuals, let's go back and let's look and  
12                   see if we have claims in NOCTS of those  
13                   individuals. And if we do, let's look and  
14                   see if they have uranium bioassay. If they  
15                   have uranium bioassay, that will give us at  
16                   least one step towards validating that  
17                   individuals that were working with U-233 had  
18                   uranium bioassay.

19                   And of the 18 claimants, 17 had  
20                   uranium bioassay. That is a pretty good  
21                   number, 17 out of 18. There is one

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1 individual that did not have bioassay<sup>237</sup>  
2 uranium bioassay, and we could not come up  
3 with a good reason why. This individual was  
4 -- well, I'll just say -- I don't want to get  
5 into Privacy Act information. But there is  
6 no good reason why this individual wouldn't  
7 have had bioassay. And we couldn't come up  
8 with one.

9 So, ultimately, we have no way of  
10 validating that workers that were working  
11 with U-233 had uranium bioassay. That was  
12 one difficulty we had.

13 We could not identify all workers  
14 who had worked with U-233 through the years  
15 of operations. We have a list of workers in  
16 the 1965-66 -- like I said, I can't remember  
17 -- of 46 workers. However, remember, U-233  
18 operations were 1964 up through 1983.

19 So, if we used the uranium  
20 coworker, we would have to assume all workers  
21 could have been exposed and a correction

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1 factor for exposures to U-233 and U-~~232~~<sub>238</sub>  
2 applied. And recognize that factor could  
3 vary significantly -- if the uranium bioassay  
4 -- because we had uranium bioassay that was  
5 both mass-based and we had activity-based.

6 Now, mass-based activity would  
7 significantly -- if we assumed the U-233,  
8 would really drive up the actual intake  
9 values. Also, U-233-specific activity is  
10 approximately 140 times of U-235. So, it's a  
11 very high specific activity, something closer  
12 along the lines with plutonium.

13 Because of that, the operations  
14 would be handled differently. Therefore, in  
15 our opinion, that did not support that using  
16 uranium bioassay operations would be  
17 indicative of what you would see from U-233  
18 operations.

19 Our personal and area monitoring,  
20 we have no U-233-specific bioassay data. We  
21 have no thorium-228-specific data. We do

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1 have one set of U-233-specific air samples<sup>239</sup> in  
2 1965, and those were actually the ones that  
3 were previously identified as potential  
4 thorium samples. And we do have a uranium  
5 coworker, but cannot use that.

6 Therefore, based on that, our  
7 feasibility findings -- or NIOSH finds it is  
8 not feasible to completely reconstruct  
9 internal U-233, U-232, thorium-228 radiation  
10 doses from the period of 1964 through 1983.

11 And I want to point out again --  
12 I said this earlier -- that this is roughly  
13 the same period that we added at Hanford for  
14 virtually the exact same items. We do intend  
15 to use any related internal monitoring data  
16 that may become available for individual  
17 claims.

18 Okay. Neptunium. Our general  
19 conclusion under SEC-0030 was neptunium was  
20 used in small quantities for research-type  
21 work and had limited exposure potential

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1 compared to uranium and thorium. The  
240  
2 determination was made to re-explore this  
3 exposure situation based on interviews and  
4 our recent determination associated with  
5 neptunium at Hanford.

6 Records indicate that neptunium  
7 was processed at Rocky Flats as early as 1962  
8 and inventories existed up until 1988.  
9 Neptunium was processed to produce pure  
10 neptunium oxide, metal, and metal alloys.  
11 Processes employed included dissolution,  
12 anion exchange, precipitation, filtration,  
13 calcination, conversion to fluoride, and  
14 reduction to metal. So, it was basically a  
15 metal fabrication process.

16 Fabrication steps, such as  
17 casting and rolling, were performed to  
18 produce metal shapes and foils. Neptunium  
19 was also recovered from residual materials,  
20 including sand, slag, crucibles, casting  
21 skulls, and alloys. The residues were not

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1 only from Rocky Flats operations. These were <sup>241</sup>  
2 received from Lawrence Livermore and other  
3 sites.

4 Based on documents and  
5 inventories, it appears most work with  
6 neptunium was completed by the end of 1983.

7 Annual site inventories were  
8 typically maintained around 1 kilogram. And  
9 I put "does not address throughput." If you  
10 look at Figure 5.1 in our Evaluation Report  
11 -- and I couldn't put this in here because,  
12 one, I think I was going to get killed if I  
13 added another slide, and, two, it's such a  
14 big table.

15 But if you look at that table,  
16 that Figure 5.1, if you look at June of 1966,  
17 June of 1966 shows an inventory of roughly 1  
18 kilogram. We have two years where we have  
19 some quarterly inventories. So, June of 1966  
20 has roughly 1 kilogram. It goes to September  
21 of 1966, drops to zero kilograms. It goes to

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1 December of 1966, jumps up to 1.4 kilograms, <sup>242</sup>

2 So, over a nine-month period, your  
3 inventories changed 2.4 kilograms.

4 So, saying that inventories were  
5 maintained around 1 kilogram is to basically  
6 say that, if you had a store and your store  
7 was going to maintain a certain amount of a  
8 product, when an inventory of that could drop  
9 down, you would try to drive that inventory  
10 back up to maintain a certain inventory. It  
11 does not address the throughput used during  
12 that time period.

13 Am I getting my point across on  
14 that one?

15 CHAIRMAN MELIUS: Just keep  
16 going.

17 MR. RUTHERFORD: I look and I see  
18 some inquisitive minds, and I'm just  
19 wondering if I am getting my point across.

20 I want to point out that Rocky  
21 Flats was providing neptunium -- and that is

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1 in the Evaluation Report -- to Savannah<sup>243</sup>  
2 River, Lawrence Livermore, Oak Ridge National  
3 Lab, and I believe one other site as well.

4 So, batches involving neptunium  
5 typically did not exceed 300 grams.  
6 Buildings having neptunium inventories  
7 included -- and there is a list -- if you  
8 look at that, roughly, nine, I believe, nine  
9 buildings.

10 Neptunium exposure documents  
11 indicate some early work was conducted in  
12 open hoods, but most work was performed with  
13 glove boxes. Based on our review, neptunium  
14 exposure potential existed at virtually every  
15 processing step, including extraction and  
16 purification, hydrofluorination, reduction to  
17 metal, alloying, casting, and rolling.

18 Personal monitoring data. There  
19 are only two bioassay samples for neptunium.

20 They were taken in 1966. One was below a  
21 significant level, and the other was .9 dpm

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1 for 24 hours. Ultimately, a whole body count<sup>244</sup>  
2 was taken on that individual and there was no  
3 exposure detected. Gross alpha bioassay  
4 samples existed up until 1970.

5 Workplace monitoring data. We  
6 have found no workplace monitoring data that  
7 is specific to neptunium.

8 Our initial thought was, okay, we  
9 have this exposure potential with neptunium,  
10 and we have identified that the inventories,  
11 that there was a potential for exposure for  
12 the work or the different activities that  
13 were being performed. Can we use the gross  
14 alpha samples as an indicator for neptunium?

15 Basically, we know that they were doing  
16 gross alpha during the early years at Rocky  
17 Flats, up until the early '70s. Can we take  
18 that gross alpha sample, since you would  
19 think gross alpha would include neptunium as  
20 well as an alpha-emitter, and, ultimately,  
21 can we come up with a factor to bound our

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1 neptunium exposures? 245

2 Well, the immediate question that  
3 came up was, okay, what kind of initial  
4 things were done with the samples that could  
5 potentially affect our ability for that gross  
6 alpha sample to include neptunium? So, we  
7 interviewed two former Rocky Flats Plant  
8 employees involved. These individuals, one  
9 was in charge of the bioassay laboratory.  
10 Both of these individuals were heavily  
11 involved in the actual operations -- or the  
12 radiological -- the bioassay program at Rocky  
13 Flats.

14 We interviewed these two  
15 individuals, and we asked them, using the  
16 gross alpha samples, based on your procedures  
17 for doing the bioassay analysis, would you  
18 see the neptunium in those samples? The  
19 interviews indicated it would be  
20 questionable, based on the chemistry, whether  
21 you would see the neptunium in the sample.

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1 This was kind of the feeling we had<sup>246</sup>  
2 internally, but we weren't for sure.

3 Interviews indicated that the  
4 intent of the coprecipitation process used  
5 after 1961 for gross alpha analysis was to  
6 focus the analysis on specific radionuclides,  
7 typically uranium and possibly plutonium.  
8 One individual interviewed indicated that  
9 prior to 1961, that the entire sample was  
10 ashed and, ultimately, you would then see the  
11 neptunium in there. However, after 1961,  
12 just due to the cost and time spent in doing  
13 that, and the number of samples that were  
14 required to be processed, they went to this  
15 alternative method.

16 So, our feasibility determination  
17 is little to no personal or area monitoring  
18 data. We do have gross alpha samples, but it  
19 is not a viable means for estimating  
20 neptunium exposure. And there were too many  
21 different types of activities, including wet

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1 and dry process, to develop an exposure<sup>247</sup>  
2 model. You go through every one of the  
3 different metal production processes as well  
4 as -- then you throw in -- you get residual -  
5 - you get residues that are sent to the site  
6 from Savannah River, Lawrence Livermore, that  
7 are residues from different processes that  
8 they are retrieving the neptunium from. And  
9 for you to actually review the neptunium  
10 processing report, they talk about the number  
11 of different methods that they used in  
12 recovering the neptunium from those residues.  
13 So, based on these varying different  
14 activities, a source term model did not seem  
15 appropriate.

16 The quantities and activities  
17 associated with neptunium at Rocky Flats are  
18 similar to Hanford during the same time  
19 period. As I mentioned, when we went out to  
20 Hanford recently, in August, to look at the  
21 classified database, or classified documents,

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1 and looked at inventories, these inventories<sup>248</sup>  
2 are very similar for the exact same time  
3 period. And the activities are similar.

4 Based on this, NIOSH has  
5 concluded dose reconstruction is not feasible  
6 for neptunium exposures for the 1962 through  
7 1983 period.

8 Why stop at 1983? As I  
9 mentioned, the inventories existed up until  
10 1988. Based on our review, we see very  
11 little to no work occurred with neptunium  
12 after 1983. Inventories, as I mentioned, are  
13 not a good indicator, but inventories that we  
14 do have are relatively constant. They  
15 fluctuate by a few grams.

16 An 1981 document indicates that  
17 early work was done in open hoods, but later  
18 alpha containment was used. We have no  
19 indication of when the exact date of when  
20 additional containments were used, but we  
21 know, by 1981, based on this document, that

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1 it does appear that most things were <sup>in</sup> ~~249~~  
2 containment.

3 In vitro bioassay techniques  
4 improved by 1981. In vivo techniques  
5 improved by 1976. So, therefore, we feel  
6 like ending in 1983 is a good time period.  
7 We will continue to evaluate the 1984 to 1988  
8 period.

9 A little reminder on our current  
10 SEC Classes: there are two SEC Classes, but,  
11 in all reality, you could say they are one.  
12 It's April 1st, 1952, up through December 31  
13 of 1966 for all individuals that were  
14 potentially exposed or monitored or should  
15 have been monitored for neutron exposures at  
16 Rocky Flats.

17 Our feasibility determination, we  
18 find that internal dose cannot be estimated  
19 with sufficient accuracy from April 1 of 1952  
20 through December 31 of 1983. We do intend to  
21 use any related internal monitoring data that

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1 may become available for individual claims, 250  
2 and we will continue to evaluate the  
3 potential neptunium exposures for the 1984 to  
4 `88 period.

5 Our summary slide is we still  
6 feel tritium is reconstructable for the  
7 period, but we do not feel that thorium is  
8 reconstructable from 1952 through 1966.  
9 Uranium, U-233, `64 to `83, and neptunium,  
10 1962 to `83.

11 We did not address external  
12 exposures. External exposures were addressed  
13 under SEC-0030. And during our initial  
14 qualification and evaluation, we did not see  
15 any indication. And, actually, from Rev 0  
16 when we did our post-evaluation, we did not  
17 see any reason to go back and look at the  
18 external exposure scenarios.

