

UNITED STATES OF AMERICA  
CENTERS FOR DISEASE CONTROL

+ + + + +

NATIONAL INSTITUTE FOR OCCUPATIONAL  
SAFETY AND HEALTH

+ + + + +

ADVISORY BOARD ON RADIATION AND  
WORKER HEALTH

+ + + + +

77th MEETING

+ + + + +

WEDNESDAY  
MAY 25, 2011

+ + + + +

The meeting convened at 8:30 a.m.,  
Central Daylight Time, in the Crowne Plaza St.  
Louis-Downtown, 200 North Fourth Street, St.  
Louis, MO, James M. Melius, Chairman,  
presiding.

PRESENT:

JAMES M. MELIUS, Chairman  
HENRY ANDERSON, Member  
JOSIE BEACH, Member  
BRADLEY P. CLAWSON, Member\*  
R. WILLIAM FIELD, Member  
MARK GRIFFON, Member  
RICHARD LEMEN, Member  
JAMES E. LOCKEY  
WANDA I. MUNN, Member

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

PRESENT (continued) :

ROBERT W. PRESLEY, Member

GENEVIEVE S. ROESSLER, Member

PHILLIP SCHOFIELD, Member

PAUL L. ZIEMER, Member\*

TED KATZ, Designated Federal Official

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

## REGISTERED AND/OR PUBLIC COMMENT PARTICIPANTS:

ADAMS, NANCY, NIOSH Contractor  
AL-NABULSI, ISAF, DOE  
ANDERSON, LOIS\*  
BURGOS, ZAIDA, NIOSH  
DAVIES, LOIS\*  
ELLISON, CHRIS, DCAS  
FESTER, THOMAS\*  
FITZGERALD, JOSEPH, SC&A  
FOULDES, TOM\*  
FUORTES, LARS  
GLOVER, SAM, DCAS  
HINNEFELD, STU, DCAS  
JOHNSON, MARY\*  
KINMAN, JOSH, DCAS  
KOTSCH, JEFF, DOL  
LEITON, RACHEL, DOE  
LEWIS, GREG, DOE  
LIN, JENNY, HHS  
MAKHIJANI, ARJUN, SC&A  
McFEE, MATT, ORAU Team  
NETON, JIM, DCAS  
RABINOWITZ, RANDY  
RAFKY, MICHAEL, HHS  
ROLFES, MARK, DCAS  
RUTHERFORD, LAVON, DCAS  
STEINBERG, GARY, DOL  
STIVER, JOHN, SC&A  
TAULBEE, TIM, DCAS  
TRIPLETT, TINA  
VALERO, OSCAR\*  
WADE, LEW, NIOSH Contractor  
WEST, TONY  
ZINK, BRIAN

\*Participating via telephone

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

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

2 8:29 a.m.

3 CHAIRMAN MELIUS: Good morning  
4 everybody, we'll get started this morning.  
5 And we'll start with the usual, general work  
6 from Ted here, announcements and so forth.

7 MR. KATZ: Right. Good morning  
8 and welcome everybody on the line and in the  
9 room, Advisory Board on Radiation and Worker  
10 Health. This is the 77th meeting, Day 2.

11 The first announcement to make, I  
12 think everyone in the room probably knows, but  
13 for people on the line, we have a schedule  
14 change today. We, if you see the Agenda, if  
15 you don't have the Agenda, it's on the web, on  
16 the NIOSH webpage under the Board and under  
17 the Meeting Section.

18 We had scheduled for Savannah  
19 River Site to be the first item on the Agenda  
20 at 8:30, but we've moved that to accommodate a  
21 Board Member who's coming in a little late  
22 this morning, to 11:00 a.m.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   And I believe we've gotten a hold  
2 of the petitioners on this. So, Savannah  
3 River will be 11:00 a.m., and in its place  
4 this morning we have a work session from 8:30  
5 to 9:30.

6                   Let me also note, again, for  
7 people on the line, all of the presentations  
8 should be, for this meeting, should be on the  
9 web at this point. And they're also at that  
10 same Board, the Board's section of the DCAS  
11 web page, under Meetings.

12                   Last thing, just to note, for  
13 people on the line again, is please mute your  
14 phone while you're listening. If you don't  
15 have a mute button, use \*6.

16                   And then if you were to address  
17 the group, you would press \*6 again, to come  
18 off of mute. There is a public session today,  
19 it's at 5:30 this evening. And that covers  
20 the items for the meeting, thanks.

21                   CHAIRMAN MELIUS: Do you want us  
22 to check on Board Members --

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MR. KATZ:     Yes, roll call for  
2 Board Members. We have Members in the room I  
3 can see, but a number of Members are in other  
4 places. Let me just check and have you speak  
5 up. Dr. Ziemer, others who might be on the  
6 line?

7                   MEMBER ZIEMER:     Paul Ziemer is  
8 here.

9                   MR. KATZ:     Any other Board Members  
10 on the line?

11                   (No response.)

12                   MR. KATZ:     Very good.

13                   CHAIRMAN MELIUS:     And we are  
14 expecting Mark Griffon to be arriving a little  
15 bit later. He emailed me at 5:00 a.m. to get  
16 some information about the meeting. I didn't  
17 answer.

18                   (Laughter.)

19                   CHAIRMAN MELIUS:     At least, not at  
20 5:00 a.m. What I thought we'd do this  
21 morning, up until time for the Sandia  
22 presentation, is we would go through our Work

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Group reports and Subcommittee reports, at  
2 least, I think we can get most of them done.  
3 We do have a few Chairs that are missing so  
4 we'll have to skip over those.

5 And I think the first one is, on  
6 my list, is Brookhaven.

7 MEMBER BEACH: At this time  
8 there's no change from my last update, other  
9 than I believe that I reported at the big  
10 teleconference.

11 There is a Work Group meeting  
12 scheduled, half a day on July 7, for  
13 Brookhaven.

14 CHAIRMAN MELIUS: Okay. Fernald  
15 we've heard from. Hanford, we talked a little  
16 bit about, during the public comment period  
17 yesterday, and we will hear a little bit later  
18 this afternoon, about the NIOSH Evaluation of  
19 the most recent petition from Hanford.

20 Meanwhile, we've been working,  
21 SC&A has been working, there's been a number  
22 of changes in that, so we've sort of regrouped

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 and identifying sort of key issues going  
2 forward on that. We'll have to then figure  
3 out how to handle the new petition also, at  
4 some point, depending on how we handle that.

5 I know, Arjun, do you want to say  
6 a few words about this?

7 DR. MAKHIJANI: Thank you, Dr.  
8 Melius. Our direction from the Work Group has  
9 been to review the updated Site Profile from  
10 2010, of NIOSH from the remaining SEC period,  
11 because that's where the dose reconstruction  
12 method is defined.

13 So I've gone over the matrix for  
14 the issues that still need to be resolved and  
15 I'm preparing a report.

16 We've completed the evaluation of  
17 the completeness and adequacy of the data for  
18 various radionuclides. And so the report is  
19 rather long. And, as I mentioned yesterday,  
20 we've done the interviews for Building 324,  
21 and are evaluating that for the SEC period.

22 CHAIRMAN MELIUS: Good. And so we

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 would be expecting your report --

2 DR. MAKHIJANI: In early June,  
3 maybe at the end of the first --

4 CHAIRMAN MELIUS: Okay.

5 DR. MAKHIJANI: In the first ten  
6 days of June we will send the report for the  
7 DOE for review. And maybe a Work Group  
8 meeting in July.

9 CHAIRMAN MELIUS: So, Members of  
10 that Work Group, if you take note and we will  
11 circulate some dates and set up a meeting  
12 sometime in July, for that one.

13 Thank you, Arjun, for that.  
14 Idaho, I know, Phil?

15 MEMBER SCHOFIELD: We are  
16 scheduled to meet --

17 MR. KATZ: Phil, your mic is not  
18 on.

19 MEMBER SCHOFIELD: We are  
20 scheduled to meet on June 21st, in Cincinnati  
21 for a Work Group session.

22 CHAIRMAN MELIUS: And are we

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 expecting all reports and updates and  
2 responses from NIOSH and so forth to be ready  
3 by then?

4 MEMBER SCHOFIELD: Yes.

5 CHAIRMAN MELIUS: Okay. I  
6 couldn't quite tell from the schedule and so  
7 forth. Good, okay. Dr. Ziemer, Lawrence  
8 Berkeley.

9 MEMBER ZIEMER: Nothing to report  
10 on Lawrence Berkeley.

11 CHAIRMAN MELIUS: Okay, thanks,  
12 sorry to surprise you there. Linde, Gen?

13 MEMBER ROESSLER: We're scheduled  
14 for a Work Group meeting on July 7th. We're  
15 sharing the day with the Brookhaven Work  
16 Group. Linde will be meeting in the afternoon  
17 at 1:00, and we'll begin our deliberations on  
18 SEC Petition 154.

19 And I understand that SC&A will  
20 have their comments to us in time for that  
21 meeting.

22 CHAIRMAN MELIUS: Okay, thank you.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1       LANL we'll have to postpone until Mark gets  
2 here. Mound.

3                   MEMBER BEACH: At this time there  
4 is no change for Mound, other than expected  
5 documents from NIOSH have been pushed back  
6 until I believe the May time frame.

7                   So, as soon as we have those in  
8 hand, there's three outstanding reports we're  
9 waiting for. They're pretty encumbered,  
10 they're large reports.

11                   Once we have the reports we'll  
12 schedule a Work Group meeting. So hopefully  
13 before the August meeting.

14                   CHAIRMAN MELIUS: Good. Pantex,  
15 Brad isn't here. I think Greg Lewis gave the  
16 update on that when we had some discussion at  
17 the time.

18                   And someone correct me if I'm  
19 wrong, from the Work Group, but the, there are  
20 plans for both a meeting in Germantown to go  
21 over documents, as well as possibly a site  
22 visit, if I understood correctly, in early

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 June?

2 MR. LEWIS: Yes, this is Greg  
3 Lewis. There's a meeting scheduled for I  
4 think June 16th or 13th --

5 CHAIRMAN MELIUS: Yes.

6 MR. LEWIS: -- in Germantown. And  
7 then I believe that SC&A is also going to be  
8 visiting Pantex sometime in mid June, although  
9 I'm not certain.

10 MEMBER BEACH: The week of the  
11 20th.

12 MR. LEWIS: The week of the 20th,  
13 okay.

14 CHAIRMAN MELIUS: And so forth.  
15 And, I think, my understanding is that those  
16 meetings will help to resolve issues related  
17 to Pantex and so I don't think it's -- it's  
18 even foreseeable we may have some resolution  
19 of that for August meeting.

20 We'll see. I may be optimistic  
21 but, I think, they're making significant  
22 progress, as I understand it.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 I know, Joe, do you want to have  
2 anything to add?

3 MR. FITZGERALD: Not too much. I  
4 think we have a lot of activity over the next  
5 four to five weeks. We just had a Work Group  
6 meeting, SC&A did an onsite classified review.

7 The Board is of course going to do  
8 its classified review in a couple of weeks for  
9 the onsite at Pantex in three weeks, as Greg  
10 noted.

11 And there's a number of documents  
12 going back and forth, including updated  
13 matrix, so I think there's been a lot of  
14 progress over the last month or two.

15 And, as you were saying, I think  
16 we're hopeful that in the next month or so, we  
17 can kind of get these things to closure.

18 CHAIRMAN MELIUS: Okay. Thanks,  
19 Joe. Pinellas, Phil.

20 MEMBER SCHOFIELD: Nothing new at  
21 this point. There have been some new  
22 documents, but we're having the same issues at

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Pinellas that we are having at Mound.

2 Since they're already putting,  
3 SC&A and NIOSH, putting the effort in at  
4 Mound, it would just be a duplication.

5 CHAIRMAN MELIUS: Okay, so, so I  
6 understand sort of the game plan would be to  
7 wait for the Mound --

8 MEMBER SCHOFIELD: Correct.

9 CHAIRMAN MELIUS: Yes, report --

10 MEMBER SCHOFIELD: If we can  
11 settle those issues there, then we can settle  
12 anything at Pinellas.

13 CHAIRMAN MELIUS: Okay, that makes  
14 sense and so forth. And you're on the Mound  
15 Work Group. Good, okay. Piqua, Dr. Poston is  
16 not here, so I don't think we have an update  
17 on that. Did they meet?

18 MR. KATZ: They did meet and they  
19 did agree on recommendations and so on, so  
20 that will be ready for August.

21 CHAIRMAN MELIUS: Good. Now that  
22 LaVon has left the room, we can tell him that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 he's about to, don't do too far, LaVon.

2 We go through these reports, we  
3 may put you on.

4 (Laughter.)

5 CHAIRMAN MELIUS: I should have  
6 let him get farther. Portsmouth, Paducah, K-  
7 25. I think this has a new name.

8 MEMBER SCHOFIELD: Yes, that's the  
9 gaseous diffusion plants and we are scheduled  
10 to meet on July 6. NIOSH has issued some new  
11 papers that SC&A still has to respond to.

12 CHAIRMAN MELIUS: Okay. I feel  
13 like we're having a naming contest for that,  
14 get a new acronym or something for that.  
15 Rocky, we have to wait for Mark.

16 Santa Susana, I don't think, Mike  
17 Gibson, you're not on the line, are you? I  
18 haven't heard him, okay. Josie?

19 MEMBER BEACH: We have nothing  
20 planned for Santa Susana, but I believe we  
21 have documents due some time towards the end  
22 of the year.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 CHAIRMAN MELIUS: Okay.

2 DR. NETON: We are working on  
3 those and I suspect within the next few weeks  
4 or so we'll have a proposition.

5 CHAIRMAN MELIUS: Okay, so we may  
6 need a Work Group meeting once those documents  
7 are out? Okay.

8 MEMBER ZIEMER: Dr. Melius?

9 CHAIRMAN MELIUS: Yes.

10 MEMBER ZIEMER: Ziemer here. On  
11 Santa Susana, I'm just looking at the DCAS  
12 matrix. They have several deliverables that  
13 show up for July 11th and 18th.

14 CHAIRMAN MELIUS: Right.

15 MEMBER ZIEMER: So, I think that's  
16 what Josie was referring to.

17 CHAIRMAN MELIUS: Yes, and Jim  
18 Neton confirmed that. We need to follow up  
19 and make sure Mike knows that and we can get  
20 that Work Group together at some point.

21 Or I don't know if they're going  
22 to want SC&A to review, but I think they

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 probably need to meet first and do that.

2 Savannah River we'll hear from in  
3 a little bit, when Mark Griffon gets here,  
4 hopefully. And, if Mark doesn't get here,  
5 we'll hear about it.

6 And Science Issues, I don't  
7 believe this Committee has met. We have a  
8 charge for that Committee to review and so  
9 forth.

10 Dr. Ziemer, not to put you on the  
11 spot, I don't know if you were listening when  
12 we were talking yesterday about CLL, I believe  
13 you were on the line.

14 MEMBER ZIEMER: Yes.

15 CHAIRMAN MELIUS: And we wanted  
16 the Science Work Group to review it. David  
17 Richardson has a conflict on that. So he  
18 wouldn't be able to participate.

19 Would you be willing to Chair that  
20 meeting?

21 MEMBER ZIEMER: I could do that.  
22 I heard another pretty good suggestion

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 yesterday for Dr. Lemen, but if he's not  
2 available, I will do it.

3 CHAIRMAN MELIUS: He appears to be  
4 reluctant.

5 (Laughter.)

6 MEMBER ZIEMER: Okay, I will work  
7 with Ted --

8 CHAIRMAN MELIUS: Yes, that's what  
9 I thought. Thank you very much, Dr. Ziemer.  
10 The Special Exposure Cohort Issues group did  
11 have a conference call and discussion on  
12 General Electric, and we'll report on that  
13 later this afternoon.

14 Subcommittee on Dose  
15 Reconstruction. Mark is not here, so I think  
16 we'll postpone that.

17 I was going to skip over  
18 Procedures, but Wanda, I can tell is ready.

19 MEMBER MUNN: Oh, good.

20 (Laughter.)

21 MEMBER MUNN: Procedures has only  
22 met twice this year. We have quite a gap

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 between our last meeting and our next one  
2 upcoming in July, because of other activities  
3 and the absence of a couple of our Members  
4 being out of the country for a while.

5 We have quite a bit on our plate,  
6 and we'll have a full agenda in July, when we  
7 do meet on the 14th. We have taken a look at  
8 our last meeting at some 14 of our two pagers  
9 that we are just about ready to put up on the  
10 website.

11 They are not quite ready yet  
12 because one of our Members wanted to make one  
13 or two minor adjustments, at least do a little  
14 editing before that happens. We also have  
15 another group of two pagers, just slightly  
16 larger than that, that are ready for us to  
17 address at this next meeting.

18 The really good news is that in  
19 the interim, our IT folks have finally gotten  
20 together the new format and new Working  
21 Regulations for our internal electronic matrix  
22 that we use to track things with.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   And we haven't taken it out for a  
2                   dry run yet. We'll be doing that in July.  
3                   But, we're very pleased that it's reached the  
4                   point it has and thank all of the people who  
5                   have been involved in them.

6                   CHAIRMAN MELIUS: Thank you. Any  
7                   questions for Wanda?

8                   (No response.)

9                   CHAIRMAN MELIUS: Okay.

10                  MR. KATZ: If I could just add  
11                  something. Wanda, the other thing that's  
12                  important that we'll be taking up at this  
13                  meeting is the portion of the Norton SEC  
14                  petition that is yet to be considered by the  
15                  Board.

16                  MEMBER MUNN: Thank you, Ted.  
17                  Yes, there are a couple of items which we  
18                  haven't had before, which will be new. Norton  
19                  will be one of them.

20                  CHAIRMAN MELIUS: Okay, thanks.  
21                  TBD-6000, Paul?

22                  MEMBER ZIEMER: Yes, Paul Ziemer

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 and I'm here on TBD-6000. The Work Group  
2 hasn't met since late last year because we've  
3 been awaiting some deliverables from NIOSH.

4 But I can now report on the status  
5 of those. First of all, on the main document,  
6 TBD-6000, all of the matrix issues have been  
7 resolved by the end of our last meeting.

8 And I can now report to you, this  
9 is in the deliverable list that the Board  
10 Members got in the last few days, that we have  
11 a June 20th, date listed for delivery and for  
12 the revision of TBD-6000.

13 So I believe that means we'll be  
14 in a position also for the old Dose  
15 Reconstruction Sheet reviewed for updating.

16 And of course the Work Group  
17 doesn't do that, but the fact that there will  
18 be a revised TBD available, I think will be  
19 good news for the petitioners as well as for  
20 the claimants, at least General Steel  
21 Industries.

22 The other thing to report is that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 for General Steel Industries, we now have the  
2 commitment from NIOSH for, on the so-called  
3 path forward, for four deliverables on July  
4 29th, dealing with radiography with radium  
5 sources and by St. Louis testing, and by  
6 portable x-ray sources and cobalt-60.

7 So all the radiography documents  
8 are going to be addressed in terms of source  
9 terms. And so the Work Group will plan to  
10 meet, we have to give SC&A time to review  
11 those documents.

12 And we'll need to, at this  
13 meeting, I think, this week we will meet to  
14 authorize SC&A to go ahead and review those  
15 documents when they become available.

16 And then the Work Group would meet  
17 probably late August or early September. I  
18 thought late August, although I've already  
19 heard from SC&A that their staff people might  
20 not be available until early September.

21 But, in any event, we will meet as  
22 soon as we can after the documents are

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 reviewed. There is another set of documents  
2 that are shown as having a deliverable date in  
3 December.

4 And these deal with betatron  
5 source terms, both the old and new betatron.  
6 Some activation issues for air activation and  
7 activation from uranium that was tested or  
8 handled in the betatron and steel activation  
9 from the betatron.

10 And then some related issues with  
11 the dose modeling and the film badge records  
12 in terms of determining the extent to which  
13 those complement or supplement each other.

14 So we have two sets of  
15 deliverables. I know, as far as the  
16 petitioners are concerned, they will be  
17 concerned about the fact that some of these  
18 deliverables will not show up now until  
19 December, which means we would get into, you  
20 know, February or so, before we could resolve  
21 everything.

22 And you heard the concerns

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 expressed by the Illinois Representative  
2 yesterday about this particular facility and  
3 the concerns the petitioners have about the  
4 time that has elapsed.

5           Anyway, that is what we have, what  
6 we see coming down the pike. I would  
7 certainly be my wish that we resolve all of  
8 these as quickly as we can upon receipt of the  
9 documents.

10           CHAIRMAN MELIUS: Okay, thank you,  
11 Paul. And I'll make a note, we will task  
12 SC&A, see if there are any other items that we  
13 need to task them with that come out of this  
14 session. TBD-6001, Henry.

15           MEMBER ANDERSON: We held our  
16 second meeting on May 16th, and we spent  
17 considerable time, because it was our second  
18 meeting, we felt we needed to have a name  
19 change, since we were disbanded as 6001.

20           So we're now going to be known as  
21 the Uranium Refining AWEs Work Group. So,  
22 that's the first thing.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 CHAIRMAN MELIUS: URAW.

2 MEMBER ANDERSON: URAW, right,  
3 URAW.

4 (Laughter.)

5 MEMBER ANDERSON: But at our May  
6 16th meeting we made great progress and we're  
7 just about closing out Hooker Electrochemical.  
8 What remains there is we're doing a very  
9 careful review of the use of the Surrogate  
10 Data there, but all the other issues have been  
11 resolved there.

12 So we're hoping in August to be  
13 able to have a final recommendation for the  
14 Board. ElectroMet, we also reviewed and we're  
15 narrowing down the number of issues there, as  
16 well. And then United Nuclear is our third  
17 site that we're just getting started on.

18 CHAIRMAN MELIUS: Thank you.  
19 Surrogate Data is gone, I think we got rid of  
20 that last meeting. Weldon Spring we'll hear  
21 from I think later on today.

22 And then Worker Outreach, I don't

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 believe Mike is on. Josie, do you want to  
2 update?

3 MEMBER BEACH: Yes, with Kathy's  
4 help I threw together a quick update this  
5 morning. And Wanda, I know you're on the Work  
6 Group, so if I miss anything, help me out,  
7 thank you.

8 We had our last Work Group meeting  
9 on December 16, and the focus of that meeting  
10 was to review the matrix items for OCAS PROC-  
11 12. That procedure we had five findings and  
12 five observations, so we reviewed all those.

13 We also did a follow up review of  
14 the Outreach Tracking System. During the  
15 October Work Group meeting, the Work Group  
16 agreed to focus on Objective 3, of our  
17 Implementation Plan, and Rocky Flats was  
18 chosen as the pilot site for the review of the  
19 workers' comments and how their comments are  
20 integrated into the technical work documents.

21 The plan was approved with some  
22 minor changes. Those changes were forwarded

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 to our Federal Official, Ted Katz, and the  
2 Office of General Counsel for approval.

3 That approval came back and the  
4 work began on January 5th. Let's see, the  
5 Objective 3, right now is about 50 percent  
6 complete. The Progress Report for that should  
7 be coming out.

8 The Work Group Members should be  
9 seeing that shortly. But at this time we've  
10 kind of put a hold on Objective 3 review,  
11 because the Work Group needs to get back  
12 together.

13 Kathy, the task lead, for SC&A  
14 needs some more guidance from the Work Group  
15 at this time. So we're hoping to get together  
16 with Mike and come up with a Work Group  
17 meeting shortly.

18 I do know there were several  
19 action items that came out of that list. Some  
20 that I do know of for SC&A, was they were  
21 required to provide documents that were  
22 necessary for the worker comments review.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           And I know NIOSH has supplied most  
2 of those documents by March. Wanda do you  
3 remember any other actions? I reviewed the  
4 transcript briefly, but didn't really pinpoint  
5 anything in the time I had this morning.

6           MEMBER MUNN: No, Josie, I haven't  
7 reviewed the transcript myself and I've slept  
8 since then, so. No, I don't remember anything  
9 else.

10          MEMBER BEACH: I know there  
11 several, most of them were pertaining to the  
12 procedure. But I think we're fairly close to  
13 coming to closure on PROC-12.

14          Unless anybody else has anything  
15 else, that's all I have.

16          CHAIRMAN MELIUS: Thank you, is  
17 this Rip Van Munn?

18                         (Laughter)

19          MEMBER MUNN: Works for me.

20          CHAIRMAN MELIUS: You looked well  
21 rested here. That concludes our, at least the  
22 reports, the Work Group Reports and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Subcommittee Reports that we have people  
2 available for. We'll surprise Mark.

3 John and Ted, do we have any  
4 tasking to do, relative to SC&A? Other, we  
5 have this GSI issue, I'm just asking if  
6 there's some more general stuff that we need  
7 to try to do at this meeting?

8 MR. KATZ: No, not that I'm aware  
9 of. John, do you have anything you're aware  
10 of?

11 MEMBER BEACH: While he's coming  
12 to the mic, I noticed that in the tasking that  
13 was sent out for SC&A, the Norton -- we had  
14 asked them to provide a review of OTIB-70, I  
15 believe, and I didn't notice that in that list  
16 that came out. So I wanted to ask about that.

17 CHAIRMAN MELIUS: Go ahead, John.

18 DR. MAURO: I'll start with that.  
19 Norton is, the Draft Report is in my hands,  
20 regarding, it was part of this Procedures. I  
21 sent it over to Procedures.

22 Issues had to do with OTIB-70. If

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 you recall, the Norton turned out to be an  
2 OTIB-70 issue for the residual period.

3 So, in effect, our review of  
4 Norton is complete and it has to do with the  
5 degree to which, that we feel comfortable with  
6 the way in which the residual period is being  
7 handled.

8 And that really relies on our  
9 review of OTIB-70, it's all interrelated. And  
10 we will see a report very soon, I've already,  
11 and Bill Thurber is working, it's done.

12 As far as other places, regarding  
13 the matters that were just discussed, where we  
14 can see some work, the only thing I would say  
15 is that we're probably at a point where we  
16 should be thinking about cases.

17 The next set, the 15th set, and  
18 also the set of cases that need to be, I  
19 noticed it before, the DR Subcommittee and the  
20 cases that need to be identified for our  
21 review of the PERs.

22 As sort of something that's been

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 languishing, as you know, we have completed a  
2 review of a number of PERs, but the work on  
3 them has never really been completed.

4           Because the last piece is to  
5 select cases, that would then evaluate the  
6 degree to which the PER was implemented. So  
7 we need, we do, I would request that the Board  
8 order the DR Subcommittee, start to consider  
9 the 15th set of DRs to review, the next set,  
10 and also DRs for, that support the PER Review  
11 Process.

12           MR. KATZ: So just to add to what  
13 John just said. The DR Subcommittee has sort  
14 of taken first steps on both of these.  
15 Because we've asked, I believe, DCAS to  
16 develop a new roster for the 15th, whatever it  
17 is, whatever set number we're on now, we did  
18 that at the last Dose Reconstruction meeting,  
19 a Subcommittee meeting.

20           So that should be going forward  
21 and they should be compiling that initial  
22 roster of possible cases and they're supposed

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 to be taking up, we tried to get that done in  
2 the last DR Subcommittee, but we should get  
3 that done in this one.

4 The assignment of cases for the  
5 PER that we were going to start with, which is  
6 the lymphoma one, I believe.

7 CHAIRMAN MELIUS: Thank you, good.

8 Since there doesn't appear to be any other  
9 tasking, at least general tasking we need to  
10 do for SC&A, why don't we take care of this  
11 GSI issue.

12 And, Paul, do you want to tell us  
13 what --

14 MEMBER ZIEMER: You need a motion?

15 CHAIRMAN MELIUS: I think we need  
16 a motion, yes, from the Work Group Chair.

17 MEMBER ZIEMER: Sure. I move that  
18 we task SC&A to review the four documents that  
19 DCAS is scheduled to release on July 29th,  
20 dealing with radiography at General Steel  
21 Industries.

22 And to report their results to the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Work Group, soon thereafter as they are able  
2 to.

3 MEMBER BEACH: I second that.

4 CHAIRMAN MELIUS: Second from  
5 Josie. Any discussion?

6 (No response.)

7 CHAIRMAN MELIUS: If not, all in  
8 favor, say aye.

9 (Chorus of ayes.)

10 CHAIRMAN MELIUS: Opposed?  
11 Abstained?

12 (No response.)

13 CHAIRMAN MELIUS: Okay, thank you.

14 I don't believe we have any other Board Work  
15 Session issues at this point in time. So, I  
16 think we would, might take the time now to  
17 hear from LaVon.

18 And we should all listen carefully  
19 to LaVon, since we have, we can't really start  
20 Sandia until 9:30, until the petitioners are  
21 around. So we have a half hour to ask  
22 questions.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 MR. RUTHERFORD: Great.

2 (Pause.)

3 CHAIRMAN MELIUS: We just added  
4 this time to the question period.

5 MR. RUTHERFORD: That was my  
6 method of cutting on time. All right, thank  
7 you, Dr. Melius. I'm going to talk about our  
8 status of upcoming SEC petitions.

9 We routinely do this presentation  
10 at the Board Meetings to give the Board some  
11 information on the petitions that are in the  
12 evaluation phase and upcoming 83.14s that we  
13 have.