19 So, our recommended Class is all  
20 employees at Department of Energy, its  
21 predecessor agencies, and their contractors

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1 and subcontractors who worked at the Rocky  
2 Flats Plant in Golden, Colorado, from April  
3 1, 1952 through December 31 of 1983 for a  
4 number of workdays aggregating at least 250  
5 days, occurring either solely under this  
6 employment or in combination with workdays  
7 within parameters established for one or more  
8 other Class of employees included in the SEC.

9 Remaining issues. There are  
10 still remaining issues that we are working  
11 with SC&A and the Work Group on.

12 As I mentioned, the data  
13 falsification question. We have put together  
14 an initial White Paper. It was reviewed.  
15 That White Paper was reviewed. There is  
16 still a classified interview that we are  
17 trying to set up. This interview came out of  
18 the last Board meeting, actually, and we have  
19 been working to get that individual's  
20 clearance reinstated and that interview set  
21 up. And it's probably going to be held up a

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1 little bit further, based on recent events,<sup>252</sup>  
2 But we are working to get that classified  
3 interview set up.

4 And then we are just going to  
5 continue to evaluate the 1984 through '88  
6 period for neptunium exposure. And we will  
7 evaluate the use and exposure potential for  
8 magnesium thorium alloy at Rocky Flats.  
9 Again, this issue was brought up by the  
10 petitioner, and we are going to look at that.

11 We are not sure if that use was done during  
12 the period that we are recommending the SEC  
13 or not, but we will figure it out.

14 And we've got to resolve open  
15 questions with SC&A and the Work Group  
16 concerning tritium. And that's it.

17 CHAIRMAN MELIUS: Okay. Thank  
18 you, LaVon. Questions for LaVon? Paul?

19 No, this is -- sorry, it's not  
20 public comment period. It's only for the  
21 Board Members. I'm sorry.

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1 MEMBER ZIEMER: Thank you, LaVon,<sup>253</sup>

2 That was a very good presentation.

3 I have a question the tritium  
4 exposure. I am a little puzzled about the  
5 `74-`75 coworker assignment of zero millirem,  
6 when you're indicating that you actually have  
7 data that shows some workers with doses from  
8 which I assume you get the coworker model.  
9 So, I am a little puzzled how you get a zero  
10 millirem in a coworker model.

11 MR. RUTHERFORD: This sounds like  
12 John Mauro's question. That is a very good  
13 question. John brought it up during our Work  
14 Group meeting. We are verifying right now  
15 that the actual bioassay samples that  
16 included the positive activity were included  
17 in our analysis. Once we have verified that,  
18 obviously, I would think that may have an  
19 effect. If it was not included, it would  
20 definitely have an effect to be included.

21 MEMBER ZIEMER: Yeah, in the

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1 coworker model you're picking some point on a <sup>254</sup>  
2 distribution.

3 MR. RUTHERFORD: Exactly.

4 MEMBER ZIEMER: And if that point  
5 is zero, it's a little puzzling what the  
6 distribution would look like.

7 MR. RUTHERFORD: I understand. I  
8 understand.

9 MEMBER ZIEMER: Or maybe I am  
10 missing something.

11 MR. RUTHERFORD: I had meant to  
12 bring that up as one of the open issues, and  
13 I'm sorry, I forgot about it. But, yes, it  
14 is, that is an open issue, and we are working  
15 through that one. Good question.

16 Actually, we were checking you,  
17 Dr. Ziemer, just see if you would pick up on  
18 that.

19 MEMBER ZIEMER: Yes, right.

20 DR. NETON: My assumption, I  
21 think, is that, when the doses were

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1       calculated, they were so small that they<sup>255</sup>  
2       essentially rounded down to zero. I mean,  
3       you could get -- obviously, a dose would not  
4       be zero if you had any positive --

5                   MEMBER ZIEMER:     That's fine, if  
6       that is the answer.

7                   DR. NETON:     I think that's the  
8       answer.

9                   MEMBER ZIEMER:     I know that the  
10      earlier doses were just like 37 millirem or  
11      something.

12                  DR. NETON:     Exactly.

13                  MR. RUTHERFORD:     But we still  
14      haven't verified that yet.

15                  DR. NETON:     We haven't verified  
16      that, but my guess is that they were  
17      something very small, very, very close to  
18      zero where it wouldn't be practical to start  
19      including them in the dose reconstructions.

20                  MEMBER ZIEMER:     Thank you.

21                  CHAIRMAN MELIUS:     Other questions

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1 for LaVon from the Board Members at this <sup>258</sup>  
2 time?

3 (No response.)

4 Okay. Don't go too far away,  
5 LaVon. But Mark Griffon, who is Chair of the  
6 Rocky Flats Work Group, will now give a short  
7 presentation.

8 (Pause.)

9 Yes, why don't you just speak to  
10 it, Mark?

11 MR. HINNEFELD: I apologize, Ted,  
12 I don't think I can get to it easily in a  
13 reasonable amount of time.

14 MEMBER GRIFFON: Yeah, I can just  
15 speak from my notes. And LaVon, in his 40-  
16 some slides covered a lot of the detail  
17 anyway. So, I will be fairly brief.

18 I mean, first of all, I wanted to  
19 start off by thanking the petitioner for  
20 their persistence in following up on this  
21 issue.

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1 (Applause.) 257

2 I think it's worth noting that  
3 they brought forward some new issues, but  
4 also some more information on some old  
5 issues. And I think the thorium strikes, the  
6 neptunium, those issues were covered before,  
7 but, obviously, NIOSH found out a lot more  
8 this time. So, again, thank you for your  
9 persistence.

10 The other thing I want to note is  
11 this review really highlighted the difficulty  
12 in nailing down some of the operational  
13 information on exotics, like the thorium  
14 strikes, neptunium, et cetera. So, I think  
15 sort of a lesson learned for all of us.

16 Yeah, my slides are very similar  
17 to what LaVon went over, in much shorter  
18 form, but I did want to note I participated  
19 in some of the, or one of the classified  
20 interviews that was done out here. Again,  
21 that whole idea of confirming operational

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1 details, I think those interviews, along with<sup>258</sup>  
2 comparing them to the logbooks, was very  
3 insightful, especially for the thorium strike  
4 operations, and raised some questions on  
5 locations and additional thorium strikes that  
6 occurred.

7 I think LaVon got into a lot of  
8 that. So, that certainly was very useful for  
9 the Work Group. So, I'll hit the main issues  
10 that LaVon also hit. But the tritium, the  
11 Work Group is still looking at the tritium  
12 issue. I just want to be clear that this is  
13 still an open issue with the Work Group.  
14 SC&A has raised some questions on some of the  
15 calculational approaches, and also on the  
16 approach used to bound. I think it is from  
17 1973 prior, based on a certain incident.

18 I think the Work Group and most  
19 involved are very aware that it is likely  
20 small doses, but we still have to answer this  
21 question of whether the approach can be -- or

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1 the model that they are proposing can be  
2 bounding and used. So, that's a remaining  
3 action for the Work Group.

4 The uranium/thorium strikes, I  
5 think, again, very useful for the follow-up  
6 on this. You know, we certainly found that  
7 there was much more activity in this regard,  
8 much more operational activity, I should say.

9 And the original approaches of using air  
10 sampling to bound may have not even been in  
11 the right room. So, we raise locational  
12 questions, too. So, I think, again, that was  
13 very useful to follow up on these issues,  
14 both relative to thorium-228 and uranium-233.

15 For neptunium, you know, I think  
16 the Work Group discussed a little bit the  
17 notion of possibly using a source term as a  
18 way to bound this. I think LaVon went  
19 through this question of the throughput in  
20 the plant and also pointed out that there are  
21 no monitoring records, and also the

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1       inadequacy of the gross alpha approach, or <sup>at</sup>~~at~~  
2       least the questions raised in using the gross  
3       alpha numbers.

4                   And then, finally, the data  
5       falsification/data invalidation issue. This,  
6       I want to be clear, is also a remaining issue  
7       for the Work Group. I think the petitioners  
8       raised some serious concerns about the  
9       question of sort of the environmental  
10      findings and how they might have been similar  
11      to workplace or occupational exposure  
12      findings. And we're following up on that.  
13      SC&A is following up, NIOSH is following up  
14      on this.

15                   One thing of interest has  
16      certainly been this, prior to the Tiger  
17      Teams, there was something called the Special  
18      Assessment Team that did a review of the  
19      Rocky site. And we're trying to find the  
20      full report. I think there's multiple  
21      volumes, at least it seems like there should

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1 be, and we are trying to track that down <sup>to</sup> ~~to~~  
2 see if that sheds any light on this issue.  
3 So, again, that issue is still open.

4 Especially relative to that  
5 issue, we, you know, the Work Group and the  
6 Board, I think, would very much appreciate  
7 any public comments in that regard. Since it  
8 is still an open issue, I think that would be  
9 very useful for us to hear about.

10 So, you know, just to close, I  
11 think the main focus for the Board today  
12 should be the NIOSH proposal. The Work Group  
13 is not really making this proposal. It is a  
14 NIOSH proposal to add the Class based on  
15 neptunium and uranium-233. But we also want  
16 to hear more on these other open items from  
17 the public.

18 And I think, with that, I will  
19 close. Thanks.

20 CHAIRMAN MELIUS: Questions for  
21 Mark?

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1 (No response.) 262

2 Okay. I would now like to hear  
3 from the petitioner. Terrie.

4 MS. BARRIE: Good afternoon, Dr.  
5 Melius and Members of the Board. My name is  
6 Terrie Barrie, and I am the co-petitioner for  
7 the Rocky Flats SEC petition.

8 And thank you for giving me this  
9 time today to present the petitioner's  
10 opinion of NIOSH's recommendation. To put it  
11 simply, we agree with them, and we urge the  
12 Board to vote to accept NIOSH's  
13 recommendation and expand the Class of Rocky  
14 Flats workers who would be covered from 1952  
15 through 1983.

16 My presentation will be very  
17 short, too, because we agree with everything.  
18 I do want to thank NIOSH and the Work Group,  
19 though, for continuing their investigation.  
20 There are various important issues that  
21 remain to be resolved.

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1                   My number one favorite is <sup>the</sup>~~the~~  
2                   ever-elusive Tiger Team reports. You know,  
3                   the reason -- there was a question about  
4                   whether there are actually four volumes of  
5                   the Special Assignment Team. And I quote  
6                   from the Environmental Assessment Report.  
7                   "This Special Assignment Team was divided  
8                   into four groups to perform various aspects  
9                   of the evaluation. The four groups were  
10                  concerned with, Number 1, management and  
11                  operations; Number 2, safety; Number 3,  
12                  environment, and, Number 4, legal matters.  
13                  This document is the report of the  
14                  environmental team." End quote.

15                  So, I'm quite happy that NIOSH,  
16                  the Work Group, and SC&A is going to continue  
17                  to search for these other three volumes.

18                  And we hope that these  
19                  outstanding issues are resolved in a timely  
20                  manner. You know, this has been going on for  
21                  a while, but I do appreciate, honestly, all

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1 the work that NIOSH has put into researching<sup>264</sup>  
2 the issues for this petition.

3 And the petitioner, [identifying  
4 information redacted], asked me to read his  
5 statement into the record, if that is okay.

6 CHAIRMAN MELIUS: Yes.

7 MS. BARRIE: And I quote, "Many  
8 workers have suffered and died from their  
9 work at the nuclear weapons plants like Rocky  
10 Flats. Many thanks to those of you who are  
11 finally listening to us. Our work will not  
12 be done, though, until all of our fellow  
13 workers during the Cold War are taken care  
14 of.

15 "I would like to leave you with a  
16 short video, produced by Arin Billings, which  
17 shows some of the workers from Rocky Flats,  
18 or their survivors, who will be helped if  
19 this petition is passed today. And the  
20 people on this video will benefit from the  
21 future investigation that NIOSH and the Work

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1 Group will do." 265

2 And, with that, I thank you. And  
3 if anybody has any questions, I will be happy  
4 to answer.

5 CHAIRMAN MELIUS: Okay. Thank  
6 you, Terrie. Thank you, [identifying  
7 information redacted], also.

8 LaVon?

9 MR. RUTHERFORD: Terrie asked me  
10 to play this video.

11 (Whereupon, a video was played.)

12 CHAIRMAN MELIUS: For those of  
13 you on the phone, there was a video playing.

14 That's why there was some quiet times. A  
15 very moving video.

16 Thank you. Thank you, Terrie and  
17 [identifying information redacted].

18 And people on the line, if you  
19 could please mute your phone. If you don't  
20 have a mute button, \*6. Thank you. You can  
21 do that.

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1                   And, Paul, you had a question for  
2                   Terrie?

3                   MEMBER ZIEMER:        Yes, either  
4                   Terrie or maybe Mark.

5                   I think, Terrie, I heard you say  
6                   that three of the four volumes of the Tiger  
7                   Team report are not located. Did I hear that  
8                   right?

9                   MS. BARRIE:        You heard that  
10                  correctly.        NIOSH and SC&A have been  
11                  attempting to find this through the  
12                  Department of Energy, and I think Joe  
13                  Fitzgerald and actually LaVon could give you  
14                  --

15                  MEMBER ZIEMER:    Oh, because I was  
16                  going to ask Joe if he remembered who led --  
17                  was Leo Duffy the leader of that?

18                  MR. FITZGERALD:    He was, but,  
19                  actually, I'm in contact with the two team  
20                  leaders, who you know very well. And one of  
21                  them is going to look. He believes he has

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1 copies of it. 267

2 MEMBER ZIEMER: All right. Yeah,  
3 I was thinking there must be personal people.

4 In fact, I will look. I have a collection  
5 of Tiger Team reports also.

6 MR. FITZGERALD: Well, this would  
7 predate the Tiger Teams, but the principals  
8 in that --

9 MEMBER ZIEMER: Well, right, it  
10 predates officially the Tiger Teams, but it  
11 was sort of the first one.

12 MR. FITZGERALD: It looks pretty  
13 good that they have --

14 MEMBER ZIEMER: But I thought  
15 maybe Joe Fitzgerald would have a copy.

16 MR. FITZGERALD: Actually, I  
17 thought I might, too. But I have contacted  
18 somebody who was actually on that review and  
19 thinks that he might actually have a copy.

20 MEMBER ZIEMER: I'm a little  
21 surprised that Glenn Podonsky's group doesn't

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1 have a copy since they inherited the ~~EH~~<sup>EH</sup> 268  
2 mandates, so to speak. But I presume they  
3 have looked.

4 MR. FITZGERALD: Yeah, we made  
5 that request, and DOE was unable to find  
6 those volumes. So, we have gone a step  
7 further and actually contacted the  
8 individuals who were in that review, and I  
9 think we will find them.

10 MEMBER ZIEMER: Thank you.

11 CHAIRMAN MELIUS: Thank you.  
12 Thanks, Joe. Any other questions for Terrie?

13 (No response.)

14 If not, I would like to have Ted  
15 read a letter from the Colorado Congressional  
16 delegation into the record.

17 MR. KATZ: Right. Thank you,  
18 Jim. So, this is dated October 11th, 2013.

19 "Dear Dr. Melius:

20 "We write to support the National  
21 Institute for Occupational Safety and Health

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1 Evaluation Report for SEC-0192 recommending<sup>269</sup>  
2 the inclusion of an additional Class of  
3 workers at the Rocky Flats Plant in this  
4 Special Exposure Cohort. This long-awaited  
5 action will help hundreds of nuclear workers  
6 get the care and benefits they deserve.

7 "As you know, Congress enacted  
8 the Energy Employees Occupational Illness and  
9 Compensation Program Act in 2000 to provide  
10 healthcare and benefits to workers injured  
11 among the approximately 600,000 workers  
12 employed at the U.S. Atomic Weapons Program  
13 facilities throughout the country.

14 "The Rocky Flats Plant, located  
15 in Jefferson County, Colorado, produced  
16 nuclear weapons triggers from 1952 until  
17 1989. The facility utilized plutonium and  
18 more than 8,000 chemicals during production  
19 of these triggers, and cleanup from the  
20 contamination took more than a decade.

21 "As was the case in facilities

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1 across the United States, Rocky Flats was  
2 plagued by workplace accidents, spills,  
3 fires, emissions, and leaking containers.  
4 Furthermore, records kept by the facility  
5 were incomplete because the true dangers of  
6 the materials being handled were unknown at  
7 the time. Workers at Rocky Flats were  
8 unknowingly putting themselves at risk on  
9 behalf of their country.

10 "The Evaluation Report from NIOSH  
11 clearly outlines NIOSH's inability to  
12 sufficiently estimate the radiation levels  
13 workers were exposed to from 1952 to 1983 and  
14 concludes such radiation doses more likely  
15 endangered the health of the workers.

16 "Pursuant to 42 U.S.C. Section  
17 73.84(q), such determination authorizes the  
18 Advisory Board on Radiation and Worker Health  
19 to recommend to Secretary Sebelius for this  
20 Class of workers to be included in the  
21 Special Exposure Cohort.

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1 time for the Board to deliberate on the  
272  
2 recommendation from NIOSH.

3 And I would add for clarification  
4 that the Work Group has met, the Rocky Flats  
5 Work Group, has met and has had reviewed much  
6 of the information that is in the revised  
7 report. However, the revised report was not  
8 formally published at that time and came out  
9 a little bit later than that. So, the Work  
10 Group doesn't have a formal recommendation on  
11 it, simply because there wasn't something  
12 there to recommend at that time, and so  
13 forth. But I will defer to Mark when it  
14 comes time to ask for a motion.

15 But I would first like to see if  
16 anybody, Board Members, have additional  
17 questions or comments about the report,  
18 concerns, anything that you want to raise  
19 before we start to consider a motion.

20 (No response.)

21 Okay. If not, I will ask, Mark,

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1 if you would like to make a motion? 273

2 MEMBER GRIFFON: Yeah, I would  
3 like to make a motion to add the Class as  
4 defined by NIOSH in Rev 1 of their Evaluation  
5 Report.

6 CHAIRMAN MELIUS: Okay.

7 MEMBER LEMEN: I'll second that.

8 CHAIRMAN MELIUS: Okay. Good.  
9 Thank you. And that Class would be all  
10 employees of the Department of Energy, its  
11 predecessor agencies, and their contractors  
12 and subcontractors who worked at the Rocky  
13 Flats Plant in Golden, Colorado, April 1st,  
14 1952, through December 31st, 1983, for a  
15 number of workdays aggregating at least 250  
16 workdays accruing either solely under this  
17 employment or in combination with workdays  
18 within the parameters established for one or  
19 more other Classes of employees included in  
20 the Special Exposure Cohort.

21 That would essentially be

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1 expanding, extending the Special Exposure<sup>274</sup>  
2 Cohort coverage for Rocky Flats by 17 years,  
3 essentially, '66 up through the end of -- the  
4 end of '66 up through the end of 1983.

5 Any further comments or  
6 questions?

7 (No response.)

8 If not -- Wanda, yes?

9 MEMBER MUNN: I would like to  
10 make a very brief statement. It has nothing  
11 to do with lack of compassion for the workers  
12 or anything to do with any human issues. It  
13 is a purely science observation.

14 The Rocky Flats Plant had a very  
15 good long-term and high-caliber monitoring  
16 program. Any truly objective individual who  
17 is experiencing dose reconstruction, absent  
18 the need for the reservations that this body  
19 has placed on their deliberations, and absent  
20 any concern or reward for any person, would  
21 be able to do valid dose reconstructions for

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1 these folks based on the data that are  
2 available to us.

3 For that reason, and for that  
4 reason only, I will not vote for this  
5 particular motion. But it is based solely on  
6 observations of science and nothing else.

7 CHAIRMAN MELIUS: Okay. Thank  
8 you, Wanda. Anybody else wish to comment?

9 (No response.)

10 I would just point out for people  
11 in the audience, that's not necessarily a  
12 view shared by the entire Board.

13 So, Ted, go ahead with the roll  
14 call.

15 MR. KATZ: Thank you, Jim.

16 So, Dr. Anderson?

17 MEMBER ANDERSON: Yes.

18 MR. KATZ: Ms. Beach is recused  
19 from this vote.

20 Mr. Clawson?

21 MEMBER CLAWSON: Yes.

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1 MR. KATZ: Dr. Field? 276  
2 MEMBER FIELD: Yes.  
3 MR. KATZ: Mr. Griffon?  
4 MEMBER GRIFFON: Yes.  
5 MR. KATZ: Dr. Kotelchuck?  
6 MEMBER KOTELCHUCK: Yes.  
7 MR. KATZ: Dr. Lemen?  
8 MEMBER LEMEN: Yes.  
9 MR. KATZ: Dr. Lockey?  
10 MEMBER LOCKEY: Yes.  
11 MR. KATZ: Dr. Melius?  
12 CHAIRMAN MELIUS: Yes.  
13 MR. KATZ: Ms. Munn?  
14 MEMBER MUNN: No.  
15 MR. KATZ: Dr. Poston?  
16 MEMBER POSTON: Yes.  
17 MR. KATZ: Dr. Richardson?  
18 MEMBER RICHARDSON: Yes.  
19 MR. KATZ: Dr. Roessler?  
20 MEMBER ROESSLER: Yes.  
21 MR. KATZ: Mr. Schofield?

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1 MEMBER SCHOFIELD: Yes. 277

2 MR. KATZ: Ms. Valerio?

3 MEMBER VALERIO: Yes.

4 MR. KATZ: And Dr. Ziemer?

5 MEMBER ZIEMER: Yes.

6 MR. KATZ: So, the ayes have it,  
7 and the motion passes.

8 (Applause.)

9 CHAIRMAN MELIUS: I think you  
10 already know -- there's a little bit of time  
11 -- our recommendation goes up to the  
12 Secretary of HHS. It's a process. NIOSH  
13 assembles the information.

14 And part of the reason we had  
15 LaVon so long, a slide presentation and a  
16 135-page report, was to make sure there's  
17 ample scientific and technical justification  
18 under the Act that supports this SEC  
19 determination.

20 So, that gets forwarded, and we  
21 expect within a couple of months, actually,

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1 maybe even sooner, this gets put into place,<sup>278</sup>  
2 I guess depending on the government reopening  
3 and other issues like that, but we are pretty  
4 confident it will go through. Generally, our  
5 recommendations, those of NIOSH, are followed  
6 by the Secretary and are accepted. So, feel  
7 fairly confident of this determination going  
8 forward.

9 I would like to go into the  
10 public comment period and do that. Again, I  
11 would remind people that, if you want to make  
12 the public comment period, we are  
13 particularly interested in some of the open  
14 issues that are remaining here: the data  
15 falsification issue, the 1984 through 1988  
16 period for neptunium exposure potential,  
17 magnesium-thorium alloy issue, and so forth.

18 There may be other issues you  
19 want to raise, but we are trying to move on  
20 and deal with the other issues that were in  
21 the active petition here. This is an ongoing

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1 process until we have addressed -- until ~~we~~<sup>we</sup>  
2 feel that we have satisfactorily addressed  
3 all of the issues raised in the petition.

4 I think, as you heard, there are  
5 still interviews that need to be done, and so  
6 forth. So, we will do that.

7 I would also add that if you have  
8 information on any of those issues and you  
9 don't wish to make public comment or don't  
10 wish to share some of the information in  
11 public, if you could contact either one of  
12 the NIOSH staff that is here, or one of the  
13 SC&A staff which represents -- sort of works  
14 for the Board in terms of doing this, and Joe  
15 Fitzgerald who -- Joe, can you stand up? Let  
16 them know, one of them know, and it doesn't  
17 necessarily matter which one, just so we can  
18 be able to follow up.

19 Because I think, as you can see,  
20 one of the reasons for the success and the  
21 reason that we were able to forward on this

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1 petition, on some of the same issues that we  
2 weren't able to, didn't on the earlier  
3 petition, is that we had much more  
4 information. And a lot of that came from  
5 interviews and talking to people who were  
6 familiar with the site and had a lot of  
7 information on it.