14 The Board uses this information to  
15 prepare for upcoming Work Group Meetings and  
16 as well as Advisory Board Meetings.

17 As of May 9th, and this has  
18 changed a little bit. We had 186 petitions.  
19 We have one petition in the qualification  
20 process, 113 petitions have qualified for  
21 evaluation. And of those 113, five  
22 evaluations are in progress.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           And that number is a little less  
2           and you'll see why. NIOSH Evaluation, we've  
3           completed 108, and we have 13 evaluations with  
4           the Advisory Board.

5           And 72 petitions that didn't  
6           qualify. Again, as a, now this is as of May  
7           2nd, we have Hanford, this, it says these are  
8           petitions that are currently in the evaluation  
9           process.

10           However, Hanford is complete now.  
11           At the time of preparing for the  
12           presentation, Hanford was not complete. Dr.  
13           Glover will be presenting that later today and  
14           will give much more information than I'm  
15           prepared to.

16           Sandia National Lab, again this  
17           evaluation was not complete when I prepared  
18           the presentation, it is now complete. And Dr.  
19           Glover will be presenting that one shortly  
20           after my presentation.

21           Clinton Engineering Works, this  
22           one has, was delayed a little while. During

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 our evaluation, we uncovered some information  
2 that went to the facility designation  
3 question.

4 We sent that information to the  
5 Department of Labor, and we are waiting for  
6 them to come back with a finding on that  
7 review.

8 We anticipate having that very  
9 shortly and we will, we do plan on presenting  
10 Clinton Engineering Works at the August Board  
11 Meeting.

12 W.R. Grace, and this one is in  
13 Curtis Bay, Maryland. This was received on  
14 December 21st of last year and we are almost  
15 complete with the evaluation on W.R. Grace.

16 And we anticipate concluding it in  
17 early June or mid-June, actually. And we will  
18 present that Evaluation Report at the August  
19 Board Meeting.

20 The Ames Laboratory and Y-12 were  
21 both 83.14s. These came about as a result of  
22 our review of SEC Class Definitions.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We had identified some claims that  
2 we felt probably should have fit into the  
3 existing Class Definitions and recognized that  
4 the Class Definitions were difficult to  
5 administer.

6           These were Class Definitions that  
7 were defined fairly early in the, after  
8 promulgating the rule in 2004. And so these  
9 were pretty early Class Definitions.

10           Prior to the involvement that  
11 we've had with the Department of Labor. We  
12 anticipate completing those 83.14s in July and  
13 early August, and presenting those at the  
14 August Board Meeting.

15           In addition, we were also going to  
16 present the second part of our Vitro  
17 Manufacturing evaluation. We had held up the  
18 post-1960 period on that one, because we were  
19 waiting determination from General Counsel, on  
20 whether Port Hope material would be covered  
21 exposure or not. We have a finding from  
22 General Counsel on that, and we're moving

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 forward to completing that second part of the  
2 evaluation.

3 And we will present that one at  
4 the August meeting. Additionally, Grand  
5 Junction Operations Office, we, if you  
6 remember, we pulled back on the post-1975  
7 period evaluation, because we uncovered  
8 information prior to our presentation, I  
9 believe, at the Santa Fe Meeting.

10 And we are working towards  
11 completing that post-1975 Revision to the  
12 Evaluation. And we anticipate presenting  
13 that, as well, at the meeting.

14 Also, Hangar 481, which is another  
15 one that's with the Advisory Board, we're  
16 waiting for, we had sent a number of questions  
17 to the Office of Secure Transport, and we  
18 have, they have responded to those questions.

19 However, their responses are under  
20 review at this time. And we do anticipate  
21 having those back very shortly. And that  
22 information provided to the Board, sometime, I

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 would suspect, in late June.

2 Which should allow the Advisory  
3 Board to move forward with Hangar 481, as  
4 well.

5 And then I know Dr. Melius will  
6 speak later on General Electric. We are  
7 working a couple of the issues that the SEC  
8 Work Group identified.

9 And we anticipate having answers  
10 for that Work Group within the next couple of  
11 weeks. And that's pretty much it. So, I will  
12 say, just in summary, the ones that we will  
13 present, we anticipate presenting at the  
14 August meeting, are Vitro Manufacturing, Grand  
15 Junction Operations Office.

16 We should, hopefully we'll be  
17 ready for Hangar 481 to move forward. And  
18 then we'll present W.R. Grace, Ames and Y-12  
19 83.14s. Okay, questions.

20 CHAIRMAN MELIUS: Questions for La  
21 Von? You know, I would just comment that if,  
22 depending on how some of the other older sites

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 work out, you know, we are, where we stand  
2 with Savannah River, Fernald.

3 We are either going to have a  
4 very, have to have an extended meeting in  
5 August or we're going to have to defer some of  
6 these, or move some of them forward.

7 In our discussions on GE and we'll  
8 talk a little bit more about this later. But,  
9 in detail, we did say that we may try to, if  
10 it's possible, resolve that and do that on the  
11 July conference call.

12 And I'm afraid, what I'm concerned  
13 about is that with some of these 83.14s, which  
14 are easier to do on, by conference call. We  
15 have Ames and Y-12 here, for example, coming  
16 up that I don't think will be ready for the  
17 conference call.

18 MR. RUTHERFORD: We may have Ames  
19 ready in time.

20 CHAIRMAN MELIUS: Okay, I think it  
21 may, since these are Class Definition changes,  
22 they should be fairly straightforward.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           So, if possible, we'd like to get  
2 them on the July conference call. And I just  
3 want to alert people and we'll just sort of  
4 see. It's hard to sort of figure out what's  
5 going to be ready, when, on some of these  
6 other older sites.

7           But I think they should have some  
8 precedent. And since people waited so long  
9 and do that, and we just may not have time to  
10 get through everything.

11           But, to the extent we could move  
12 it up, or move some of these, if they're more  
13 straightforward to the follow up conference  
14 call after the August meeting.

15           So that was sort of my thinking,  
16 and Ted and I have talked a little bit about  
17 this and I just wanted to mention it to the  
18 other Board Members.

19           MR. RUTHERFORD: I will add, I can  
20 check on Y-12 as well. I mean I generally  
21 know we're pretty close on that one. And  
22 there's no, I will throw up, you know, the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Curtis Bay, Maryland one is --

2 CHAIRMAN MELIUS: Please don't  
3 throw up.

4 (Laughter.)

5 MR. RUTHERFORD: The Curtis Bay,  
6 Maryland, I honestly feel it's fairly  
7 straightforward. And it's a couple year  
8 period and I think that evaluation is very  
9 close to being complete.

10 I can give the, Dr. Melius and Ted  
11 an update, by email, shortly after I get back,  
12 exactly when those, you know, maybe we can  
13 move those forward.

14 CHAIRMAN MELIUS: Because we don't  
15 want to delay and some of these may not take  
16 long, but some of them are going to involve,  
17 at least some discussion, in the limited time.

18 And so then I'm afraid if we do  
19 some of the older, larger sites, that's going  
20 to involve, fairly, we're going to have to  
21 leave a significant amount of time for  
22 discussion on those.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   They're not going to be  
2 straightforward Board deliberations on that.  
3 Stu?

4                   MR. HINNEFELD: In the interest of  
5 waiting for Savannah River or Sandia, I want  
6 to make sure either I have the correct  
7 understanding or we didn't leave a missed  
8 impression about Hangar 481, response from  
9 Office of Secure Transport.

10                   You said they had responded. Now,  
11 in fact, they have drafted a response.

12                   MR. RUTHERFORD: That's what I  
13 said. I said they responded, we did not  
14 receive it until --

15                   MR. HINNEFELD: Well, you didn't  
16 say we didn't receive it.

17                   MR. RUTHERFORD: I said --

18                   MR. HINNEFELD: You said they had  
19 responded and it was under review. That would  
20 imply that we got it, we sent it to DOE for  
21 review.

22                   We don't have it yet. They are

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 getting it cleared through their Security  
2 Reviewers. We have not recieved it yet. I  
3 just want to clear up the misunderstanding on  
4 my part.

5 CHAIRMAN MELIUS: Thanks for the  
6 clarification. Any, yes, Josie.

7 MEMBER BEACH: You mentioned on  
8 Grand Junction, it wasn't on your report.

9 MR. RUTHERFORD: Right.

10 MEMBER BEACH: You're just going  
11 to report on those later years?

12 MR. RUTHERFORD: Yes, we're going  
13 to report on the post-1975 years.

14 MEMBER BEACH: Thank you.

15 CHAIRMAN MELIUS: Is that residual  
16 period?

17 MR. RUTHERFORD: No, actually it's  
18 a DOE facility and so it's not --

19 CHAIRMAN MELIUS: Okay, so it's  
20 not --

21 MR. RUTHERFORD: It's an  
22 operational period. It has a, there was a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 number of questions that were brought up late.

2 We had actually found a document, just after  
3 we issued the Evaluation Report, that kind of  
4 gave us an indication that there may have been  
5 thorium used in the post-1975 period that  
6 wasn't previously identified.

7 So that's why we pulled the  
8 Evaluation for the post-`75 period and back.

9 CHAIRMAN MELIUS: Okay, okay,  
10 good. Wanda?

11 MEMBER MUNN: Just in response to  
12 your comment, I wanted to make sure that all  
13 of the Board understood the Tri-Cities is very  
14 hospitable.

15 We would have no objection to your  
16 extending your time there, as our needs would  
17 require us to do.

18 CHAIRMAN MELIUS: Thank you. I  
19 would report at this time, you know, a  
20 Conflict of Interest form for the Tri-Cities  
21 Chamber of Commerce?

22 (Laughter.)

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER MUNN:       I'll speak with  
2 Counsel about that.

3                   MEMBER ROESSLER:     I think I'm  
4 really expanding on what Wanda was trying to  
5 say. But I think we, with the full agenda, we  
6 should plan on going for a full day on the  
7 third day.

8                   CHAIRMAN MELIUS:    That may, that  
9 was, I think maybe and I think we've done that  
10 before. Given the airline schedule also for  
11 those of us from the east coast, a full three  
12 days may be more practical there, too.

13                   It's a little tricky to get out  
14 and get back to the east coast, yes, do that.

15                   MEMBER BEACH:    Plan early.

16                   CHAIRMAN MELIUS:    We will try to,  
17 do it this way. We will work with, Ted and I  
18 will work with Stu and LaVon and DCAS, trying  
19 to figure out the schedule and what's going to  
20 be practical to do.

21                   And we will let you know by email,  
22 as we pin that down and so forth, so that you

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 can plan accordingly, because I think it will  
2 be, airline scheduling is going to be an  
3 issue.

4 It's a general issue anyway. I  
5 mean, even for this meeting. Any other Board  
6 Members with questions, yes, Josie?

7 MEMBER BEACH: This isn't for you,  
8 Brad texted me and he wanted you to know that  
9 he was online and had a Pantex report for you,  
10 just letting you know.

11 CHAIRMAN MELIUS: Welcome, Brad,  
12 we apologize for not noting you earlier.

13 MEMBER CLAWSON: I thought you  
14 were just ignoring me when Dr. Ziemer chimed  
15 in and said he was here and you never  
16 acknowledged me, but I understand.

17 (Laughter.)

18 MR. KATZ: Brad, we never heard  
19 you, but sorry.

20 MEMBER CLAWSON: Oh, I know that.  
21 That's why I sent Josie, because when you went  
22 into the Pantex, I was trying to talk, so I

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1       figured you couldn't hear me.

2                   CHAIRMAN MELIUS:   Anything to add.

3       If you heard that, anything to add beyond  
4       what Joe and we have Greg Lewis. We had DOE  
5       reporting on your behalf.

6                   MEMBER CLAWSON:    I've been here  
7       from the very beginning. There was nothing to  
8       add, they covered all the meetings we've got  
9       coming up and everything else. I just wanted  
10      to try to figure out how come you couldn't  
11      hear me.

12                   (Laughter.)

13                   CHAIRMAN MELIUS:   Thank you. Any  
14      other missing Board Members to report? Okay,  
15      since it's almost 9:15, and I think we've  
16      exhausted our questions for LaVon, but we may  
17      call him back, if you have others.

18                   Why don't we take a 15 minute  
19      break and be back in here 9:30 sharp. We will  
20      do Sandia then.

21                   (Whereupon,     the     above-entitled  
22      proceeding went off the record at 9:15 a.m.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 and came back on at 9:32 a.m.)

2 CHAIRMAN MELIUS: If we could get  
3 ready to reconvene now. We've got a  
4 petitioner that's going to be on the line.  
5 Okay, Ted, do you want to?

6 MR. KATZ: Just for the record,  
7 Mr. Schofield has recused himself from this  
8 session.

9 CHAIRMAN MELIUS: And, for the  
10 record, we have an unconfirmed report that  
11 Mark Griffon is on the way in from the  
12 airport. We track everybody now.

13 No, he emailed me, so, he should  
14 be here, we'll be able to do Savannah River  
15 on, as scheduled. First time now we're back  
16 is for the Sandia National Laboratories and  
17 Sam Glover is going to present and I believe  
18 the petitioner is alerted and may very well  
19 be on the line.

20 And after Sam's presentation,  
21 after the Board Members have had a chance to  
22 ask questions, we'll ask for any comments from

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 the petitioners. So, Sam, go ahead.

2 DR. GLOVER: Ted, do you need to  
3 verify that they're on the line?

4 MR. KATZ: I mean it's time, I  
5 don't think we do, thanks.

6 DR. GLOVER: Thank you, Dr.  
7 Melius, Members of the Board. I'd like to  
8 present Sandia National Laboratories Exposure  
9 Cohort Petition Report.

10 I would first like to start off by  
11 thanking members of my team. Tim Adler and  
12 his folks did a really good job, they really  
13 worked hard with me on this.

14 I'd like to also thank Scott  
15 Stafford and the DOE folks at Sandia. They  
16 really have worked hard to get us access to  
17 the data and people.

18 And, of course, Greg Lewis and the  
19 DOE, you'll see that they're also helping us  
20 do a lot of work, ongoing, even after this  
21 petition report.

22 So petition overview, the petition

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 was received on January 19th, 2010. The  
2 petitioner proposed the following Class  
3 Definition.

4 All employees who've worked within  
5 the Sandia National Laboratory Reactor  
6 Division from January 1, 1957, through  
7 December 31st, 1962. The petition qualified  
8 for evaluation on April 13th, 2010. The  
9 petition basis was radiation monitoring  
10 records from members of the proposed Class  
11 have been lost, falsified or destroyed.

12 Monitoring data retrieval problems  
13 incurred by NIOSH while processing individual  
14 claims and performance site data capture, were  
15 in support of this petition basis.