8 So, what you provide us is very  
9 important. So, we appreciate that, and it's  
10 something that is, I think, critical to this  
11 process, one of the reasons we come and have  
12 meetings near these sites and try to do it in  
13 conjunction with our deliberations.

14 So, rather than waiting until  
15 five o'clock, we're going to start early with  
16 our public comment period. I know some of  
17 you have other things to do. And so we will  
18 go -- and Ted has to read some instructions  
19 first.

20 MR. KATZ: Right. Well, I won't  
21 read them, but I'll tell you about them. But

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1 before I do, I have materials from -- and I'd  
2 note that one of the people who wants to  
3 speak is Judy Padilla. Zaida upfront gave me  
4 an affidavit from Charles Padilla with  
5 numerous copies.

6 I just want to clarify from Judy.  
7 The instructions were to give these just to  
8 the Chair. Are these intended for the whole  
9 Board, these materials?

10 MS. PADILLA: Excuse me?

11 MR. KATZ: These materials,  
12 Charles' affidavit, you want these  
13 distributed to the Board, I assume, and NIOSH  
14 and everybody?

15 MS. PADILLA: Yes, sir.

16 MR. KATZ: Okay. Very good. But  
17 they don't need to be read into the record or  
18 anything right now, right?

19 MS. PADILLA: Yes, I would like  
20 his affidavit read into the record.

21 MR. KATZ: Oh, you would like

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1       them read?   Okay.   That's why I just wanted<sup>ed</sup>  
2       clarification about that.

3                   MS. PADILLA:   He wasn't able to  
4       come here today, but he asked me to --

5                   MR. KATZ:   Oh, I'm happy to read  
6       it into the record. I just wanted to clarify  
7       that that was the intent.

8                   MS. PADILLA:   Thank you.

9                   MR. KATZ:   Thank you.

10                  CHAIRMAN           MELIUS:                So,  
11       instructions.

12                  MR. KATZ:    Instructions.    So,  
13       just to let everybody know before you make  
14       comments that -- you may not all be familiar,  
15       but there is a transcript being made of this  
16       meeting, a verbatim transcript.   That gets  
17       published on the NIOSH website for anyone in  
18       the public to read.   So, everything you say  
19       will be printed there verbatim.   So, consider  
20       that with whatever you might have to say in  
21       terms of personal information, because all

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1 that personal information will be provided<sup>283</sup>

2 The only exception to that is  
3 that, if you provide personal information  
4 about another party, someone else, we will  
5 consider redacting some of that information  
6 to protect that person's privacy.

7 So, there are some provisos  
8 related to that, but that's the basic policy,  
9 and it should be available on the back table,  
10 if you want to read it in detail. And also,  
11 for people who are on the phone, on the NIOSH  
12 website, it's referenced as the redaction  
13 policy. But, anyway, that is the sum of it  
14 right there.

15 Thank you. I can now read this  
16 whenever --

17 CHAIRMAN MELIUS: Well, it is  
18 going to be very shortly. So, get ready.

19 Yeah, what I am going to do is,  
20 for the people that are signed up, I am going  
21 to start with people I believe are related --

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1 speaking to Rocky Flats. It's not always<sup>284</sup>  
2 clear here, and I will do that. And then we  
3 will come back to some of the other people  
4 that have signed up. Some of the people are  
5 not here, but have called in on the  
6 conference line, and we will do them a little  
7 bit later.

8 And I believe, actually, the  
9 first person I have up here is Judy Padilla.

10 So, if you want to read the statement, yes.

11 MR. KATZ: Sure. So, this is  
12 from Charles Padilla, his affidavit.

13 "I started at Rocky Flats Nuclear  
14 Weapons Plant in 1988 in the food service  
15 until my security clearance was completed. I  
16 then was assigned to the mailroom where my  
17 job consisted of mail delivery, internal and  
18 external, to all the buildings and trailers  
19 on the plant site. I was not issued a  
20 dosimetry badge. I later bid on a posting as  
21 a utility worker and worked mostly in

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1 Building 881. I was issued a dosimetry badge<sup>285</sup>  
2 and had occasional hot booties and gloves  
3 during the course of my work.

4 "I successfully bid on a job for  
5 chemical operator/process specialist and was  
6 assigned to the solar ponds where pond  
7 crete/salt crete was created.

8 "Pond crete was made by mixing  
9 liquid sludge from the solar ponds with  
10 Portland cement. Classified by DOE as a non-  
11 RCRA, low-level radioactive waste, it was  
12 later reclassified as hazardous waste and  
13 low-level mixed waste.

14 "I worked in Buildings 371/374 as  
15 a chemical operator in the reverse osmosis  
16 areas, as well as the holding tanks. One of  
17 my jobs was to check the" --

18 Excuse me. The person on the  
19 line, please mute your phone, \*6 if you don't  
20 have a mute button. Okay. Excuse me for the  
21 interruption here.

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1                   "One of my jobs was to check ~~the~~<sup>286</sup>  
2           liquids visually from the top of the tank,  
3           take samples, and record the levels. We did  
4           not have RCT assistance when we breached the  
5           tanks, and several times contamination was  
6           found on my hands, booties, coveralls, and  
7           skin at the step-off pad.

8                   "During the layoffs in 1994-5, I  
9           was a work package closer-initiator and went  
10          into every building for signatures to start  
11          or close work packages.

12                  "I have been diagnosed with: lung  
13          nodules, COPD, prostate cancer, numerous skin  
14          cancers, kidney cancer, liver cancer, and  
15          bladder cancer. I had my bladder removed,  
16          urostomy, on October 10, 2012. My request  
17          under the EEOICP for compensation was denied.

18                  "Rocky Flats was shut down  
19          because of illegal environmental activities.

20          Rockwell, the subcontractor, pled guilty to  
21          violations of the discharge permits and

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1       inadequate control of processes where sludge<sup>287</sup>  
2       was to be made into pond crete blocks.  
3       Rockwell   pled   guilty   to   criminal  
4       environmental crimes and were accused of  
5       `concealed, illegal disposal of hazardous and  
6       radioactive waste, faked paperwork, and  
7       discharge of exotic pollutants into  
8       streams.' "

9                   And that's a quote from Rocky  
10       Mountain News.

11                   "DOE   angered   many   when   it  
12       insisted that environmental laws didn't apply  
13       to their facilities. People working at the  
14       plant talked about how dangerous and unsafe  
15       their work was.   DOE released reports  
16       criticizing safety of operations. Rockwell  
17       agreed to a fine of \$18.5 million. The  
18       Justice Department couldn't indict DOE, an  
19       agency of the federal government that has  
20       statutory immunity. Rockwell signed the  
21       agreement on March 26th, 1992, unequivocal

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1 plea of guilty. 288

2 "So, how does that affect me? I  
3 worked for a company who could not be trusted  
4 to protect its workers, polluted public  
5 waterways, lied to officials, and  
6 participated in activities that deserved jail  
7 sentences. The records and information of  
8 the grand jury trial are sealed and  
9 unavailable to anyone who would like to find  
10 the truth. As a Rocky Flats worker, I had  
11 faith in my government that I would be  
12 protected, but I feel I was deceived. I am a  
13 loyal citizen who has done what my country  
14 asked me to do. I continue to have residual  
15 anger for what happened at Rocky Flats and  
16 the damage that was done to the people who  
17 worked there.

18 "It makes sense to me that a  
19 company who would admit to these crimes would  
20 also destroy dosimetry records, fake reports,  
21 and then lie about it.

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1 "I ask you to make good decisions<sup>289</sup>  
2 and take responsibility for your own actions.  
3 Please grant Special Exposure Cohort status  
4 to the Rocky Flats workers with cancer."

5 Signed Charles Padilla, September  
6 20th, 2013.

7 CHAIRMAN MELIUS: Thank you.

8 MR. KATZ: Thank you.

9 CHAIRMAN MELIUS: Judy, do you  
10 have anything you want to add?

11 MS. PADILLA: Yes, I would like  
12 to add I appreciate all of your working,  
13 especially NIOSH's hard work on the  
14 neptunium, but I feel like they didn't go far  
15 enough.

16 As Charlie stated in his letter,  
17 Rockwell, the subcontractor, pled guilty --  
18 guilty -- to these crimes. And they ran  
19 Rocky Flats up until 1992. So, I feel the  
20 Special Exposure Cohort should extend to  
21 1992.

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1                   You are all intelligent, educated<sup>290</sup>  
2 people. How can you take data from liars,  
3 admitted liars, guilty liars?

4                   And that's all I have to say.  
5 Thank you.

6                   CHAIRMAN MELIUS: Okay. Thank  
7 you. The next person I have listed is John  
8 Krol.

9                   MR. KROL: Thank you all for  
10 listening to our concerns here.

11                   I started to work for Rockwell  
12 International in August of '77. I went in as  
13 a vehicle modification mechanic. We had a  
14 very special set of work tasks that we had to  
15 do. We created -- we were the factory for  
16 building a lot of very secure methods of  
17 transportation for the Transportation  
18 Safeguards Division in Albuquerque to support  
19 whatever they wanted to haul. It was a very  
20 elaborate, very complex operation. It  
21 involved working with a lot of different

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1 materials. There was a group of about 100<sup>291</sup>  
2 us that supported this operation for Rockwell  
3 and for DOE and to keep everybody safe here.

4 It was the initial stages of some very  
5 important counterterrorism-type operations.

6 Throughout my career, which I  
7 spent approximately 16 years in the Vehicle  
8 Modification Center -- Mod Center, if you  
9 will -- working in kind of -- it was a very  
10 bad environment. We didn't have any -- I  
11 know air conditioning doesn't mean a lot, but  
12 we didn't have a ventilation system that was  
13 adequate in any way to protect our breathing  
14 for materials we were working with, welding,  
15 cutting, grinding, all kinds of operations.

16 We worked with many exotic  
17 materials in there, as well, to support this.

18 We had many prototype jobs that we worked  
19 with, many unknown hazards.

20 I really can't get in to address  
21 the specific materials that we worked with.

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1 Many of them were marked with "radioactive<sup>292</sup>  
2 material," but we were in a cold building.  
3 We had very minimal radiological protection.

4 Radiological control technicians were  
5 usually very scarce.

6 We did not have support from  
7 dosimetry for most of the time. We did not  
8 have -- we basically had a bioassay program  
9 that was lateral to that of office workers.  
10 We were pretty much basically the black  
11 sheep. That is how we were looked at at the  
12 plant.

13 Many of the transportation  
14 vehicles that were in the fleet, when we did  
15 have RCT support, we were told that there was  
16 tritium contamination. We also worked with  
17 thorium in our welding processes on a day-to-  
18 day basis. Many people are not here with us  
19 today that worked there.

20 I was very proud to take on a  
21 special assignment back in 1984, along with

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1 about, I believe, seven other volunteers. ~~We~~<sup>293</sup>  
2 worked on a special project that wasn't even  
3 for the Department of Energy. It was for  
4 another government entity. I was trying to  
5 think of who else would still be around from  
6 then. I can't think of any survivor other  
7 than myself from that project.

8 Many things were overlooked  
9 through our group, and much of our hazards  
10 were definitely not addressed throughout any  
11 of the sick employees' compensation program.

12 Even my own brother who worked there passed  
13 away from cancer. Many people are suffering  
14 the effects, which I believe were mostly  
15 covered up or just not even acknowledged.

16 I would greatly appreciate if  
17 these concerns would be possibly raised again  
18 for survivors, anyone that had become ill  
19 from this. I would be willing to release  
20 much more information in a confidential  
21 meeting, but I would really not be

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1 comfortable with providing any ~~more~~<sup>more</sup>  
2 information at this time in a public manner.

3 Thank you all.

4 CHAIRMAN MELIUS: Yes, and we  
5 understand the confidentiality/security  
6 issues. So, do that.

7 Okay. I'm just trying to clarify  
8 something in terms of follow-up, but LaVon is  
9 following up that.

10 The next person I have I believe  
11 is Nila Adkins. Yes?

12 MS. ADKINS: Good afternoon. I  
13 would like to thank the SEC for passing up to  
14 1980, but still there is some former Rocky  
15 Flats employees that need to be approved.

16 To you, Danny Adkins is just  
17 another statistic. White male, deceased at  
18 age 47. Cause of death: pancreatic cancer.  
19 Worked at Rocky Flats from October 1981 to  
20 February 2002. However, to us, he is a son,  
21 brother, husband, father, grandfather, and

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1 friend. He was born December 7th, 1955, <sup>in</sup>~~295~~  
2 Huntington, West Virginia, and died September  
3 10, 2003, in Westminster, Colorado.

4 To those of us that knew him, he  
5 was a kind, gentle, fun, loving, generous man  
6 who was taken from us too soon. Danny's  
7 dying request to his family was to fight for  
8 his compensation that he knew he was due. He  
9 said to fight for this because he didn't want  
10 this to just die and to go away.

11 He knew that during his time  
12 while working at Rocky Flats he was exposed  
13 to something that causes cancer. Having done  
14 research, interviewing various coworkers and  
15 employees, and compiling lists of toxic and  
16 hazardous material that he came into contact  
17 with, I have to think that he was correct.  
18 The research on the partial list of the  
19 chemicals and radioactive elements showed  
20 that many of them are known carcinogens and  
21 have links to many cancers.

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1                    Danny has been gone for ten years<sup>298</sup>  
2                    now, and he was no farther in the process of  
3                    dose reconstruction. There were all claims  
4                    when he started his claim twelve years ago.  
5                    The interview that he gave stated that when  
6                    his dose reconstruction dosimeter was reading  
7                    zero, he was highly contaminated.

8                    This whole process has been very  
9                    frustrating, a large bureaucracy. The burden  
10                   of proof has been upon the family. Danny had  
11                   a top security clearance. His family and  
12                   friends were not to know the extent of his  
13                   job, what is entailed, and the elements and  
14                   chemicals he was using.

15                   The metrics that are used to  
16                   determine if a chemical contributes to a  
17                   cancer are incorrect. They only apply to  
18                   standard use.

19                   Sorry, I'm just so nervous. Bear  
20                   with me.

21                   Of the chemicals, this method

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1 cannot be applied when it comes to Rocky  
2 Flats because these chemicals were not used  
3 in the standard method.

4 Danny served his country twice,  
5 once when he was in the Air Force and again  
6 when he was employed by the various  
7 contractors that ran Rocky Flats. He gave  
8 himself to his country with no question  
9 asked. He was told that he would be safe in  
10 the job that he performed in the name of  
11 national security.

12 Danny died at the age of 47.  
13 That age is not even near retirement age  
14 requirement. He was looking forward to his  
15 life events before he was diagnosed with  
16 pancreatic cancer.

17 Since he has been gone these ten  
18 years, he has missed the birth of his  
19 granddaughter, the marriage of his youngest  
20 daughter, his 35-years wedding anniversary,  
21 and in four years will miss the high school

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1 graduation of his grandson. 298

2 I remember a conversation that he  
3 had with me, my mom, that his grandson would  
4 graduate. "I am planning on being there,"  
5 saying that he is planning to be at his  
6 grandson's graduation, and all the birthdays,  
7 anniversaries, and holidays and countless  
8 little life's moments that he would have  
9 cherished. These are things that were taken  
10 away from us, of all those who love and miss  
11 him. We miss him and his love, his sense of  
12 humor, that voice of wisdom, and his love of  
13 life.

14 Passing the SEC does not bring  
15 him back, but it does help all the other  
16 employees that are sick, dying, and the  
17 families of those who have passed away.

18 This subject is something that  
19 causes passion to run high. Put yourself in  
20 someone's shoes who has just lost a loved one  
21 to a horrific terminal illness which had no

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1 way -- the person changed from a healthy, <sup>299</sup>  
2 able-bodied person to a former shell of the  
3 person they used to be.

4 Imagine having to do research on  
5 a subject that you know nothing about. Try  
6 to recreate and imagine the type of work that  
7 someone did during their 20 years' employment  
8 history, finding records for employment, only  
9 to find that they were falsified, missing, or  
10 incorrect; being told that it's your  
11 responsibility to prove that the illness was  
12 caused from his job; being rejected for  
13 compensation numerous times because the dose  
14 reconstruction wasn't high enough, and the  
15 evidence provided was not enough countless  
16 other times.

17 This whole process is exhausting  
18 physically, emotionally, and mentally. This  
19 process causes you to relive the most  
20 horrible parts of your life over and over and  
21 over again, never really being able to move

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1 on, always stuck in the past. 300

2 Please pass a SEC for this group  
3 of Rocky Flats employees and their survivors  
4 to help start that healing process.

5 Thank you very much.

6 (Applause.)

7 CHAIRMAN MELIUS: Thank you.

8 I believe it's Peter Montez.

9 MR. MONTEZ: First of all, thank  
10 you for passing the SEC.

11 I worked at Rocky Flats as a  
12 youth from around 19 years old for  
13 approximately 26-28 years. I entered as an  
14 electrician and ended it as a senior  
15 principal development engineer.

16 And I worked in quite a few areas  
17 that were highly radioactive and a lot of  
18 areas that were highly contaminated also.  
19 And that was my job and I did it gladly,  
20 and I was actually a Rocky Flats warrior. I  
21 represented Rocky Flats at a lot of different

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1 functions, like with Arvada, with trying <sup>to</sup>~~to~~  
2 get the admission of us to do our low-level,  
3 mixed-waste mitigation program, things like  
4 that. And I was a project engineer on that,  
5 and also I worked with several other project  
6 engineers that were working also on other  
7 waste issues.

8 But, as I went in through my  
9 years at Rocky Flats, I was involved in  
10 several contamination incidents, and to  
11 myself specifically also. And I also did get  
12 contamination to my wounds. And I worked in  
13 cold and hot areas. And some of the cold  
14 areas were the areas that had been cleaned up  
15 previously through initial fires, but I also  
16 worked there to help clean up after the later  
17 fires.

18 In those days, there was a lot of  
19 work to do and there was a lot of  
20 contamination. We got contaminated quite a  
21 bit.

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1                   In fact, one of my memorable<sup>302</sup>  
2 experiences is when one of my workers was  
3 contaminated at the same time I was.  
4 Usually, what they would do is they would  
5 bring you out and they would start scanning  
6 you to see how far your clothing -- they  
7 would take off your initial coveralls, and  
8 they would go down to the coveralls that are  
9 inside there. If you are still contaminated,  
10 they take those off, go down to your  
11 skivvies. If you're contaminated there, then  
12 they go ahead and have you either disrobe  
13 there or go to a decontamination shower.

14                   Well, when I disrobed and they  
15 scanned my body, I was clean. But one of my  
16 workers, when they scanned his body, he was  
17 contaminated in his testicles. And so they  
18 took him off to medical -- they took me out  
19 and just gave me a cleanup and all -- and  
20 then sent him back to work.

21                   Well, a week later he quit. And

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1 I can imagine, because he told me, "How could  
2 I go explain to my wife where I was  
3 contaminated and still have relationships  
4 with her?"

5 But, on my behalf here, I did  
6 have a very good -- I'm sorry, I'm also -- I  
7 forgot to say that -- I'm a cancer survivor  
8 right now. I do have -- I have had colon  
9 cancer and I'm through some radiation  
10 treatment and chemo treatment. And I am at  
11 some more chemo, I am halfway through my  
12 chemo.

13 But, anyway, I had worked doing  
14 redesign on the plutonium casting furnaces,  
15 like in 07 and a few other buildings there.  
16 And those were very highly radioactive  
17 emitters, radiation emitters.

18 And I know that at one point,  
19 too, also -- this is my recollection, okay?  
20 We have these bentonite shields around these  
21 furnaces. And you were told that you would

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1 just stay so that these bentonite shields<sup>304</sup>  
2 would keep you from getting any more  
3 radiation dosages.

4 But we had, in our reconstruction  
5 or redevelopment of the design of the casting  
6 furnace for plutonium, I had to work for  
7 several hours around these furnaces. And you  
8 had to get on the other side of the shields.

9 But I was told, after one day when we went  
10 in there and these things were being taken  
11 down, I was told the reason why they were  
12 taken down was because they were intensifying  
13 the radiation because you were getting  
14 bounceback of the radiation between these  
15 shields.

16 And so, once again, being the  
17 Rocky Flats warriors and stuff, you know,  
18 things like this didn't register until later  
19 on when I started thinking about things about  
20 the Flats.

21 We had one demonstration there.

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1 People came out of Boulder. People came out  
2 of Denver. And they were talking about  
3 closing down the plant and stuff like that.  
4 There must have been 10,000 people out there.

5 But I was out there with my  
6 pickup truck and my sign saying, "Support  
7 Rocky Flats. You guys are all crazy. You  
8 don't know what you're talking about." I  
9 felt like a little bug out there with all  
10 these people all around me saying about how  
11 unvaluable the land was and all. So, this is  
12 just showing you what kind of a worker I was,  
13 how true-blood I was. Okay?

14 And they were saying that the  
15 land around there wasn't worth 10 cents. And  
16 I was even telling the people that were going  
17 in there, "Here, I've got a dime. I'll buy  
18 it. I've got a dollar. I'll buy 10 acres  
19 from you for a dollar." Things like this,  
20 you know.

21 So, I was really a very concerned

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1 American. Okay? But now I see the people<sup>306</sup>  
2 that have suffered. And I don't know, maybe  
3 I should have been up on there, on that  
4 screen. I don't know. We'll see what  
5 happens.

6 I went through my first  
7 treatment, and they said I had a 50/50 chance  
8 of surviving. And if I get cancer again, I  
9 won't survive. No cure. So, I'm on the  
10 second phase of that to elevate my  
11 percentages.

12 And so I thank you for listening  
13 to me, and please listen to all the others of  
14 these people with their grievances.

15 Thank you.

16 (Applause.)

17 CHAIRMAN MELIUS: Thank you.

18 And the next person I have listed  
19 is Jerry Harden. I know I have seen you  
20 around here today.

21 MR. HARDEN: Good afternoon. My

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1 name is Jerry Harden. I was employed at the <sup>307</sup>  
2 Rocky Flats Nuclear Weapons Site for 37  
3 years. I was a radiation control technician  
4 for most of that time and a three-term  
5 president of United Steelworkers Local 8031  
6 that represented the hourly production and  
7 maintenance workers at the plant.

8 I'm here to speak in support of  
9 expanding the Special Exposure Cohort status  
10 for the long-suffering workers and their  
11 families at Rocky Flats.

12 Rocky Flats was officially closed  
13 in December of 2005, after a long history of  
14 controversy. The plant had one of the worst  
15 industrial fires in U.S. history. The plant  
16 was responsible for large tritium releases  
17 over an extended period of time. The plant  
18 also spread plutonium and other hazardous  
19 chemicals in the environment, with the barrel  
20 field known as 903, for many years.

21 The plant had the first FBI raid

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1 of a government facility and caused a federal<sup>308</sup>  
2 grand jury to be formed. Unfortunately,  
3 those findings have remained sealed, denying  
4 the public and the workers valuable  
5 information about Rocky Flats.

6 To date, there have been 2,319  
7 sick worker claims -- sick worker and  
8 survivor claims settled, with many more  
9 awaiting decisions. Rocky Flats has been the  
10 most deadly workplace and the most expensive  
11 environmental cleanup project in the State of  
12 Colorado.

13 I thank the Board for their  
14 support for the long-suffering Rocky Flats  
15 workers and their families to expand the  
16 Special Exposure Cohort status. Thank you.

17 Any questions?

18 (No response.)

19 Again, another wise choice.

20 Thank you.

21 CHAIRMAN MELIUS: Thank you, Mr.

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1 Harden.

309

2 (Applause.)

3 I was looking for help with a  
4 name that is a little hard to read. It is  
5 [identifying information redacted], something  
6 like -- someone named [identifying  
7 information redacted] in the audience? The  
8 [identifying information redacted] I can  
9 read; the last name I was having trouble  
10 with. See if he is outside.

11 (Pause.)