16 NIOSH evaluated the following  
17 Class. All employees who worked at Sandia  
18 National Laboratories in Albuquerque, New  
19 Mexico, from January 1st, 1949, through  
20 December 31st, 1962.

21 You can see we backed it up beyond  
22 the 1957, which the petitioner had asked for.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 And I would also say that NIOSH will address  
2 the period covering 1963 through the early  
3 1990s in a separate report.

4 Sources of available information  
5 are those that are typically used by us. The  
6 Technical Information Bulletins, the TIBs. We  
7 interviewed many employees of Sandia. We  
8 certainly looked at existing Claimant files,  
9 documentation provided by the petitioner.

10 We have over 2,400 documents that  
11 have been obtained from Sandia. We had 12  
12 data capture visits to Sandia. We had data  
13 capture related to Sandia, across the DOE  
14 complex.

15 We certainly looked at the OSTI  
16 databases as well as Internet resources. Just  
17 to give you a feel for the dose  
18 reconstructions that have been done. There  
19 have been 346 cases submitted to NIOSH.

20 Claims with employment during the  
21 period evaluated, there's 193. Dose  
22 reconstruction completed for claims, 154.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Claims containing internal dosimetry is 11.  
2 Claims containing external dosimetry is 88.

3 A little bit of background on  
4 Sandia. In 1945, the Z-Division from Los  
5 Alamos, moved from, moved down to what was to  
6 become the Sandia National Laboratory in  
7 Albuquerque. So, in, the covered period for  
8 Sandia National Lab, was established by the  
9 Department of Labor in 1949.

10 So we've got a little four year  
11 gap. We have a letter to them to address this  
12 early four year period, but in 1949, is the  
13 beginning of our, the covered exposure period  
14 for Sandia National Laboratories.

15 Its early occupations were weapons  
16 assembly, weapons ordnance engineering and  
17 production coordination amongst various atomic  
18 energy commissioned facilities, such as  
19 Clarksville, Medina and Pantex.

20 In the early 1950s, they expanded  
21 their activities to support fuel testing and  
22 atmospheric tests. They further expanded its

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 capabilities in the late 1950s when testing  
2 moratoriums were set in place, providing  
3 accelerators and reactors to test weapons  
4 components.

5 Sandia is now divided into five  
6 technical areas. Technical Area 1 nominally  
7 has electron and ion beam accelerators. They  
8 also have a Toxic Metals Machine Shop.

9 TA-II was weapons components  
10 assembly and waste handling and barrel. TA-  
11 III, Radioactive Mixed Waste Landfills. TA-  
12 IV, Neutron Generator Test Equipment. And TA-  
13 V includes Reactors and Hot Cell Facilities.

14 This is a map. You can see that  
15 the colored areas are only a small part of  
16 this large facility that they actually are a  
17 part of.

18 So when you go to Sandia, you're  
19 actually at a large Air Force Base, so you're  
20 mixed into an unusual atmosphere for a DOE  
21 facility.

22 Potential external radiological

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 exposure during the Class, are the full gamut.

2 We have photon exposures related to weapons  
3 assembly.

4 Generators, accelerators, materials  
5 returned from weapons testings. So they would  
6 bring the materials back to the site. You had  
7 beta exposures from activated components.

8 Materials returned from weapons  
9 testing and air filters from cloud sampling.  
10 Neutron, the neutrons, we have weapons  
11 assembly, accelerators, reactors and neutron  
12 sources.

13 And I will also say that Sandia  
14 National Lab's dosimetry system did not  
15 measure neutrons until 1958. Internal  
16 radiological exposures also cover a broad  
17 gamut.

18 They include plutonium, tritium,  
19 uranium, americium, fission and activation  
20 products and other radionuclides which we've  
21 seen in the air sampling data, including  
22 manganese-54, zinc-65, sodium-22, cobalt-57,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 thorium, polonium-210, radium-226, and carbon-  
2 14.

3           So this has a bit of a  
4 Brookhavenish feel. The Health Physics were  
5 the responsibility of the Industrial Hygiene  
6 Division, prior to 1957. At which point  
7 Health Physics Section was formed. NIOSH  
8 located minimal documentation regarding the  
9 practices and requirements during the  
10 evaluation period.

11           Monitoring requirements were  
12 developed based on the judgement of  
13 departments, divisions and supervisors.

14           Interviews indicated that coverage  
15 was temporal and ad hoc in nature. If they  
16 felt they needed coverage, they provided  
17 coverage.

18           Availability of monitoring data is  
19 a significant concern. November 2009, NIOSH  
20 notified DOE the case responses were  
21 incomplete, particularly as related to  
22 internal dosimetry.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   That basically we had found data,  
2                   during our data captures, which showed that we  
3                   had more data than what was being provided.

4                   DOE and Sandia Laboratories have  
5                   implemented a massive records indexing effort,  
6                   which they feel will fix the issues.  
7                   Approximately 1.1 million records. Scanning  
8                   is complete, but I don't believe the QC has  
9                   been completely validated.

10                   Indexing is approximately 40  
11                   percent complete, based on my last report on  
12                   this. And they expect still it will take six  
13                   to nine months to complete this.

14                   In January of 2010, we re-  
15                   requested the records for all the Sandia cases  
16                   that had basically not been paid, had not been  
17                   compensated, which we did, actually.

18                   So we have a request to DOE to get  
19                   all the data for those cases. Unlike many DOE  
20                   facilities, Sandia National Laboratory did not  
21                   report or at least if they did report it, we  
22                   haven't found the reports of how many bioassay

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 samples they did.

2 So we don't know what the target  
3 is. Hanford monthly reports how many urine  
4 samples, how many fecal samples, ad nauseam.

5 You know exactly what the number  
6 is, should be. We have no idea what the  
7 target number is. Based on interviews it's  
8 thought to be small.

9 I've also obtained copies of some  
10 bioassay records, part of it is site data  
11 capture and claimant data requests. The  
12 number of samples by year are provided in the  
13 following table.

14 You see that in the early years we  
15 have nothing. Beginning in '55, we start  
16 seeing some tritium data, some early plutonium  
17 data.

18 But it is pretty spotty. Not  
19 enough to create coworker data sets. External  
20 dosimetry results are centralized from the  
21 beginning. So, personnel data requests seem  
22 fairly complete.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We also have the Atomic Energy  
2 Commission Monitoring Reports available during  
3 this time frame. So we have a ballpark idea  
4 of what fraction of the employees were  
5 monitored.

6           Documentation of pre-1950s  
7 external dosimetry program has not been  
8 obtained by NIOSH. The post-1950  
9 documentation, in the case of all workers in  
10 radiation areas were to be badged.

11           This just gives you a feel for the  
12 total employees, certainly after 1958, what  
13 the total number of employees would be and the  
14 total of number of employees not monitored  
15 would be.

16           And also the doses incurred. In  
17 the '49 to '57 time frame, they didn't track  
18 that as part of these records. They changed  
19 that report in 1958.

20           You can see, even from '58 on, a  
21 larger portion of the workers were not  
22 monitored.           Feasability of dose

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 reconstruction. NIOSH determined that  
2 monitoring data, process information,  
3 monitoring program information, are  
4 insufficient to support bounding internal  
5 doses for the evaluated Class.

6 There are indications additional  
7 data exists, microfilm, microfiche, but these  
8 data are not readily accessible, based on a  
9 lack of internal monitoring, program  
10 documentation and source term information for  
11 the evaluated period, NIOSH feels it can not  
12 establish a bounding approach, even if the  
13 microfilm/microfiche data become available.

14 NIOSH concludes it cannot bound  
15 internal doses for the period of January 1,  
16 1949, through December 31, 1962, but will  
17 continue to assess post-1962 dose  
18 reconstruction feasibility in a subsequent  
19 Evaluation Report.

20 Regarding non-SEC claims, although  
21 NIOSH found it is not possible to completely  
22 reconstruct internal radiation doses for the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 proposed Class, NIOSH intends to use any  
2 internal and external monitoring data that may  
3 become available for an individual claim that  
4 can be interpreted using existing NIOSH dose  
5 reconstructing processes or procedures.

6 NIOSH recommended Class, all  
7 employees of the Department of Energy, its  
8 predecessor agencies, its Contractors and  
9 Subcontractors who worked in any area of Sandia  
10 National Laboratories in Albuquerque, New  
11 Mexico, from January 1, 1949, through December  
12 31st, 1962, for a number of work days  
13 aggregating at least 250 work days.

14 Occurring either solely under this  
15 employment or a combination with work days  
16 within the parameters established for one or  
17 more other classes of employees in the Special  
18 Exposure Cohort.

19 And our summary of recommendations  
20 is that internal dosimetry is not feasible.  
21 That we believe that the external dosimetry  
22 records can be reconstructed, including

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 medical X-ray. Thank you very much.

2 CHAIRMAN MELIUS: Thank you, Sam.

3 Questions for Sam? Yes, Bill.

4 MEMBER FIELD: Sam, I was just  
5 wondering, how did the periods, were these the  
6 periods that were requested by the petitioner?

7 Because I'm looking at '62. Why '62, and not  
8 '63, or '64?

9 CHAIRMAN MELIUS: That was going to  
10 be my question, too.

11 DR. GLOVER: In order to --  
12 through '62, is what he had asked for. I'd be  
13 remiss in saying Sandia was a 83.14, possible,  
14 we were evaluating them in an 83.14, when this  
15 came in.

16 They asked through '62, in order  
17 to get this done in a timely fashion. We  
18 wanted to get this to the petitioner, and not  
19 have them wait any longer.

20 Because of the ongoing data  
21 capture efforts by DOE, trying to fix this,  
22 we've seen the 180 days. And so we really

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 felt this time was necessary to get this  
2 report done.

3 CHAIRMAN MELIUS: So, essentially,  
4 1962, is sort of an arbitrary designation.

5 DR. GLOVER: Only that's where he  
6 stopped, yes.

7 CHAIRMAN MELIUS: Okay, fine,  
8 that's helpful. Bob?

9 MEMBER PRESLEY: Sam, do we know  
10 when they transferred the teardown operations  
11 to either Medina or Pantex? Do we have that  
12 date when they transferred that stuff? When  
13 they transferred those operations?

14 DR. GLOVER: The assembly, the  
15 actual weapons assembly type work?

16 MEMBER PRESLEY: Yes,  
17 assembly/disassembly.

18 DR. GLOVER: It was around  
19 '57/'58, is when they stopped doing that,  
20 according to our documentation.

21 MEMBER PRESLEY: Okay, okay.

22 MEMBER ZIEMER: Dr. Melius?

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:     Yes, Paul, go  
2 ahead.

3                   MEMBER ZIEMER:     LaVon, can you  
4 clarify the neutron exposure that you show  
5 reconstruction feasible, but I thought you  
6 indicated that you have no neutron data prior  
7 to '58 maybe.

8                   Are you just saying that where you  
9 have neutrons you will use it if there's a  
10 person not eligible for the SEC?

11                  DR. GLOVER:     Basically, we do not  
12 have neutron data before 1958, as far as badge  
13 information. In the TBD right now, there is a  
14 back extrapolation of the N/P ratio. We have  
15 data that is contemporaneous to other  
16 facilities who would have done weapons  
17 handling.

18                  And we would propose to use N/P  
19 ratio-type data to do that.

20                  MEMBER ZIEMER:     Okay, thank you.

21                  CHAIRMAN MELIUS:     Josie, then  
22 Wanda.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER BEACH: I have a question,  
2 Sam, on the external monitoring for the period  
3 of '49, to '57. It doesn't look like you have  
4 a whole lot of data, and I was wondering if  
5 you could go in to a little more detail of  
6 that time period?

7                   DR. GLOVER: Again, it was, it's  
8 not well documented. They chose to monitor  
9 who they monitored. And so we don't have a  
10 great breadth of information.

11                   We are going to use the data that  
12 is available to us, to do dose reconstruction  
13 on the non-SEC cancers as best we can.

14                   MEMBER BEACH: You're going to the  
15 data from that time period or for a later time  
16 period back to that time period?

17                   DR. GLOVER: We would use their  
18 data. The activity has significantly changed  
19 the function of time. You've got weapons  
20 handling early and then it goes to, it's an  
21 evolving complex.

22                   It would be very hard to back

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 extrapolate.

2 MEMBER BEACH: Okay, the other  
3 question I had was on incidents. I noticed  
4 that in the ER Report, there was only one in  
5 the Site Profile actually had a couple of  
6 others listed.

7 Where are those documented or  
8 where, I guess I was wondering why there was a  
9 discrepancy between the two?

10 DR. GLOVER: I'd have to go back  
11 and double check. I recall the one,  
12 particular one with an accelerator, but I'd  
13 have to look. So, I apologize, I just don't  
14 recall.

15 MEMBER BEACH: No, that's fine,  
16 thanks.

17 CHAIRMAN MELIUS: Wanda, then  
18 Henry.

19 MEMBER MUNN: Just curious about  
20 the microfiche data that you mentioned. Do we  
21 know what's on that data? Are you likely to  
22 be able to find some internal exposures that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 you don't have now?

2 As you began to go through that  
3 material, do you think it's even there?

4 DR. GLOVER: We have seen  
5 indications that there is some internal  
6 dosimetry data in there. We believe, based on  
7 all the discussions we've had with the staff,  
8 and we've had some great cooperation.

9 Again, we had the guy who started  
10 in the early years, and we talked to them.  
11 There's just not a lot of bioassay. Even if  
12 we had everything.

13 We hope that those microfiche,  
14 there were several times where they started  
15 doing all this microfilm, and then they went  
16 back, is our understanding, and made it  
17 complete. And so we're hoping that this will  
18 allow the DOE to provide complete responses.

19 At this time we're not, you know,  
20 we don't know the full extent, if everything  
21 is there.

22 MEMBER MUNN: And you don't have a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 real feel for how long it's going to take for  
2 them to get through that and get it to you?

3 DR. GLOVER: I could defer to  
4 Greg, if you'd like. I understand it's going  
5 to be six to nine months. Budgeting always,  
6 you know, this is not a cheap process to get  
7 all that in.

8 MEMBER MUNN: I understand, yes,  
9 thanks.

10 DR. GLOVER: They are committed to  
11 helping us, though.

12 CHAIRMAN MELIUS: Henry.

13 MEMBER ANDERSON: I was just  
14 wondering, in your one slide, you indicated  
15 that 154 have been, dose reconstructions  
16 completed for people who were employed during  
17 the period.

18 How were those reconstructions  
19 done for the time period?

20 DR. GLOVER: As best as we could.

21 MEMBER ANDERSON: Yes, okay.

22 CHAIRMAN MELIUS: Can I just, a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 quick follow up on that. How many of those  
2 were with PoCs over 50?