12 Okay. Not? That's fine. If he  
13 comes back, we will give him a turn.

14 Jack Weaver.

15 MS. VLIEGER: Did you say Faye?

16 CHAIRMAN MELIUS: No. You are on  
17 the list, Faye, and we are getting closer to  
18 you, I promise.

19 MR. WEAVER: Good afternoon. I  
20 want to thank you today for what you have  
21 done. I know everybody appreciates it. And

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1 we are not through yet. We have got a long  
2 ways to go to get the rest of the people  
3 covered.

4 Jack Weaver, Deputy Director of  
5 Plutonium Operations at Rocky Flats, retired.

6 I spent 41 years there.

7 But today I am going to talk a  
8 little bit about something else, and that's  
9 uranyl nitrate. I was asked if I could speak  
10 to that. Laura Reis here is going to say a  
11 few things, too, because she was involved in  
12 part of the operation that exposed her.

13 First of all, I had a varied  
14 occupation at Rocky Flats, as you well know,  
15 because we've talked about it before. But I  
16 had a lot of interface with different  
17 organizations on the plant site. One of  
18 those organizations was the mass crit lab,  
19 Building 886. Building 886 was built to do  
20 mass crit experiments to establish the limits  
21 by which we operated in the plutonium areas

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1 and the uranium areas, but primarily in the ~~311~~  
2 plutonium areas to keep us safe.

3 In that lab, they had a split  
4 table on which they did a lot of experiments  
5 with solid materials, metals and oxides and  
6 such. The lab was never set up for  
7 plutonium, although it did have plutonium in  
8 it from time to time.

9 But the main testing was done  
10 with uranyl nitrate, and it was done by  
11 setting up a series of tanks and pumps and  
12 lines so they could transfer this uranyl  
13 nitrate from tank to tank and do their  
14 measurements and their experiments to  
15 establish those limits by which we operated.

16 Like any tanks that we had in the  
17 771 building, 371, or anyplace else on the  
18 plant site, they all had inputs and outputs  
19 and a lot of flanges, site gauges, and et  
20 cetera, a lot of places for them to leak.

21 And, of course, these did leak,

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1 and they leaked into pans that were on the <sup>312</sup>  
2 floor in the experimental room. And,  
3 initially, they had no criticality rings,  
4 Raschig rings, in there. I had a crew that  
5 went up there, cleaned up the place after a  
6 leak, and we put in Raschig rings to prevent  
7 any criticalities that might get out on the  
8 floor.

9 And during that time, we also  
10 replaced all the gaskets on the valves,  
11 shrink-filmed everything, so if there were  
12 any further links we wouldn't have any  
13 problems. We did have leaks from time to  
14 time, but we pretty much contained those  
15 leaks.

16 But, in the end, when we got  
17 ready to -- in the '90s when we got ready to  
18 go into the D&D operations at Rocky Flats, we  
19 had no P&IDs, no as-builts, or anything of  
20 any of the piping and the tanks, or anything  
21 like that.

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1                   So, one of the things that we ~~did~~<sup>313</sup>  
2                   was we put the crew together. Laura Schultz  
3                   Reis here and [identifying information  
4                   redacted] was sent up to 886 to do as-builts  
5                   in the building.

6                   And with that, I will let her  
7                   explain what she got into with the uranyl  
8                   nitrate and the exposures.

9                   Thank you.

10                  CHAIRMAN MELIUS: Thank you.

11                  MS. REIS: I'm a clinical piping  
12                  designer, and I actually was one of Jack  
13                  Weaver's flunkies. Actually, I was one of  
14                  his kids.

15                  And I was tasked to go into the  
16                  building to do some drawings for him for the  
17                  building. And the building became under  
18                  771's auspice. So, my partner and I, Greg  
19                  Pedracki, were sent in to do some drawings  
20                  for the building.

21                  So, I went up there and I crawled

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1 up on the berm area, which was about a 4-foot<sup>314</sup>  
2 berm. And I sat down on the berm. And the  
3 first thing I noticed was that there was  
4 Raschig rings on the floor which I hadn't  
5 come across before. And I go, "Hmm, that's  
6 strange."

7 So, I kind of got comfortable. I  
8 sit down, and I started doing my sketches.  
9 And I did the drain system. Okay, I did the  
10 drain system. And I went into a general RWP  
11 system, and I didn't have respirators. I had  
12 my respirator with me, but it wasn't required  
13 for me to have with me, to have it on, and I  
14 didn't have an RCT with me because it wasn't  
15 required.

16 And so I did my sketch. So, I  
17 did my sketch, and I was in there for about  
18 two hours. And this was highly -- I was told  
19 there was a highly-fissile solution. And so  
20 I did my sketches.

21 And then I started doing the fuel

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1 lines and I noticed that it was disconnected<sup>315</sup>  
2 from the plenum. And I thought, "Wow, this  
3 is strange." So, I started doing the  
4 drawing, and I found that it had been  
5 disconnected from the plenum. So, I'm doing  
6 the drawing, and it is routed to a wet vacuum  
7 cleaner. What? This is routed to a vacuum  
8 cleaner, and it's routed to room air. And  
9 I'm here without a respirator. This is going  
10 out into room air.

11 And so I tell my partner, and I  
12 said, "I need to get a respirator." So, I  
13 back out, get down, and I take off. We go  
14 back to the building, and I tell them, we  
15 tell them what happened. And they do not  
16 monitor me. I do not get a smear. I do not  
17 get fecal smears. I do not get a nose smear.  
18 And they put the room on supplied air until  
19 they can clear this room, this building, his  
20 lab, Rothe's lab. That's what happened.

21 CHAIRMAN MELIUS: Okay. Thank

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1           you for that. 316

2                           Faye.

3                           MS. VLIEGER:     Hi.     I am Faye  
4           Vlieger, and I sit on the National --

5                           MS. REIS:     Oh, can I say one more  
6           thing?

7                           CHAIRMAN MELIUS:     Sure, you can.  
8           Go ahead.

9                           MS. VLIEGER:     Certainly.     You go  
10          right ahead.

11                          MS. REIS:     I also came down with  
12          kidney cancer.     I lost my left kidney.

13                          MS. VLIEGER:     Hi.     I'm Faye  
14          Vlieger and I sit on the National Advisory  
15          Committee for Cold War Patriots.     I'm also a  
16          veteran of the United States Military and  
17          also a veteran of working at the Hanford  
18          Site.     Some of the Board Members will  
19          recognize me for petitioning for the Hanford  
20          petition.

21                          And I want to thank you all for

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1 the work that you did for both of the Hanford<sup>317</sup>  
2 petitions. Many of the people and coworkers  
3 that I speak for are not able to make these  
4 kinds of trips and, unfortunately, some of  
5 them are no longer with us. But we all thank  
6 you very much.

7 You all know that I get choked at  
8 everything. So, deal with it.

9 I want to thank you much for your  
10 work and your continued work.

11 And, as you know, the Hanford SEC  
12 and the Rocky Flats SEC have gone hand-in-  
13 glove. And you also may have figured out  
14 that PNNL laboratories and Rocky Flats  
15 laboratories exchanged information to try to  
16 have a different eye look at the work that  
17 was going on at Rocky. So, the labs at  
18 Hanford contained or did a lot of work for  
19 the analysis for Rocky Flats.

20 Unfortunately, the Hanford SEC  
21 that's remaining is also going to be hand-in-

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1 glove with what is going on with the Rocky<sup>318</sup>  
2 Flats SEC. And the Hanford SEC has been  
3 languishing for more than two years. I  
4 realize things have been going on in the  
5 background, but it's two-and-a-half years ago  
6 this month that we did the interviews with  
7 the workers concerning the contamination in  
8 the 300 area, which uncovered a lot of the  
9 other issues throughout the site.

10 So, I want to encourage the  
11 Hanford Work Group, which I know is going to  
12 be looking at something finally, to move  
13 along with their proceedings because it will  
14 also help the Rocky Flats issues, because  
15 Hanford seems to be the basis upon what they  
16 build the next Rocky Flats SEC for.

17 For those of you who don't know,  
18 and some of you do know, I was injured in a  
19 chemical exposure at Hanford in June of 2002.

20 That's a rather recent exposure. They have  
21 hidden, successfully, the air monitoring data

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1 and the sampling that was done for <sup>my</sup> 319  
2 accident. All the former and current workers  
3 know that the contractors do this on a  
4 regular basis, and I realize the scientists  
5 in the room are going to go, "That just  
6 doesn't happen."

7 They are successful in doing it  
8 for two reasons. They do it to avoid the  
9 premiums they have to pay for state workers'  
10 compensation. If they go up and they have a  
11 bond, they have to pay in the state. So they  
12 hide the information from the workers'  
13 injuries, so that the worker settles the  
14 claim without knowing the full extent of  
15 their exposures.

16 The other reason they do it is to  
17 protect their contracts, and every worker  
18 here in the room knows that that is a fact,  
19 no matter what site you worked at. My  
20 records from my exposure in 2002, which were  
21 well-documented and monitored, have never

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1        been released through the Energy Employees'  
2        Program under the U.S. Department of Labor,  
3        even though we know exactly where they are.  
4        They were never released in time for me to  
5        prosecute my State Labor and Industries  
6        claim. I physically found them.

7                    And then when we went to the  
8        Laboratory and said, "You need to release  
9        them because these are part of her exposure  
10       records that are required under law," the  
11       Laboratory replied to the Department of  
12       Energy employee who was handling the Employee  
13       Concerns Department, "Well, you can't have  
14       that because that physically belongs to CH2M  
15       Hill." Battelle was the contractor running  
16       that laboratory, and they were holding them  
17       for the other contractor, saying that they  
18       belonged to CH2M Hill.

19                    To his credit, the Department of  
20       Energy employee said, "Well, you know" -- and  
21       his name was Ken Hor and he was from Los

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1 Alamos, if any of you remember Ken -- <sup>he</sup> ~~321~~  
2 said, "You know, you can either give me that  
3 report or I can lock down your laboratory for  
4 a month for an audit. What do you think it's  
5 going to be?" So, the Department of Energy  
6 has those records, but they have yet to  
7 release them under my claim for Energy  
8 Employees' Compensation.

9 So, for anyone on the Board to  
10 assume that the contractors are playing with  
11 an even hand with the workers and their  
12 injuries, including the radioactive injuries,  
13 all of the accidents, incidents, and off-  
14 normal occurrences are not being reported the  
15 way you think they are, simply because humans  
16 are involved who think they are protecting  
17 their jobs.

18 So, I would encourage you to not  
19 look with a jaundiced eye at the, quote,  
20 "recent SECs that are looking towards  
21 approval." At Hanford, we had reactors

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1 operating through 1988, yet our SEC ends  
2 currently December 31st of 1983. So, we know  
3 that there's plenty of product on the site.  
4 It's still on the site.

5 We just finished emptying the K-  
6 Basins of the spent rods, and we still have  
7 all of the fuels that are being stored at the  
8 site because there is no national repository.

9 People are being exposed on a pretty regular  
10 basis. You can read the local newspaper.

11 DOE constantly reports that  
12 nobody was exposed on any. So, I would  
13 encourage you to look beyond the front-page  
14 articles. I would encourage you to actually  
15 go to the archives for the work records.

16 As a planner at the Hanford site,  
17 all of my documents were archival. They are  
18 in archives in Seattle. And for the Hanford  
19 site, that's where we found many of the work  
20 records that were supposedly gone for  
21 contractors. Individuals went to the federal

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1 archive in Seattle and found those records<sup>323</sup>  
2 for the workers. I would encourage you to do  
3 the same. They are indexed, but they are not  
4 computerized.

5 So, when you are asking, "What  
6 happened and where are things?" RWPs and the  
7 work package are in a permanent archive in  
8 Seattle. It is not going to be fun to look  
9 through them, but they are indexed. And that  
10 is the majority of the information from my  
11 accident ended up.

12 So, therefore, I would think it  
13 would be reasonable to predict that you're  
14 going to find incidents for Rocky Flats and  
15 for Hanford, whatever contractor it was -- I  
16 don't care what contractor it is -- continues  
17 to cover up things because they are saving  
18 their contract and they are trying to lower  
19 their operating costs.

20 Even though the contractors are  
21 indemnified by their contracts with the

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1 Department of Energy for all costs for labor<sup>324</sup>  
2 and industry claims, including the money to  
3 pay attorneys to fight the workers, that  
4 doesn't stop them from limiting their  
5 liability elsewhere. Because, remember, a  
6 labor and industry claim is only a labor and  
7 industry claim in the state if it's an  
8 accident. If it can be proven that they knew  
9 about it and could have avoided it, it's not  
10 an accident and they are liable anyway.

11 I thank you for your time, and I  
12 am so happy for all the Rocky Flat folks.

13 (Applause.)

14 CHAIRMAN MELIUS: Thank you,  
15 Faye.

16 Before I turn to comments from  
17 the phone, is there anybody here that I've  
18 skipped that signed up for public comments?  
19 To give public -- did you sign up? Okay. I  
20 don't have you on the list. So, come on up  
21 to the microphone, then.

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1 MS. JERISON: Thank you ~~for~~<sup>325</sup>  
2 allowing me to speak. My name is Deb  
3 Jerison. I am the director of the Energy  
4 Employees Claimant Assistance Project.

5 My father was a worker at the  
6 Mound Plant in Ohio, and he died in 1960. In  
7 the early 1950s, Mound did separation work  
8 with materials containing radium-226,  
9 actinium-227, and thorium. This work was  
10 done in the cave, later known as "the old  
11 cave," in the GP building.

12 Because the old cave was too  
13 heavily contaminated to be cleaned up, it was  
14 entombed in 12 inches of concrete in the late  
15 '50s, and another room was built on top of  
16 it. The GP building, which was renamed SW  
17 building, was connected to our building. It  
18 starts to sound like alphabets.

19 A crack developed in the floor of  
20 the room filled over the old cave and  
21 radiation from the entombed area escaped into

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1 SW and R buildings until the problem was <sup>328</sup>  
2 corrected some 20 years later.

3 The 1959-to-1980 Mound SEC was  
4 established on May 4th, 2010, to cover  
5 workers who had been exposed to this  
6 radiation. Although tritium played no role  
7 in the contamination, NIOSH determined that  
8 this SEC Class would be defined as all  
9 workers of the Department of Energy, its  
10 predecessor agencies, and their contractors  
11 and subcontractors who were monitored for  
12 tritium exposure while working at the Mound  
13 Plant in Miamisburg, Ohio, from March 1st,  
14 1959, through March 5th, 1980. And then the  
15 regular 250 days stuff.

16 The justification behind this  
17 Class Definition was that all workers in the  
18 SW and R buildings had been monitored for  
19 tritium during the time period of the SEC.  
20 If this had been true, the definition might  
21 have worked. However, both R and SW

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1 buildings had cold areas where the workers<sup>327</sup>  
2 were not monitored.

3 On June 11th, 2010, the Board  
4 recommended the SEC using NIOSH's Class  
5 Definition. NIOSH began suspecting there  
6 were problems with the logbooks that NIOSH  
7 used to base its list of eligible claimants  
8 on at this point.

9 The logbooks were problematic for  
10 several reasons. Because Mound had recycled  
11 HP numbers, these numbers were not reliable  
12 sources of identification for all years.  
13 Social Security Numbers were not used. Names  
14 in the logbooks were illegible and  
15 misspelled. Nicknames were used. People  
16 were not always listed by the same name.

17 However, even after NIOSH was  
18 aware of these problems, they didn't alert  
19 DOL or the Advisory Board until six months  
20 had passed. Then, on December 22nd, 2010,  
21 the NIOSH lead sent an email stating that he

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1 had forgotten about the cold areas in SW and  
2 R buildings when he wrote the Class  
3 Definition. If there were workers in these  
4 buildings who weren't monitored, then the  
5 Class Definition is not valid.

6 There were additional problems in  
7 determining who had a tritium bioassay and  
8 who didn't. Claimants found MESH database  
9 records indicating tritium bioassay in their  
10 DOE files and turned these into DOL as proof  
11 of bioassay. NIOSH stated that these were  
12 not valid proof and at some point circulated  
13 a justification for this. However, this  
14 justification is undated and unsigned and  
15 doesn't show any citations or documents which  
16 informed this decision.

17 I sent two reports to NIOSH on  
18 these problems. I spent weeks reviewing  
19 Mound documents and the history of the Mound  
20 MESH database and came to the conclusion that  
21 the MESH database was probably reliable.

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1 NIOSH didn't respond to either of these  
2 reports, as far as I can remember.

3 On February 15th, 2011, NIOSH  
4 suddenly realized that there were cold area  
5 workers in the R and SW buildings and  
6 determined that an 83.14 should be created  
7 for all workers.

8 Then, on February 18th, NIOSH  
9 suddenly reversed this decision after talking  
10 to an individual and the Office of General  
11 Counsel. The reason for this reversal was  
12 redacted from the emails I have, and it is  
13 very important that the Advisory Board and  
14 its contractor review and evaluate the  
15 reasons for this reversal. I would like to  
16 know what reversed the decision as well.

17 Yesterday, after talking to a  
18 chemist, another set of possible problems  
19 with this SEC has come to light. I'm way  
20 over my head with this. I really don't  
21 understand it yet. NIOSH decided this Class

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1 based on radon only. As I understand it, <sup>315</sup>~~330~~  
2 is possible that other compounds or oxides  
3 were formed from the daughter products of the  
4 radioactive material leaking out of the  
5 entombed old cave along with the radon.

6 Also, what instrument or  
7 instruments were used to measure the leaking  
8 radon radiation level? Apparently, this  
9 could make a big difference when evaluating  
10 different kinds of radiation.

11 Lastly, what is the stated  
12 uncertainty for the radiation measurement?  
13 Was it statistical uncertainty or systematic  
14 uncertainty?

15 These are some of the questions  
16 that still need to be answered. I feel the  
17 defective Class Definition, the defects of  
18 the logbooks, and the problems with  
19 interpreting the MESH database mean that an  
20 83.14 for all workers is still called for.

21 And thank you so much for passing

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1 the Rocky Flats SEC. 331

2 (Applause.)

3 CHAIRMAN MELIUS: Thank you.

4 Stephanie Carroll.

5 MS. CARROLL: Hello. First, I  
6 would like to say thank you to the Board for  
7 accepting the validity of the science that  
8 was presented by NIOSH, SC&A, the petitioner,  
9 workers who were presenting science, and I  
10 appreciate that you accepted that.

11 I also would like to thank Terrie  
12 Barrie for her tireless pursuit of truth and  
13 justice for the workers. She has just been  
14 amazing, and at all hours she is willing to  
15 answer the phone, get on the email, accept  
16 documents. She has just done some really  
17 great work, along with all the Rocky Flats  
18 nuclear workers who for years have been  
19 working to get this SEC passed. I appreciate  
20 all their work, and I'm so glad so many  
21 people came today, too.

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1 I am hoping that you will<sup>332</sup>  
2 continue the investigation to expand the SEC  
3 to the later years. One of the things I  
4 wanted to present was one of my clients had  
5 done an affidavit at one of the meetings, and  
6 he was talking about a tritium job in the  
7 later years. He was in D&D. And he said  
8 that there were problems with the urinalysis,  
9 topping off the urine when there wasn't  
10 enough in the vials. They were doing that.

11 But I found a document of his.  
12 Actually, he had it. It was not in his  
13 health physics file. So, I'm just going to  
14 read the letter that was sent to him in  
15 regards to his urinalysis, in part.

16 "Attached are the results of the  
17 pre-job sample number and post-job urine  
18 samples for a special project for tritium.  
19 As can be seen on the attached datasheets,  
20 your baseline urine sample result was below  
21 the decision level. It was background for

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1 tritium. The first analysis," which was done  
2 the next day, right after the job, "of your  
3 post-job urine sample was greater than the  
4 decision level. It was positive. Due to the  
5 first positive result, your post-job sample  
6 was analyzed a second time."

7 Why? And they used the same  
8 urine. And the analysis failed. And by the  
9 way, that analysis was done, I think, a  
10 couple of weeks after the first one. That  
11 also was not included in this letter that was  
12 sent to him.

13 "The third analysis of the same  
14 urine sample was background for tritium. No  
15 sample was available for the fourth  
16 analysis." I don't know what that means.

17 "The urine data is considered  
18 inconclusive because the first analysis of  
19 the post-job sample was positive, and a  
20 subsequent re-analysis of the same sample was  
21 background." I don't understand that. And

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1 this is 1993 science that was being done <sup>at</sup> ~~334~~  
2 Rocky Flats.

3 "Based on the workplace  
4 indicators at the time of the job, there was  
5 no release of tritium to the workers in the  
6 immediate area. Because no tritium was  
7 released outside of the downdraft table,  
8 there is no reason to suspect that an intake  
9 occurred."

10 What this tells me is that the  
11 air monitoring, which is probably what they  
12 were using to determine if there was a  
13 release that day, overshoot and overrode a  
14 bioanalysis of this worker.

15 "Therefore, we cannot confirm  
16 that any intake of tritium occurred." So,  
17 his first positive analysis is discounted.

18 So, these are the kinds of  
19 urinalysis that we are looking at to do  
20 bounding for tritium. Should we be doing  
21 that when in 1993, when things are supposed

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1 to be becoming -- you know, science <sup>is</sup> 335  
2 getting better, and as time went by, I think  
3 LaVon said something about -- I mean, I am  
4 very happy with LaVon's work, but I have to  
5 say that -- that there were improved bioassay  
6 procedures as time went by.

7 Now, the thing with the  
8 improvement of the bioassay procedures: there  
9 are no procedure guides for these labs.  
10 Where are they? Now, if we could see the  
11 procedures that were happening with this  
12 bioanalysis, then I think we could make a  
13 determination on if they worked or not. But,  
14 by this letter in 1993 related to tritium, I  
15 mean, those procedures don't seem like  
16 science to me. But I am not a scientist.  
17 So, I'll let the Working Group and the Board  
18 and everybody else look at that.

19 I also found a document that was  
20 written -- let's see -- oh, it's called --  
21 now, this is concerning the uranium or the

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1 U-233 -- it is called "Manual of Good  
2 Practices at Uranium Facilities," authored by  
3 Bryce Rich, Stuart Hinnefeld, Clayton  
4 Lagerquist, all Rocky -- well, Lagerquist is  
5 at Rocky Flats -- Mansfield, Munson, and  
6 Wagner.

7 In there, there was a quote about  
8 air sampling, and this is it: "Although they  
9 play similar roles, there may not be an  
10 equivalence or fixed relationship between  
11 breathing zone sampling and bioassay."  
12 That's breathing zone sampling. That's  
13 supposed to be the best, right?

14 "It is usually not possible to  
15 accurately estimate individual uptake or the  
16 resulting internal dose from air activity  
17 exposure estimates. It is also difficult to  
18 accurately estimate previous internal uptake  
19 from bioassay measurements."

20 I just think that was kind of  
21 amazing. So, I have that document. I will

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1 be turning it in and maybe going through<sup>337</sup>  
2 that.

3 The other thing that was  
4 mentioned was raffinate, and that SECs have  
5 been passed, I believe, because of that.

6 So, I will be turning in the  
7 document, and I appreciate you listening to  
8 my non-scientific review of these scientific  
9 issues. So, thank you.

10 And the other thing, I just want  
11 to say, we really need to celebrate this  
12 incredible point in time, and, like, really  
13 be happy about something great that happened.

14 It is going to affect people in so many  
15 ways. In fact, generations of people are  
16 going to be affected.

17 So, thank you so much, everybody,  
18 for all your hard work, everybody up there  
19 and back here as well. Thank you. That's  
20 all I have.

21 CHAIRMAN MELIUS: Thank you.

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1 (Applause.) 338

2 The next person I have signed up  
3 is Dan McKeel, who I believe is on the  
4 telephone. Dan, are you there?

5 MR. McKEEL: Yes. Yes, I'm here.

6 Can you hear me, Dr. Melius?

7 CHAIRMAN MELIUS: Yes, I can. Go  
8 ahead.

9 MR. McKEEL: All right. Good  
10 afternoon. I'm Dan McKeel. I'm the GSI,  
11 SEC-0105, and Dow Madison and Texas City  
12 Chemicals co-petitioner.