3 DR. GLOVER: I did not check that  
4 statistic, I apologize.

5 CHAIRMAN MELIUS: For future  
6 reference, that's sometimes helpful when we're  
7 dealing with these, that information. Just to  
8 give us a sense of what has gone on at the  
9 site and so forth.

10 So, Stu, if you could make a note  
11 of that, and where it's feasible to get the  
12 information and so forth.

13 MR. HINNEFELD: I would just offer  
14 on that question about, you know, how did you  
15 do 150, I think a number of those were done  
16 before we actually recognized that Sandia had  
17 additional data that we weren't getting, on  
18 their individual exposures.

19 I mean that's a fairly recent, not  
20 in the last few weeks, but in the ten years,  
21 that's a fairly recent discovery on our part.

22 CHAIRMAN MELIUS: Thanks, Stu.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER   PRESLEY:           A    little  
2   information on microfiche and microfilm.   We  
3   didn't start microfiche until late '60s.   And  
4   one of the problems that we're having and I  
5   think you all are probably having, and I don't  
6   know whether the Board knows it or not.

7                   We're finding microfiche, but we  
8   don't have anything to read them on.   A lot of  
9   the microfiche are classified and the design  
10   labs and places like that, have got rid of all  
11   of their readers.

12                  And right now we're having a  
13   problem finding somebody with a classified  
14   reader to read the silly things.   So, that may  
15   be one of the problems that they're running  
16   into, that I'm aware of.

17                  And, the other thing is, are we,  
18   when are we going to be ready for, to vote on  
19   this petition?

20                  CHAIRMAN MELIUS: Well, when we're  
21   done discussing and hearing from the  
22   petitioner.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER PRESLEY:   Holler at me.

2                   CHAIRMAN   MELIUS:           Greg,    can  
3   someone   explain   to   me   what   a   classified  
4   reader?   I   know   what   a   microfiche   reader   is.  
5   I   got   back.       But   I   don't   know   what   a  
6   classified   one   is.

7                   DR. GLOVER:   They are actually in  
8   classified   space   and   they   have,   so   they  
9   actually   have   to   be   able   to   be   cleaned   and  
10   wiped,   and   sometimes   then   can't   print.

11                  CHAIRMAN MELIUS:   Okay, okay --

12                  DR. GLOVER:   Sandia actually has  
13   one.

14                  CHAIRMAN MELIUS:   I thought like a  
15   special   lens   or   something.   I   just   was   trying  
16   to,   maybe   I'm   not   supposed   to   know   that.

17                  MR. LEWIS:   And this is Greg.  
18   Just   to   declare,   I   mean   Sam   kind   of   clarified  
19   already.       But   they   do   have   a   classified  
20   reader,   that's   not   the   issue   there.

21                  The issue there is the time it's  
22   taken   to   scan   and   get   this   into   an   electronic

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 format. We've had to actually hand-key  
2 everything. It's taken much longer than  
3 expected, because it's hard to read, it's  
4 handwritten data.

5 Some of it we're hand-keying the  
6 best interpretation we have but we're not sure  
7 that it's correct. You know, our people are  
8 just trying to interpret the handwriting and  
9 the faded information as best they can.

10 And the QC process, as you can  
11 imagine, is a little bit difficult there. So  
12 that's what's taken much longer than expected.

13 CHAIRMAN MELIUS: We understand, I  
14 think we all appreciate the effort that DOE is  
15 making here.

16 MEMBER BEACH: The other question  
17 I have, Sam, is the number of employees and  
18 the number that are monitored, are you able to  
19 put these employees in the locations readily?

20 DR. GLOVER: We do not feel we can  
21 put people in places, based on their, really  
22 they have some phone books or some logs, it

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 lists where people had an office.

2 But we don't believe that we can  
3 put people in places.

4 MEMBER BEACH: Okay, thanks.

5 CHAIRMAN MELIUS: Any other  
6 questions for Sam from Board Members?

7 Yes, Bill?

8 MEMBER FIELD: I just had a  
9 question about the size, Sam, real quick, size  
10 of the workforce? From the monitoring data it  
11 looks like it was in '58, low were 7,000, and  
12 then it dropped to 6,000, 5,000, 4,000.

13 So it decreased over time, it  
14 looks like from this. Is that realistic to  
15 the size of the workforce, once we're set on  
16 the external dosimetry?

17 DR. GLOVER: I would say in '49,  
18 your workforce is probably a couple of  
19 hundred. Then they began to ramp up. Based  
20 on just my recollection on how the Z Division,  
21 you know, they started as just a small  
22 division that translocated down to Los Alamos,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 then ramped up to fill this new mission. And  
2 then in the early '60s, things would have been  
3 maybe pushed to Pantex, Clarksville, Medina.

4 There were lots of things going on  
5 with, so I would have to double check, but  
6 that's the best information I have regarding  
7 that.

8 MEMBER FIELD: And the people you  
9 do have bio-monitoring data for, does it look  
10 like they were getting a lot of exposure? Or  
11 do you have any ballpark figure on that?

12 DR. GLOVER: We put these, you  
13 know, what bioassay we do have we've graphed  
14 and what is the range, you know, fairly large.  
15 We don't see the magnitude of dosimetry that  
16 you would, per se, say the Hanford Z, or the  
17 Hanford Plutonium Finishing Plants.

18 But, again, it's also very unclear  
19 with the source terms that we have, will we  
20 have captured the breadth that we need to.

21 CHAIRMAN MELIUS: Okay, thanks.  
22 Sam, I just wanted, I thought it was a very

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 good report and I think it clearly explained  
2 things, and I forgot, Dick, okay, Mr. Lemen.  
3 But I do want to compliment NIOSH and whoever  
4 was involved in putting this together.

5 MEMBER LEMEN: Sam, maybe you  
6 covered this and I missed it. But on your  
7 table where you had total number of employees  
8 and number of employees not monitored, that's  
9 the exposure data submitted.

10 How come you don't have the number  
11 of employees from '49 to '57?

12 DR. GLOVER: Those, the DOE Report  
13 changed. So they didn't report that in the  
14 beginning.

15 MEMBER LEMEN: There's no way to  
16 get that number? I mean you said a few  
17 moments ago, the reason I asked it. Because  
18 you said a few moments ago there was about 100  
19 in '49? How do you know that?

20 DR. GLOVER: I just, based on the  
21 Z-Division, what they, you know, reading some  
22 of the quarterly reports. This was extracted

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 from the annual reports of the AEC. And so  
2 that's where this table comes from.

3 I could extrapolate probably from  
4 other reports if we had to.

5 CHAIRMAN MELIUS: Josie, you have  
6 another question? No, okay. I think you can  
7 sit down now, Sam, thanks. Are the  
8 petitioners on the line? No. Paul, did you  
9 have more or anybody?

10 MEMBER ZIEMER: I have no more  
11 questions.

12 CHAIRMAN MELIUS: Okay, now can we  
13 hear from the petitioner, if you'd like to  
14 make comments, you don't need to?

15 DR. FUORTES: I don't know if you  
16 can hear me, I'm on speaker phone.

17 CHAIRMAN MELIUS: Yes, we can.

18 DR. FUORTES: Thank you very much.

19 This is Lars Fuortes from Iowa City and I  
20 want to thank Dr. Glover and the folks at  
21 NIOSH incredibly for this, this result in the  
22 process.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           The dates, the reason for the  
2 limitation of the dates was that this was  
3 based on the oral history and work records  
4 obtained regarding one employee who I'd  
5 interviewed at the Ames Lab, who used to work  
6 at Sandia.

7           So it was an entirely arbitrary  
8 time frame. And I'm very impressed by the  
9 speed with which NIOSH processed this.

10           I would like the Board and NIOSH  
11 to please consider this same process for other  
12 facilities, such as Pantex, for whom you might  
13 have very similar tables indicating a dearth  
14 of exposure data for workers prior to a  
15 particular time frame.

16           NIOSH is in a position, and the  
17 Board, I would think, to set those time frames  
18 which they can agree there's not sufficient  
19 exposure data.

20           But thank you very much for having  
21 done this at Sandia and beg that you look into  
22 this process for the folks at Pantex and other

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 sites as well. Thanks, again.

2 CHAIRMAN MELIUS: Okay, thank you.

3 Okay, Board Members, comments, further  
4 questions, discussion?

5 (No response.)

6 CHAIRMAN MELIUS: Do we hear  
7 suggestion, suggested Board action?

8 MEMBER CLAWSON: Can you hear me?

9 CHAIRMAN MELIUS: Yes, so sorry.  
10 Yes, hi Brad, go ahead.

11 MEMBER CLAWSON: Listen, I just  
12 had one question especially pertaining with  
13 Pantex and Clarksville. Do we have a clear,  
14 is there, can you see a change at Sandia when  
15 these, when everything kind of got centralized  
16 at Pantex?

17 I'm just wondering if Sam could,  
18 has seen any documentation. Because it seems  
19 like that's when Sandia's kind of mission  
20 would have changed a little bit.

21 DR. GLOVER: Sandia continued to  
22 go out to Medina and Clarksville, after they

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 stopped doing it there, eventually. But we  
2 have indicated that we have found microfilm  
3 and microfiche associated with these other  
4 facilities.

5 And have let SC&A and others in  
6 NIOSH who are part of that review. It is very  
7 difficult to work in that area, because we had  
8 to find the right thread buried in these  
9 classified microfilms that are not indexed  
10 well.

11 And so it is a great deal of  
12 effort to find those source terms and activity  
13 reports.

14 MEMBER CLAWSON: Okay, well I just  
15 wanted to see if there was something to clear  
16 it up. I'm concerned about Pantex and Medina  
17 and those.

18 I'm just looking for a common  
19 thread there that maybe we can see a change.  
20 Thank you very much. Your presentation was  
21 very good.

22 CHAIRMAN MELIUS: Back on Sandia,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Wanda.

2 MEMBER MUNN: I'm ready to make a  
3 motion if you are ready to receive it?

4 CHAIRMAN MELIUS: Yes, I am.

5 MEMBER MUNN: I move that we  
6 accept the NIOSH recommendation that all  
7 employees of DOE and its predecessor agencies  
8 or Contractors and Subcontractors who worked  
9 at Sandia National Laboratories in  
10 Albuquerque, New Mexico, from January 1, 1949,  
11 through December 31, 1962, for the number of  
12 aggregated 250 workdays, be accepted as  
13 presented by NIOSH.

14 MEMBER FIELD: Second.

15 CHAIRMAN MELIUS: Bill, no, Bill  
16 was there first. We go by, I've got my  
17 stopwatch.

18 (Laughter.)

19 CHAIRMAN MELIUS: Any further  
20 discussion?

21 (No response.)

22 CHAIRMAN MELIUS: I would like to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 offer, I believe we can do this as a friendly  
2 amendment. Ted, do you want to pass these  
3 around? I think there are enough going this  
4 way.

5 And I will point out, ahead of  
6 time, that we've changed the letter slightly.

7 The standardized letter, and it's going to be  
8 probably changed again. And I'll also point  
9 out that we checked and the actual designation  
10 and I believe the DOE facilities databases,  
11 Sandia National Laboratories.

12 So, it certainly is referred,  
13 commonly, as Sandia National Laboratory, but  
14 whatever. So, for official communication  
15 purposes, we do that.

16 So, a few minor changes in this  
17 letter, as I, I'll read, go through, but  
18 nothing that I think is substantial from  
19 what's in front of you.

20 The Advisory Board on Radiation  
21 Worker Health, the Board, has evaluated  
22 Special Exposure Cohort petition 00162,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 concerning workers at Sandia National  
2 Laboratories in Albuquerque, New Mexico, under  
3 the statutory requirements established by the  
4 Energy Employees Occupational Illness  
5 Compensation Program Act of 2000, EEOICPA, and  
6 incorporated to 42 CFR 83.13.

7 The Board respectfully recommends  
8 that SEC staffs be accorded to all employees  
9 of the Department of Energy, predecessor  
10 agencies and its Contractors and  
11 Subcontractors who worked in any area of  
12 Sandia National Laboratories in Albuquerque,  
13 New Mexico from January 1, 1949, through  
14 December 31, 1962.

15 For a number of work days,  
16 aggregating at least 250 work days occurring  
17 either solely under this employment or in  
18 combination with work days within the  
19 parameters established for one or more other  
20 Classes of employees included in the SEC.

21 This recommendation is based on  
22 the following factors. Individuals working at

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 the Sandia National Laboratories, during the  
2 time period in question, worked on nuclear  
3 weapon production and related operations.

4 The National Institute for  
5 Occupational Safety and Health, NIOSH, review  
6 of available monitoring data, as well as  
7 available process and source term information.

8 Various production activities at the Sandia  
9 National Laboratories, found that NIOSH lacked  
10 adequate information necessary to complete  
11 individual dose reconstructions with  
12 sufficient accuracy for internal radiological  
13 exposures to plutonium, tritium and other  
14 radionuclides during the time period in  
15 question.

16 The Board concurs with this  
17 determination. Three, NIOSH determined that  
18 health may have been in danger for these  
19 Sandia National Laboratories workers during  
20 the time period in question.

21 The Board also concurs with this  
22 determination. Based on these considerations,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 discussions held at the May 24th to 26th,  
2 2011, Board Meeting, held in St. Louis,  
3 Missouri, the Board recommends that the Class  
4 covering all employees of the Department of  
5 Energy, its predecessor agencies, Contractors  
6 and Subcontractors who worked in any area at  
7 Sandia National Laboratories, in Albuquerque,  
8 New Mexico, from January 1st, 1949, through  
9 December 31st, 1962, for a number of work days  
10 aggregating at least 250 work days occurring  
11 either solely under this employment or in  
12 combination with work days within the  
13 parameters established for one or more other  
14 Classes of employees included in the SEC, be  
15 added to the SEC.

16 Enclosed is supporting  
17 documentation from the Board Meeting where  
18 this SEC Class was discussed. This  
19 documentation includes transcripts of the  
20 deliberations, copies of the petition, NIOSH  
21 review thereof, and related materials.

22 The meeting's items aren't

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 available at this time, they will follow  
2 shortly. So will you accept that as a  
3 friendly amendment? Thank you.

4 MEMBER MUNN: Yes.

5 CHAIRMAN MELIUS: Yes. Any  
6 further discussion?

7 (No response.)

8 CHAIRMAN MELIUS: Ted, do the roll  
9 call.

10 MR. KATZ: Dr. Anderson?

11 MEMBER ANDERSON: Yes.

12 MR. KATZ: Ms. Beach?

13 MEMBER BEACH: Yes.

14 MR. KATZ: Mr. Clawson?

15 MEMBER CLAWSON: Yes.

16 MR. KATZ: Dr. Field?

17 MEMBER FIELD: Yes.

18 MR. KATZ: Mr. Gibson is absent.  
19 Mr. Griffon?

20 MEMBER GRIFFON: Yes.

21 MR. KATZ: Dr. Lemen?

22 MEMBER LEMEN: Yes.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 MR. KATZ: Dr. Lockey?

2 MEMBER LOCKEY: Yes.

3 MR. KATZ: Dr. Melius?

4 CHAIRMAN MELIUS: Yes.

5 MR. KATZ: Ms. Munn?

6 MEMBER MUNN: Yes.

7 MR. KATZ: Dr. Poston is absent,  
8 but would also recuse from this, in any event.  
9 Mr. Presley?

10 MEMBER PRESLEY: Yes.

11 MR. KATZ: Dr. Richardson is  
12 absent, I don't have to collect his vote. Dr.  
13 Roessler?

14 MEMBER ROESSLER: Yes.

15 MR. KATZ: Mr. Schofield has  
16 recused, and Dr. Ziemer?

17 MEMBER ZIEMER: Yes.

18 MR. KATZ: So, all in favor, the  
19 motion passes. I'll collect the extra votes.

20 CHAIRMAN MELIUS: Thank you, and  
21 if anybody has, finds any other typos or  
22 changes in the letter, let me know. Pass it

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 back.

2 We'll take care of those. Sam,  
3 good, since you were heading towards the --  
4 yes, well, don't go away.

5 Do we have, I'm trying to figure  
6 out, we need to form a Work Group on Sandia.  
7 We have Site Profile review I believe that  
8 SC&A has done, that we have not set up a Work  
9 Group to review, if my memory is correct.

10 And Josie reminded me. And we  
11 also have this, I think, a second report  
12 coming from NIOSH, if I understood you  
13 correctly?

14 DR. GLOVER: There will be a  
15 second report, yes.

16 CHAIRMAN MELIUS: Do we have an  
17 estimate on the timing on that?

18 DR. GLOVER: It's based on DOE's  
19 response time. We're looking at about a year.

20 CHAIRMAN MELIUS: Okay. So --

21 DR. GLOVER: Although my boss  
22 could change my mind one way or the other, but

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 I believe that's probably right.

2 CHAIRMAN MELIUS: Yes, Josie.

3 MEMBER BEACH: Sam, can you tell  
4 us what years those, that next report is  
5 covering?

6 DR. GLOVER: That would go from  
7 the beginning of, the end of this one, '63,  
8 and about through the early '90s, when CEP  
9 data was the data falsification at CEP.

10 There was an issue where they  
11 falsified data. So we'd be looking about that  
12 time frame.

13 CHAIRMAN MELIUS: What I would  
14 propose as a way going forward, is that we  
15 probably should, it probably is timely at  
16 least to form a Work Group on Sandia.

17 And since we have the Site Profile  
18 review, aren't there going to have to be some,  
19 at least initial review of that Site Profile  
20 and some thought given to how, what issues may  
21 come up in terms of the additional years and  
22 so forth.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           Because I don't think we want to  
2 spend a lot of time on Site Profile issues  
3 that may, sort of get changed by an SEC  
4 evaluation.

5           I suspect some of them may already  
6 have, but at least if we got some initial  
7 review going. Because, again, while we're, I  
8 don't think we should postpone too long  
9 dealing with the Sandia Site Profile.

10           And I think we also, while it's  
11 sort of fresh in our minds, and reviewing it  
12 is probably more appropriate to start work on  
13 that. So, other Board Members have, yes.

14           MEMBER BEACH: I'm wondering if we  
15 could task SC&A to review the Evaluation  
16 Report. I don't think that's been done.

17           CHAIRMAN MELIUS: Well, but, what  
18 parts of the Evaluation Report? Because the,  
19 we've accepted that and I believe that the  
20 doses for which NIOSH can, says that they can,  
21 the external doses, essentially.

22           They say they can construct, and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 those should be covered in the Site Profile.  
2 I think the question is going to be to what  
3 extent the Site Profile and the SC&A review of  
4 that Site Profile, may not reflect some of the  
5 newer information that came up in the SEC  
6 Evaluation.

7 But, I think perhaps a meeting of  
8 the group to, before they do any further  
9 tasking, can sort of review the issues and see  
10 where that is.

11 I think a meeting with NIOSH,  
12 maybe even done by conference call, I don't  
13 know. But could, rather than have a separate  
14 review of the Evaluation Report.

15 Now, it may turn out that the Site  
16 Profile needs to be changed, I don't, Sam, do  
17 you have any thoughts on that? Or you've been  
18 probably busy --

19 DR. GLOVER: I believe there are  
20 revisions that are required to the Site  
21 Profile. And the post-'62, time frame. But I  
22 did want to remind that you guys had tasked

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 SC&A to accompany us on some of these visits.

2 And so some of this, because it is  
3 classified, it's hard to get to these things.

4 So they've been participating with us, so  
5 they are able to stay abreast of what the  
6 current, what we are seeing down there.

7 I do not believe we've created an  
8 issues matrix, and so perhaps that's a good  
9 place to start.

10 CHAIRMAN MELIUS: Exactly. And I  
11 also think that since, remember we had tasked  
12 SC&A to go out to Sandia because the nature of  
13 some of these interviews and difficulties of  
14 trying to do them again, so, repeating them.

15 So there is information there. And  
16 I think it's worth getting at least started.  
17 It may not be on sort of a fast track review,  
18 but it certainly will be helpful to get going.

19 Anybody else have comments? If  
20 not, I think we need a motion to form a Work  
21 Group?

22 MEMBER PRESLEY: So moved.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:   Okay, Bob moved,  
2   seconded by Wanda?

3                   MEMBER MUNN:   Yes.

4                   CHAIRMAN MELIUS:   And to that, all  
5   in favor say aye.

6                   (Chorus of ayes.)

7                   CHAIRMAN MELIUS:   Opposed?

8                   (No response.)

9                   CHAIRMAN MELIUS:   Okay, and you  
10   can let me know, since there are a number of  
11   Board Members who are not here, and give them  
12   a fair opportunity to volunteer.

13                   I will circulate an email asking  
14   for volunteers for this Work Group and then  
15   make the appointment, hopefully between now  
16   and our July meeting, if I can track everybody  
17   down for that.

18                   Okay, we have some time. We have  
19   scheduled the review of Savannah River until  
20   11:00, but, not to put you on the spot, Mark,  
21   but now that we've got you here, we're going  
22   to, yes, we're going to keep it at 11:00.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   However, are you ready? And we  
2 can put this off to this afternoon but I think  
3 we have some other Board work time later. But  
4 there are some Work Group Reports and  
5 Subcommittee Report on the Dose Reconstruction  
6 Committee that we'd like to hear from.

7                   And LANL, I believe, is the other  
8 outstanding Work Group that we haven't heard  
9 from and is not scheduled elsewhere on the  
10 agenda.

11                   I don't know if you want, rather  
12 do those later or, since you're just off the  
13 plane? Yes, okay, we'll do that this  
14 afternoon.

15                   Then, I believe we then will, we  
16 will then take a break until 11:00 and if we  
17 can be in here about five of 11:00 to get  
18 started with Savannah River. Yes?

19                   Yes, well, that's, I think we've  
20 pretty much dealt our Board work time issues  
21 and we're tied down on some of these petitions  
22 in terms of timing.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   So, this, yes, we'll make up for  
2 this in lovely, beautiful Tri-Cities.

3                   MEMBER MUNN: As requested.

4                   (Whereupon, the above-entitled matter  
5   went off the record at  
6   10:12 a.m. and resumed at  
7   11:02 a.m.)

8                   CHAIRMAN MELIUS: I think we're  
9 ready to reconvene the Board Meeting. We will  
10 now discuss the Savannah River SEC petition,  
11 and I believe Tim Taulbee is going to lead  
12 off, and then we'll hear from Mark Griffon,  
13 from the Work Group. So, Tim, go ahead.

14                   DR. TAULBEE: Thank you, Dr.  
15 Melius, Members of the Board. The goal of my  
16 presentation here is to give you an update on  
17 where we are with some of the priority issues  
18 that SC&A and the Work Group have identified.

19                   And first let me go through what  
20 those priority issues are. I've got the seven  
21 of them listed here. Issues 1 and 2 are  
22 thorium-related.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We've got these divided by  
2 different time periods as to whether thorium  
3 metal was worked with or thorium oxide. And  
4 then the exotic radionuclides, the trivalents,  
5 the neptunium mixed fission products, cobalt-  
6 60 and then other exotics.

7           The bulk of this presentation will  
8 be on the first two issues there: the thorium.

9           And my goal here is to try and give you an  
10 overview of the SRS isotope production.

11           As you know, Savannah River was  
12 one of the sites that made materials,  
13 specifically plutonium-239, was their primary  
14 mission.

15           But they also made other isotopes,  
16 as well. Plutonium-238, using neptunium as a  
17 target, but for thorium, what their main goal  
18 was, was uranium-233, that was what they were  
19 trying to produce.

20           And in order to do that, they  
21 would use thorium, in this process. So I'm  
22 going to walk through the different steps of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 the isotope production so that you can see  
2 where thorium was worked with, at the Savannah  
3 River Site, using thorium as the example and  
4 going through this, so that I can identify it  
5 and illustrate it for the Board.

6 The three basic steps are a target  
7 manufacture. You start with a material and  
8 then you put it into a reactor, that would be  
9 target irradiation of 100 areas.

10 It would absorb neutrons and  
11 undergo some nuclear reactions to produce the  
12 material you are interested in. In this case,  
13 uranium-233. But to get the uranium-233 out  
14 of this target material, you have to go  
15 through some chemical separations.

16 And so these are the three main  
17 processes that Savannah River went through  
18 whenever they made any material, plutonium-  
19 239, uranium-233, plutonium-238, et cetera.

20 So you start with the target  
21 manufacturing and the location of where this  
22 was conducted was up here in this corner, that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 you can see up here in the 300 area.

2 It's also called the M area. And  
3 from prior to 1965, to make uranium-233, they  
4 primarily used thorium metal. Post-1965, the  
5 used thorium oxide.

6 And so that's why we've divided  
7 Issue 1 and Issue 2, there separately. The  
8 main operations in target manufacturing is  
9 material canning.

10 And that is to put this material,  
11 this thorium metal into a can, if you will, an  
12 aluminum can and -- before they put it into a  
13 reactor. Now, on-site, they did on-site  
14 canning prior to 1955.

15 They were using a dipping method,  
16 and I'll get into that a little more later.  
17 But the bulk of it, from 1955 to 1964, was  
18 actually using a different method, a hot press  
19 bonded method.

20 And these were actually canned  
21 off-site, at Sylvania. Now, starting in 1964,  
22 again, with thorium oxide, they moved it back

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 on site in order to do that.

2 The main operations within this  
3 area, after the canning, is you would weld the  
4 endcap on, you'd do pressure tests. You'd do  
5 radiography on these end smears before they  
6 would be sent to the reactors for target  
7 irradiation.

8 And here you can see the five  
9 production reactors. Again, M area was way up  
10 here, and now the production reactors are all  
11 kind of in a semi-circle here, about the  
12 center of the site. These canned thorium  
13 slugs would be coming in. The outside jacket  
14 is all aluminum and in the assembly area at  
15 the reactors, these encapsulated thorium slugs  
16 would be loaded into long assemblies to be  
17 lowered into the reactor.

18 So these, about ten inches to 12  
19 inch slugs would be hand put into an assembly.

20 Now, once they're into an assembly, then they  
21 would be sent into the reactor and irradiated  
22 for some specified time period in order to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 make the uranium-233.

2           Following the irradiation, they  
3 would be moved, pulled out of the reactor,  
4 transferred through a channel, into the  
5 disassembly area or the disassembly pool, and  
6 these thorium slugs would be unloaded from the  
7 assembly, and allowed to cool for 30 to 90  
8 days, depending on what the specifications  
9 were.

10           After the irradiation, after the  
11 cooling took place -- the main purpose of  
12 that, by the way, was to allow short-lived  
13 fission products to decay out -- the slugs  
14 would then be sent to chemical separations.  
15 Now prior to 1964, I've got this slide here  
16 because at that point, pre-1964, these slugs  
17 were shipped off-site to Oak Ridge National  
18 Laboratory for the actual chemical separation.

19           It wasn't done at Savannah River.

20           Now some of these slugs would be, a sample  
21 would be taken from them and those samples  
22 would be sent up to the 700 area, into the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 high-level cave areas, for analysis.

2           There is also some non-destructive  
3 testing that would be done there at the  
4 reactors as well, where they do visual  
5 inspections and that type of thing.

6           But prior to 1964, there wasn't  
7 any thorium separations that were going on in  
8 the 200 areas. Post-1964, that changed. This  
9 is when they introduced the thorex process  
10 there in the 200 H Canyon.

11           And the first campaign took place  
12 in 1964, when they did this. And, initially,  
13 thorium was actually treated as a waste  
14 product.

15           So, when they separated it or  
16 dissolved the thorium down, they kept the  
17 mixed fission products with the thorium and  
18 sent it right out to the waste tanks.

19           So there really wasn't any  
20 handling. It went from the canyon directly  
21 into the waste tanks. Now in later campaigns,  
22 they introduced an additional stream to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 recover the thorium.

2                   And so they recovered the thorium  
3 as thorium nitrate and they sent it to  
4 Fernald. So at that point, they started  
5 pumping it into rail cars and then they would  
6 send it up to Fernald.

7                   So within the chemical  
8 separations, again, the product was uranium-  
9 233, that was what they were going after. And  
10 so in this latter time period, after that  
11 first campaign, you had three waste, you had  
12 three product, or three streams of material:  
13 the uranium-233 that went to the B-Line, the  
14 mixed fission products which went out to the  
15 waste tanks, and then the recovered thorium  
16 nitrate which was pumped into rail cars and  
17 sent to Fernald.

18                   So for our evaluation, of these  
19 three steps for the U-233 production, we  
20 originally felt that the main exposures were  
21 in the 300 area. This is where un-  
22 encapsulated material was handled. This is

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 where they would be doing work with the  
2 thorium in a form that could result in  
3 airborne radioactivity and inhalation hazards.

4 In the 100 areas, this is  
5 encapsulated material. And then, in the 200  
6 area, again the material wasn't present until  
7 1964, and after '64, this was a wet process.

8 So of these three different steps,  
9 we felt the 300 area was the largest or of the  
10 greatest concern. So, let me go into a little  
11 more detail about the 300 area at this time.  
12 And this was, again, a thorium canning method.

13 Now prior to 1955, they used a dipping  
14 method, and so what you'd take is a thorium  
15 slug and you put it inside a can, but you  
16 needed to seal the edges of it.