13 I have three main concerns that  
14 address what was said today. The first one  
15 is just a comment, and that is that I was  
16 unable to use the Live Meeting software  
17 because it said that my Apple Mac Safari  
18 browser wasn't supported. So, that's just a  
19 comment. I think it is too bad that Mac fans  
20 are discriminated against.

21 The second one was just before

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1 the last break Dr. Melius had mentioned that  
2 there might be potential votes on the GSI  
3 TBD-6000 and the DuPont Deepwater Works TBD  
4 reviews tomorrow morning on October the 17th.

5 That caught me by surprise because I was not  
6 aware that TBDs are voted upon. In any case,  
7 Dr. Ziemer wrote me a nice email in response  
8 to my question and said there would be no  
9 votes on GSI tomorrow morning.

10 Maybe the most important thing  
11 that I have to bring up is that I was  
12 absolutely astounded to hear speaker two of  
13 this public comment session, who offered some  
14 new information that probably relates the  
15 Rocky Flats magnesium-thorium alloy plate  
16 issue that Terrie Barrie and I have been  
17 quite interested in pursuing, based on a tip  
18 that she received.

19 We followed up on that tip with a  
20 dual FOIA request to both NNSA and Department  
21 of Energy Legacy Management, which we filed

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1 on 5/9/13. And we have yet to receive ~~any~~<sup>340</sup>  
2 information back from them, no report.

3 We did have a \$6,250 fee that the  
4 Department of Energy was going to charge that  
5 was waived. We are happy for that.

6 But, to date, we have not gotten  
7 any responsive records. The Department of  
8 Energy has estimated that there are  
9 approximately 400 boxes of Rocky Flats  
10 records at Los Alamos that need to be hand-  
11 searched, and that would probably take until  
12 the end of November of 2013 to get those  
13 records.

14 They also indicated that some of  
15 the records that were available are probably  
16 classified, and that it would probably take  
17 about two years, even though there was  
18 computer indexing of those classified  
19 records, just to get through the reviews that  
20 have to take place at the Department of  
21 Energy.

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1                   And I would just comment that  
2                   these records have been withheld for many  
3                   years. We have been interested in this  
4                   question since 2006, when Dow was given its  
5                   83.14 SEC. So, I really hope that everybody  
6                   will redouble their effort. I hope they will  
7                   interview the second speaker tonight. He  
8                   mentioned, in particular, working for many  
9                   years at the Rocky Flats Mod Center, the  
10                  Transport Modification Center. Our tip  
11                  involved that type of employment at that  
12                  particular center doing vehicle retrofitting  
13                  of semi-trucks and railroad cars.

14                  And so it seems obvious to me  
15                  that this person has information that is  
16                  highly germane to the other thorium issues  
17                  that LaVon Rutherford talked about. And I  
18                  hope that NIOSH will get together with this  
19                  gentleman, take him up on his offer, and do a  
20                  secure interview in a place where he's  
21                  comfortable.

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1                   The other comment I want to make<sup>342</sup>  
2 relates to the fact that Dr. Paul Ziemer, who  
3 is Chair of the TBD-6000 Work Group, will  
4 review the current status of TBD-6000 and GSI  
5 Appendix BB tomorrow morning.

6                   The reason why I wanted to  
7 address you today is because I am concerned  
8 that the petitioners' viewpoint may not be  
9 accurately represented. This particular Work  
10 Group has a very long history of essentially  
11 ignoring information from the petitioners,  
12 including 52 scientific White Papers I have  
13 submitted to them during their 18 meetings  
14 held since 2008.

15                   One such recent paper was two AEC  
16 NYO-4699 reports that provided the only  
17 available measured data on 2225 MeV  
18 betatrons, photons, neutrons, with matching  
19 operator film badge data. The TBD-6000 Work  
20 Group Chair refused to task SC&A to review  
21 these papers. The Board technical contractor

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1 admitted not having read this key paper that<sup>343</sup>  
2 was submitted by me to the Work Group a full  
3 six weeks prior to their latest October 11th  
4 Work Group meeting, just about a week ago.

5 I have also asked the NIOSH  
6 Docket Office, which usually is very  
7 responsible, and so far they have not posted  
8 these important papers to the DCAS website  
9 under the discussion papers for this meeting.

10 They are posted under Docket 140.

11 The other examples of why I am  
12 concerned about the GSI TBD presentation are  
13 as follows: On May the 17th, 2013, HHS  
14 accepted our administrative review for  
15 SEC-0105, in which we cited 44 specific  
16 errors we thought had been committed. And  
17 that administrative review is now being  
18 reviewed by the three-member HHS independent  
19 review panel. So, it has been since May. It  
20 is now October. Five full months, and we  
21 still have a final-final HHS decision and no

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1 panel report. I understand it takes a long<sup>344</sup>  
2 time, but it seems to me this is a very long  
3 time.

4 I also am very concerned because  
5 the NIOSH Docket Office has posted this  
6 administrative review on Docket 140 and as a  
7 discussion paper for today's meeting and for  
8 the TBD-6000 Work Group meeting a week ago.  
9 However, there is an addendum paper that I  
10 also submitted to the Work Group and the full  
11 Board on October the 7th, but I also sent  
12 that to the Docket Office and asked that it  
13 be a discussion paper for this meeting. And  
14 that paper has not been posted yet, and that  
15 is nine days after I submitted it.

16 So, my question is, I wonder why  
17 this is so difficult. This is a very  
18 important paper. Not only does it add twenty  
19 new errors that really are issues that need  
20 to be taken up by the Work Group, following  
21 the 9-to-8 vote on 12/11/12 to deny SEC-0105.

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1                   So, those are added to the other<sup>345</sup>  
2 errors that were in the main administrative  
3 review. But it also lists nineteen still  
4 open GSI SEC and Appendix BB issues for the  
5 SC&A findings that still need to be worked  
6 through by the TBD-6000 Work Group.

7                   The third issue is not directly  
8 related to GSI, but it is related to the fact  
9 that the DOE facilities database has been  
10 offline from August 23rd, apparently due to  
11 hacking. There was a target date to get back  
12 online by September the 24th, but so far that  
13 hasn't happened. So, I am happy that this is  
14 being rewritten to protect against that sort  
15 of incursion, but that is a very important  
16 database that a lot of people use.

17                   Another point that concerns me is  
18 in mid-July we acted on advice from NIOSH for  
19 a part-time radiographer who requested copies  
20 of his Landauer film badge records for the  
21 time he worked at GSI. That office advised

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1 him to send them a form stating who he was<sup>346</sup>  
2 which he did promptly. And, anyway, we  
3 returned all the records to them in mid-July.

4 He has not heard a word from the  
5 CDC FOIA/Privacy Act Officer who sent him the  
6 first letter and to whom he returned his  
7 form. We called a week ago, and we called  
8 again today. That office is not on furlough,  
9 and we still haven't gotten an answer back.

10 And, finally, I want to just  
11 bring up the issue of PERs that was mentioned  
12 today, and there will be a presentation  
13 tomorrow about the need for PERs. And what  
14 you will see on slide number 3 of that  
15 presentation is a statement that, and I  
16 quote, "Each PER will be reviewed by SC&A."  
17 Well, the GSI PER-24 was released in October  
18 of 2007 and involved four early dose  
19 reconstructions that were done using another  
20 document, TIB-004, rather than Appendix BB.

21 And I have simply been trying to

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1 find out for the last five years, actually, 347  
2 what actions NIOSH took about that PER. I  
3 have made multiple direct requests to various  
4 people at NIOSH and on the Board, and I  
5 simply cannot get an answer back to what  
6 happened to this PER.

7 So, it's a small matter. It's  
8 not going to make or break the SEC, but it's  
9 just exemplary of how difficult it has been  
10 to get really straightforward information.

11 So, finally, I want to thank  
12 Terrie Barrie for helping me with many  
13 things. But I want to congratulate all the  
14 workers who richly deserve the SEC today. I  
15 was present when there was the first SEC-0030  
16 meeting, and the reaction was so different  
17 and so sad at that SEC outcome and so happy  
18 today, and that makes me very glad as well.

19 Thank you very much.

20 CHAIRMAN MELIUS: Thank you, Dan.

21 The next person I have listed is

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1 an Al Frowiss, Sr. I believe he is on the <sup>348</sup>  
2 line. Maybe not.

3 MR. FROWISS: Can you hear me?

4 CHAIRMAN MELIUS: Now we can,  
5 yes.

6 MR. FROWISS: Okay. This is Al  
7 Frowiss, Sr., in California. [Identifying  
8 information redacted].

9 I have two questions about some  
10 SECs. The first one is very short. The  
11 second one is almost as short.

12 The first question I have is on  
13 the Fernald and Pantex SECs that you  
14 approved, your Board approved in July. Do  
15 you have any idea when the Secretary will be  
16 sending those 30-day letters to Congress?  
17 They certainly haven't appeared yet. And  
18 that's one of the questions that I have.

19 The second question has to do  
20 with the issue this morning, Sandia-  
21 Livermore. And in particular, the question I  
22 have is about the employees that were there

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1 for Sandia-Livermore between 1956 and October 349  
2 of `57. They were apparently housed across  
3 the street at the Lawrence Livermore  
4 facility, which does have an SEC for that  
5 period.

6 However, when the Department of  
7 Labor adjudicates claims, they are going to  
8 be looking for evidence that the Sandia  
9 employee was, you know, in an SEC, let's just  
10 say for the 1956 to October of `57 period.  
11 And I have a feeling that that's going to be  
12 an administrative problem. And I just wonder  
13 whether it would be simpler if you just  
14 simply extended the SEC for Sandia to  
15 encompass that early period of, whatever it  
16 is, eighteen months or something.

17 And those are my questions.

18 CHAIRMAN MELIUS: I believe Stu  
19 can answer at least the first question.

20 MR. HINNEFELD: Yeah, I can speak  
21 to the first one. The Secretary, for the

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1 Pantex and the Fernald Classes, the Secretary<sup>350</sup>  
2 signed the designation letter on the 30th of  
3 September, which was the day before the  
4 government shutdown.

5 The reason that we have yet to  
6 receive copies of the signed thing is  
7 because, frankly, the people who do that got  
8 furloughed. So, we have not received the  
9 signed copies, and that's why they are not on  
10 our website yet.

11 MR. FROWISS: I see.

12 MR. HINNEFELD: But they were  
13 signed on the 30th.

14 MR. FROWISS: So, it should be  
15 law, presumably, October 30th, then?

16 MR. HINNEFELD: Yeah, that sounds  
17 right.

18 MR. FROWISS: Okay.

19 MR. HINNEFELD: With respect to  
20 the second question, I don't know. That  
21 might be a question to deal with the

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1 Department of Labor. I'm not so sure <sup>on</sup>~~351~~  
2 that.

3 CHAIRMAN MELIUS: Yeah, and the  
4 Department of Labor isn't here today because  
5 of the government shutdown. But my  
6 understanding is that the Department of Labor  
7 does do sort of an implementation guidance on  
8 these Class Definitions and SECs. So, that  
9 kind of issue may very well be covered there  
10 in order for them to address, you know, the  
11 concern that you raised. I think that may be  
12 easier and more straightforward than the  
13 other suggestion, which would involve a whole  
14 new set of actions by NIOSH and the Board,  
15 and so forth.

16 MR. FROWISS: I see.

17 CHAIRMAN MELIUS: Okay.

18 MR. FROWISS: All right. Thank  
19 you.

20 CHAIRMAN MELIUS: Yeah, okay.  
21 You're welcome.

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1                   Okay.     I think I have gone  
2 through the list.   Does anybody else think  
3 that they signed up that we might have  
4 missed?

5                   (No response.)

6                   If not, that finishes our public  
7 comment period.   We appreciate everyone's  
8 attention and time.   And thank you.   We'll  
9 continue to work on this.   So, you may very  
10 well see us again.

11                  Adjourned.

12                  (Whereupon, the meeting in the  
13 above-entitled matter was adjourned at 5:33  
14 p.m.)

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