17 And so, in order to do this, they  
18 would dip it in a molten aluminum silica bath  
19 and you can see here in the picture that  
20 that's what workers are doing. They have  
21 tongs that they're dipping them down into the  
22 bath.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           Sometimes the slugs coming from  
2 the rolling mill wouldn't fit inside the cans.

3       So they had to do lathing and other cutting,  
4 that type of thing, in order to get them in  
5 the cans initially.

6           So there was some potential for  
7 exposure in this area, during this process.  
8 Now, in later years, after 1956, they had two  
9 simultaneous canning operations going on. The  
10 dipping method and then the hot press bonded  
11 method which was done by Sylvania. Now, what  
12 turned out was the hot press bonded method was  
13 a better method compared to the dipping. They  
14 had less slug failures. In failures, I mean  
15 when they do the pressure tests in an  
16 autoclave. And so they had a higher  
17 acceptance rating.

18           So, they went solely with the hot  
19 press bonded method, starting in about 1956.  
20 So the slugs would then come from Sylvania,  
21 mostly canned, not completely canned, and  
22 Savannah River would finish them. They would

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 weld the ends on, and then they would do all  
2 the pressure testing for them.

3           So this process was very similar  
4 to uranium canning. Using the dipping method  
5 and the hot press bonded method. And so, what  
6 we had for dose reconstruction was we had a  
7 lot of uranium bioassay data available, and  
8 since the processes were similar, we felt we  
9 could use the uranium bioassay to determine  
10 what a mass intake would be.

11           Recognizing it's a different  
12 material, but if you go back to mass, how much  
13 would be breathed into an individual? We  
14 could determine the mass, and assuming an  
15 equal mass of thorium, calculate the dose out.

16           And so we felt that this was  
17 bounding primarily because of the thorium slug  
18 production. And when you look at the number  
19 of slugs produced of uranium targets versus  
20 the number of thorium targets, you'll see that  
21 the actual thorium fraction in the greatest,  
22 the largest year, was still less than five

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 percent.

2                   So the bulk of their operation was  
3 producing plutonium-239, and the amount of  
4 thorium was actually rather small, when you  
5 think about it on a large scale. Because, you  
6 know, in this case 16,000 slugs sounds like a  
7 lot, but compared to 400,000, we feel that  
8 this pretty similar or a bounding type of  
9 approach.

10                   So we cut that off, though, at  
11 1965, because the whole operation changed.  
12 They were no longer working with metal; they  
13 started working with thorium oxide, which is a  
14 powder. And in order to can that material,  
15 they actually used vibration and compaction.  
16 Totally different than what they were doing  
17 with uranium metal.

18                   So we couldn't use the uranium  
19 bioassay anymore. So we wanted to look at,  
20 was there any other data, any other method to  
21 estimate dose.

22                   And because this was a powder type

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 of operation, Savannah River actually used a  
2 glove box to do this work. And here's a  
3 picture of the thorium glove box that was in  
4 the 300 area. And a worker is standing there.

5 And what you'll see here in the lower right-  
6 hand corner, in this area right here, is some  
7 completed thorium slugs.

8 You'll see them laying there in a  
9 tray, after they've gone through the  
10 compaction and all of the other work  
11 associated with it.

12 Well, on the backside of this  
13 glove box, if you look here at the top. Up  
14 here, this is the ventilation coming out of  
15 the top of the glove box.

16 And this line comes right down  
17 here into this HEPA filtration system. So  
18 right there next to the glove box was the air  
19 recovery unit for the glove box, where they  
20 were pulling the samples, or pulling air  
21 through the glove box.

22 And you also notice there, behind

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 the chain rope, materials coming out of the  
2 glove box were bagged for radiation control.  
3 Now, one of the things that we wanted to look  
4 at was, is there any air sampling data? And  
5 there is for this particular area.

6 And this particular plot that I'm  
7 showing here is that, one of the concerns was  
8 we don't have air sampling data for the  
9 entire time period, from 1964 through 1971.

10 And the reason for this was that  
11 these campaigns were periodic. And here, you  
12 can see on the graph, the bars are when the  
13 campaigns transpired and the individual black  
14 dots are when we have air sample data with --  
15 the magnitude of those samples are.

16 So, one wouldn't expect that there  
17 would be a lot of air sample data when they  
18 weren't doing any work in that particular  
19 area.

20 But, in this case, we have the air  
21 sample data when they were doing this work.  
22 We obtained these air samples, as you saw, and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 we confirmed through interviews with the  
2 Radiological Control Technician, who actually  
3 took them; he's still alive, and we  
4 interviewed him. And this samples were taken  
5 outside the glove box and he considered them  
6 breathing-zone equivalent.

7 Because he put it on a tripod type  
8 of stand and he would position that air  
9 sampler where the workers were working, at  
10 nose height.

11 So, in his opinion, these were  
12 breathing-zone equivalent. So, based upon  
13 this air samples, we felt we could calculate  
14 the doses to the workers, during this thorium-  
15 oxide time period.

16 So, again, our main impression was  
17 that the 300 area was the predominant exposure  
18 potential and we have methods to estimate  
19 those doses.

20 In early interviews with workers  
21 about the thorium operations, we did have  
22 indications that they did some research and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 development work, but all the interviews  
2 indicated this was minor benchtop-type of  
3 levels, nothing significant.

4 SC&A in January of this year, in  
5 one of their findings, was that NIOSH did not  
6 address thorium exposures in other areas.

7 And so, at that time, we committed  
8 that we would go back to the site and look for  
9 thorium exposures in some of these other  
10 areas.

11 Now, what we wanted to go back and  
12 look at, was the material accountability  
13 ledgers or inventories. And this was  
14 conducted after the last Board Meeting. We  
15 did this in March.

16 And what was interesting about  
17 this was from our interviews, the people who  
18 worked with the material said that there was  
19 only small quantities, nothing significant.

20 That's not what the ledger showed  
21 us, when we looked at this in March. It was  
22 rather surprising, to be quite honest, in this

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 case. And two areas popped out and that was  
2 the 700 area and the TNX area.

3 Now, the 700 area was the research  
4 or Savannah River Laboratory. And, as best we  
5 can kind of figure, Savannah River methodology  
6 for starting a new process or improving a  
7 process, was they would start with lab work  
8 and deal with small quantities.

9 And then they would scale it up to  
10 a semi-works plant or pilot plant down at the  
11 TNX facility, before they turned it into full-  
12 scale production in the canyons or up in the  
13 300 area for material canning.

14 So that was their general process,  
15 and what you'll see here on this map is the  
16 700 area is right next to M area, up there at  
17 the top, and the TNX area is down along the  
18 river.

19 So in the Savannah River, or in  
20 the 700 area, we've found lots of memos  
21 discussing benchtop thorium work in the B  
22 wing, Room 131, appears very often.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           And we also have indications of  
2 thorium work in the high level caves. This is  
3 a radiated thorium that actually came,  
4 initially, from Hanford. And then some of  
5 them from the reactor area, they would send  
6 back to 700 area for analysis.

7           But none of these really coincided  
8 with these large quantities we saw in the  
9 ledgers. What we found, in addition, on the  
10 back end of the 773 area, that laboratory, was  
11 a metallurgical research and development  
12 laboratory.

13           And is known to have a capability  
14 of manufacturing full-scale fuel and target  
15 assemblies. So, they had a lab that's best  
16 described as a very large garage in which they  
17 had a 300-ton press and other materials in  
18 there, so that they could do this research and  
19 development.

20           And our current belief is that  
21 most of the thorium work, that's accounting  
22 for these tons of material that we see in the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 ledgers, was conducted here in this  
2 metallurgical laboratory.

3 So, that's one area that has us  
4 concerned, at this point. The other area is  
5 the TNX or the separation semi-works area.

6 And the ledgers indicate  
7 intermittent work, 1954 to 1956, and then '64  
8 to '68. The '54 to '56, was more canning type  
9 of work that they were doing down there.

10 And '64 to '68, was actually  
11 dissolving. And this slide might be different  
12 than what you got in your handouts, and I  
13 apologize for that. In reviewing this  
14 presentation yesterday, I ran into -- this  
15 said irradiated thorium and that's incorrect.

16 This slide is correct.

17 The work involved dissolving  
18 unirradiated thorium. And so these were not,  
19 these are not high-level gamma slugs that they  
20 were handling and which you'd have lots of  
21 shielding to protect you.

22 These were normal uranium slugs

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 that they were dissolving down in preparation  
2 for the separations canyons.

3 CHAIRMAN MELIUS: The time frame  
4 changed also, yes.

5 DR. TAULBEE: Yes, that is  
6 correct, as well. I apologize for that. So  
7 that was, and this is the case where they  
8 would be working from beaker-type of levels  
9 and now moving into tanks and drums on the  
10 order of 50 gallons to 100 gallons type of  
11 operations, in preparation to move to the  
12 canyons.

13 Now, a lot of the early memos  
14 actually mention a thorium separations  
15 building. And especially in the early years,  
16 1953, '54, and '55.

17 What's interesting about that is  
18 they are a little misleading in that they did  
19 build a building to do thorium separations,  
20 but the AEC cancelled it in 1956.

21 So the building was actually  
22 built; it was never put into production. So,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 a great deal of the information we have is  
2 about building this building and it never  
3 handled thorium.

4 But other areas there at the TNX  
5 certainly did during this time frame. So,  
6 kind of an overview, this slide is intended to  
7 try and show you where we feel that dose  
8 reconstruction is feasible and areas where we  
9 have concerns and likely could be a problem.

10 So, to kind of go from the top, or  
11 actually let me walk through, based upon the  
12 process. Again, the 300 area, I showed you  
13 the pre-metal or the metal workings as well as  
14 the thorium oxide time frame.

15 And we feel the entire time period  
16 we have a pretty good method of estimating  
17 dose. Now, in the reactors, that would be  
18 encapsulated material, so there really isn't  
19 a significant or any airborne hazard in that  
20 area.

21 The canyon areas didn't start up  
22 until 1964. Actually, that could have been

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 1965; the first irradiation started in '64,  
2 and there is a delay between irradiation and  
3 separations.

4 And so that area, even though it's  
5 in the canyons, it would be taking some  
6 samples coming out of the processes at  
7 different time periods.

8 And then at the end, the tail end,  
9 they'd be pumping that into the rail cars to  
10 send to Fernald.

11 The 700 area is where they did a  
12 lot of research early on, up until 1956, and  
13 then it appears that, at that time period,  
14 most of the thorium research stopped for a set  
15 time period.

16 It didn't completely shut down  
17 immediately and when it started back up was  
18 really in the '60 to '61 time frame, when they  
19 started working with some of the thorium  
20 oxide, in preparation.

21 The CMX facility listed there --

22 CHAIRMAN MELIUS: Can I interrupt,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 just --

2 DR. TAULBEE: Sure.

3 CHAIRMAN MELIUS: -- I'm a little  
4 confused on the color coding here.

5 DR. TAULBEE: Yes.

6 CHAIRMAN MELIUS: For  
7 unencapsulated thorium, you have three  
8 different colors. Is that degree of exposure  
9 or is that, I mean it's a nice slide but --  
10 (Laughter.)

11 DR. TAULBEE: That is what I'm  
12 trying to convey at this point.

13 CHAIRMAN MELIUS: Okay, so it's  
14 low, medium, high?

15 DR. TAULBEE: Effectively, yes.

16 CHAIRMAN MELIUS: Okay, okay, no  
17 that's very good.

18 DR. TAULBEE: That's what I'm  
19 trying to convey, anyway, I'm sorry. But,  
20 yes, so, during that '57 to 1960 time period  
21 in the 700 lab, because there wasn't much  
22 thorium work going on or research, we consider

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 that to be a low time period.

2 But there would be residual  
3 material around. In the CMX facility, this  
4 was the reactor pilot plant or semi-works, if  
5 you will. And what they would be doing there,  
6 is they would be testing these fuel elements.

7 They'd be heating up the water to see how  
8 they behaved in that encapsulated form within  
9 the reactor. It's not actually running a  
10 critical experiment or critical reaction, but  
11 they would be doing the thermodynamics  
12 associated with the reactor there in the CMX.

13 Right next to it is TNX, which is  
14 the semi-works, and there they would be  
15 working with it in an unencapsulated form.

16 The next one down is the 777M  
17 laboratory or this physics laboratory. And  
18 this one is, was very difficult for me to try  
19 and put into a bin.

20 Because some of the material was,  
21 that they worked with there were bare thorium  
22 slugs, not canned. Now, they didn't

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 physically do anything with them, cutting or  
2 anything like that on them.

3 They were doing reactivity tests.

4 And so they'd be loading them into a critical  
5 pile and determining what the effect on the  
6 other fuel elements surrounding nearby would  
7 be.

8 And so, but they had both bare  
9 thorium slugs and encapsulated. So that was  
10 where they were doing that work.

11 So it's really a low,  
12 unencapsulated hazard, but there was some that  
13 was unencapsulated. And then the kind of  
14 grayed areas there, is when thorium was not  
15 present.

16 So, what you can see is that  
17 you've got a really big mix here at the site.

18 In some areas the exposure is minimal, and  
19 then in other areas, it could be rather large.

20 So our time line, in evaluating  
21 this, is we anticipate submitting to the Board  
22 a revised Evaluation Report addendum or an

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 83.14 for your consideration at the August  
2 meeting.

3 So we're wrapping this up. We  
4 have since the last Board meeting in February,  
5 we've conducted additional interviews within,  
6 more individuals who worked with thorium in  
7 the 1950s.

8 We've identified them from some of  
9 the memos that we found in March. As these  
10 were the people doing the work. And, again,  
11 all of them are, have indicated during the  
12 interviews, that they only worked with small  
13 quantities, in fact, in every single case.

14 The interesting part is that we've  
15 specifically started asking about the metal  
16 laboratory, and we haven't found anybody that  
17 actually worked there. And all the  
18 interviewees have indicated that they really  
19 didn't know much of what was going on in that  
20 particular part of the laboratory.

21 So, from their knowledge, the lab  
22 part, the small individual labs where they'd

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 have benchtop work, it was very small. But the  
2 metallurgical laboratory, very likely had or  
3 all of those large quantities, these tons of  
4 thorium that we cite.

5 Early next month, we're going to  
6 follow one last thread down at Savannah River,  
7 and this is a box that was identified back in  
8 the March time frame, I guess it was April,  
9 I'm sorry.

10 And the line there in italics, A  
11 Pu results Pu controlled thorium log '54 to  
12 '58, is the only indication we have on this  
13 box. It's in the Atlanta Federal Records  
14 Center.

15 The site is pulling it back so we  
16 can look at it. And based upon other boxes of  
17 this type of information, my interpretation is  
18 that the A stands for A area, which would be  
19 the 700 area. Pu results are the plutonium  
20 bioassay for A area, controlled blanks and  
21 spikes. And then the thorium log. This could  
22 be a thorium bioassay log book or air samples.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We just don't know, from this  
2 standpoint. And then the time periods, '54 to  
3 '58, which is that early area there for the  
4 Savannah River laboratory.

5           But we do, like I said, the first  
6 week of June, we will look at this and we will  
7 wrap up all of the thorium work before your  
8 August Board Meeting.

9           So, with that, let me switch now,  
10 gears, and go to the exotic radionuclides. If  
11 you recall, the Savannah River petition is for  
12 construction trades-based.

13           Oh, I'm sorry, I do need to go  
14 back, I apologize for this. On this slide, I  
15 didn't get down to the central shops area.

16           One of the things that's important  
17 to remember, because this is a construction  
18 trades SEC, is that although thorium wasn't  
19 present at the central shops, all of those  
20 construction trades workers down at the  
21 central shops could go to any of these areas.

22           So, a very likely could have gone

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 to the 700 area, if they went to the central  
2 shops, picked up their badge that morning,  
3 they could go to the 700 area.

4           They could go to the TNX. Where  
5 they got farmed out to is really not  
6 trackable. So, I've included it there as a,  
7 kind of a gray type of area, because if we  
8 were to recommend a Class, the people with the  
9 construction trades in the central shops,  
10 would be included because we just can't track  
11 where they went, as well as we can all of the  
12 other workers.

13           So, again, this is construction  
14 trades. Generally, with exotic radionuclides  
15 there's less bioassay for construction trades  
16 workers compared to operations workers.

17           And a concern has been raised as  
18 to whether the coworker models, that we've  
19 proposed in our SEC Evaluation Report, are  
20 applicable to construction trades workers.

21           And the main reason is because of  
22 the difference in the nature of the work.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 They have a potential for higher intensity  
2 exposure, but less frequent. So how that  
3 plays out is uncertain.

4 Now with exotic radionuclides,  
5 what we proposed is to use the coworker  
6 models. Now at Savannah River, we actually  
7 have a large quantity of data, and so we're  
8 proposing to compare construction trades  
9 workers to all monitored workers.

10 And so we developed first the all  
11 monitored worker/coworker model, and then  
12 develop a construction trades worker model,  
13 and then do a hypothesis test to compare the  
14 two models, to see if there's a difference.

15 When we compared them for tritium,  
16 because that was the easiest to do, back in  
17 December of this past year, we didn't see any  
18 difference between construction trades and the  
19 all monitored workers. But for exotic  
20 radionuclides, it could be different; we just  
21 don't know. In this particular case, for  
22 bioassay samples for coworker models, the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 first bullet there, the trivalents,  
2 americium, curium, californium, we have about  
3 13,000 urinalysis samples between '64 and 1980  
4 for that trivalent series.

5 Neptunium we have about 3,000,  
6 plus the NOCTS whole body counts. These would  
7 be whole body count data that's within the  
8 NOCTS data set.

9 And then for mixed fission  
10 products, there's 49,000 urinalysis samples,  
11 as well as the NOCTS whole body counts.

12 Now, for the trivalents,  
13 americium, curium and californium, I believe  
14 during our Work Group meeting in February, I  
15 had incorrectly spoken and said that we would  
16 be able to provide this data set to the Work  
17 Group and such that you all could do analysis  
18 on them simultaneously with us, by May, I  
19 believe.

20 Well, what turned out was we were  
21 trying to just use the NOCTS data and we  
22 didn't have the full data set. And what

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 turned out was we didn't have sufficient data  
2 to do the comparison.

3 So, back in March, we started  
4 coding those 13,000 americium, curium and  
5 californium samples. That coding effort  
6 should be completed by the middle of June, and  
7 then we can begin on that analysis part.

8 For neptunium, all of that data  
9 has been coded. The mixed fission products  
10 were currently under evaluation. Now, during  
11 my presentation to the Board in February, when  
12 I was discussing the tritium and I believe Dr.  
13 Richardson asked about, or maybe it was Dr.  
14 Field, about how we selected who was a  
15 construction trade and who wasn't.

16 And I indicated at that time we  
17 were using self-reported data. And there  
18 appeared to be some concern from that. Well,  
19 at Savannah River we have all of the work  
20 history cards for people who worked there.

21 So, one of the steps that we can  
22 do is go through each bioassay sample within

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 that time period and actually code their  
2 actual job. This is very time-consuming.

3 I would like to be able to use the  
4 self-reported data that we can readily get.  
5 It's already electronic from with NOCTS, but  
6 our current path is to use the work history  
7 cards.

8 The bottom line with this is that  
9 to complete all three of these analyses,  
10 taking this path, has pushed the actual time  
11 line out about a year, out to May.

12 And so that has some concerns in  
13 and of itself, that we wouldn't get this  
14 answer for a very long time in going down this  
15 path.

16 The final issue is the time line  
17 for the other exotics. And back in March,  
18 when we were there at the site, we went  
19 through the Savannah River Laboratory Monthly  
20 Reports.

21 And we selected excerpts from  
22 those reports that talked about other

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 radionuclides, such as polonium, thulium and  
2 technetium, actually, and several other ones  
3 that they worked with.

4 And so we've begun to build a  
5 matrix of when they worked with some of these  
6 small projects. Those excerpts are currently  
7 undergoing classification review, so we  
8 haven't gotten them yet.

9 But this was all done within the  
10 classified vault with SC&A's assistance, as  
11 well. And, so with that, I'd be happy to  
12 answer any questions.

13 CHAIRMAN MELIUS: Thank you, Tim,  
14 and can I remind people on the phone that,  
15 please mute your phones. If you don't have a  
16 mute on the phone, \*6, works, we're hearing  
17 some background, an occasional sneeze, but it  
18 would be helpful, thank you.

19 Board Members with questions? Why  
20 don't I start off because maybe Bill or Tim,  
21 someone can sort of refresh my memory on the  
22 concern about using the self-reported, you

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 know, work data. As to why that would be a,  
2 to what degree it would be a problem or do we  
3 know, so I just don't quite understand it.

4 DR. TAULBEE: I believe the  
5 concern dealt with, that if you have people  
6 who are actually not a construction trades  
7 worker, it would be in that pile that your  
8 hypothesis testing could be flawed, that if  
9 you didn't see a difference it would be more  
10 biased towards the null of never seeing  
11 anything, is what they were concerned about.

12 And I can't remember, I think it  
13 was Dr. Richardson, is that correct, who  
14 brought that up.

15 CHAIRMAN MELIUS: It actually  
16 sounds like a David Richardson question.  
17 Because it certainly does change the task.  
18 And I think it somewhat depends on -- the  
19 amount of bias is going to depend on how much  
20 misclassification there is, and so forth.

21 And I don't know if there's a way  
22 of sort of evaluating that before embarking

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 on, you know, if you did a comparison on a  
2 sub-sample or sample of those that you could  
3 determine to what extent there is, how  
4 significant the Misclassification is.

5 I think it's hard to judge from a  
6 distance because it somewhat depends on how  
7 you're classifying and so forth.

8 DR. TAULBEE: One interesting part  
9 about that component right there is that once  
10 we, if we go down the path and code all the  
11 work histories for the trivalent, we do have  
12 that electronic data set so those two could  
13 actually be compared.

14 MEMBER FIELD: Just so the next  
15 time you speak, you can say it was me that  
16 asked this question, okay?

17 (Laughter.)

18 DR. TAULBEE: I'm sorry.

19 MEMBER FIELD: With the workers, I  
20 guess the concern would be for self-reported  
21 information for the next of kin that may not  
22 know that information. So it would be a good

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 number of folks, I would imagine, that would  
2 construction workers that if they weren't able  
3 to self-report, you would never know. Is that  
4 correct?

5 DR. TAULBEE: That is correct to  
6 some degree. If they were monitored for  
7 external radiation, and 80 percent of the  
8 claimant population was monitored, we would  
9 have the indication based upon their badge  
10 number, as to which they were.

11 So we could augment some of that  
12 to reduce the misclassification, but you're  
13 absolutely right. If they were not monitored,  
14 then they could be misclassified.

15 CHAIRMAN MELIUS: By the way, the  
16 trick is to attribute the comment to a Board  
17 Member who is not present. And that way --  
18 so, Mark was the one that asked all the  
19 questions and we blamed everything on  
20 yesterday, before he got here.

21 Wanda, and then Josie.

22 MEMBER MUNN: It would seem just -

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 - nothing scientific -- just common sense  
2 would tell one that a construction worker  
3 would be more likely to self-identify, or the  
4 family would be more likely to know that that  
5 person was a construction worker than would be  
6 true of almost any other designation, because  
7 if a person works in construction, they work  
8 in construction. Whether, regardless of who  
9 their employer is, it's not likely that they  
10 would be mistaken as a laboratory technician,  
11 for example.

12 It just, on the other hand,  
13 families frequently don't know what the work  
14 is that a person does, if they do not have a  
15 clear designated trade of that sort.

16 It just seems reasonable to me  
17 that you'd more likely know that.

18 MEMBER FIELD: I guess it depends  
19 on if construction workers have classification  
20 or not. I don't know that, for the site. If  
21 they do, then the family may not know.

22 MEMBER MUNN: No, I was thinking

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 in terms of self-classification here.

2 CHAIRMAN MELIUS: Tim, do you want  
3 to respond?

4 DR. TAULBEE: I believe what Ms.  
5 Munn is getting at is absolutely right. If  
6 somebody was a carpenter the family would  
7 generally know that they were a carpenter or a  
8 plumber or a pipefitter or that type of a job.

9 So, I think that misclassification  
10 would be minimal but I can't rule it out.

11 CHAIRMAN MELIUS: Okay, okay.  
12 Josie, you had a question or no, okay. Phil?

13 MEMBER SCHOFIELD: What about  
14 those people who migrated from construction  
15 jobs into, like, lab workers or whatever?

16 DR. TAULBEE: By the way that  
17 we're going through -- and that's one of the  
18 problems that you identified there with the  
19 self-report -- because it's generic over the  
20 whole time period. By going through the work  
21 history cards, which is taking us a  
22 significant effort in order to do that, we're

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 pairing the individual bioassay with what  
2 their job was at that time. So it would  
3 change and it would track a person going  
4 through starting out in construction and then  
5 maybe moving into a foreman or even to a  
6 laboratory person. So, it would track that.

7 That's the, one of the major  
8 benefits of the work history cards. But it is  
9 a very time-consuming effort.

10 CHAIRMAN MELIUS: Okay, Board  
11 Members on the phone, do you have any  
12 questions?

13 MEMBER ZIEMER: Ziemer, here, I  
14 don't have any questions, I just appreciate  
15 the presentation the Tim Taulbee has given.

16 MEMBER CLAWSON: This is Brad, I  
17 don't have any comments.

18 CHAIRMAN MELIUS: Okay, thanks.  
19 And, by the way, that was one of our Board  
20 Members sneezing, not someone on the phone.  
21 So, just to clarify that.

22 Okay, why don't we hear from Mark,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 now. Don't go too far away, Tim, because we  
2 may have more questions.

3 MEMBER GRIFFON: My comments will  
4 actually be pretty brief because I think Tim  
5 went over a lot of the same ground. I wasn't  
6 sure exactly how much of an update he was  
7 going to give with regard to the thorium  
8 issue.

9 So I think I can shorten this a  
10 little bit. Now, I just have to find it.  
11 Okay, so just to give an overview of where the  
12 Work Group has been on these issues.

13 And I think I used this, a similar  
14 slide last time, that I gave an update. But  
15 there are 25 issues, and I think Tim touched  
16 on a lot of this.

17 Twenty-one remained at that point,  
18 because we kind of merged a couple. And we  
19 really closed out two items regarding external  
20 exposure and the use of the electronic  
21 database for external exposure, co-worker  
22 model, closed out at least with regard to an

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 SEC issue, may still have some Site Profile  
2 questions, but closed out for the SEC review.

3 Of the 19 remaining, there is 14  
4 that are focused on internal dose. So the  
5 highlight of the issues is mainly the internal  
6 dose issues.

7 And the last bullet there says,  
8 there are several items that we went through  
9 the petition, we asked SC&A to go through the  
10 petition.

11 And the petitioner has been, to  
12 some extent, involved in the meetings and  
13 issues that have come up in that regard, we've  
14 basically, I believe, all of them have fit  
15 into other matrix items at this point.

16 So we're capturing all the other  
17 petitioner items, but they all fit into these  
18 19 remaining issues.

19 The focus here for me is going to  
20 be the thorium question. And as Tim pointed  
21 out, it's broken up into this '53 to '65, and  
22 '65 to '71, and I'm going to say two different

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 words here. And beyond, is the question that  
2 I think has been raised.

3 So there's a question of this '71  
4 cutoff or further regarding the thorium  
5 question.

6 This summarizes a little bit of  
7 where we're at. In April 28, 2010, NIOSH  
8 published an addendum to its ER Report. Tim  
9 went through a lot of this.

10 It focused on the 300 M area, and  
11 I guess the key bullet here, I'm skipping some  
12 things because it would be redundant from what  
13 we've heard already.

14 The key bullet here is that NIOSH  
15 did not examine work on thorium in any other  
16 area during the '53 to '65 period.

17 The one last bullet there is that  
18 also one of the rationale for the approach  
19 presented to us was that they found the  
20 bioassay work sheets that they concluded were  
21 all, all the results were below the MDA.

22 This was actually a success of the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Work Group process. We actually got off-line  
2 for a second and had everybody look at the  
3 same computer, and we determined, no, in fact  
4 there were some that were over the MDA.

5 Something, a little mini-win for  
6 the Work Group, which I was quite proud of, we  
7 actually got some work done.

8 Overall conclusions for this first  
9 period, '53 to '65, this is SC&A's overall  
10 conclusions. The key there, again, is in the  
11 first bullet.

12 The concern of, that it omits  
13 several source terms and this is still an  
14 ongoing project, obviously Tim has discussed.

15 The second item is there's still  
16 some questions remain, from SC&A's standpoint  
17 about the scientific validity of the approach.

18 There's a limited number of air  
19 samples for this early time period. Only  
20 about half of them were alpha-counted and  
21 there's some question about the conversion  
22 from the counts on the air sample to actual

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 airborne concentrations.

2 So you have CPM, is the way  
3 they're recorded, I believe. And there's some  
4 question about how that's converted, based on  
5 calibration factors and other information.

6 Time from sample to count time,  
7 things like that. And, finally, the  
8 representativeness of the air samples they, I  
9 think Tim did touch on that a little this  
10 morning, that they've interviewed some  
11 technicians and that's more information than I  
12 had heard before, regarding whether these are  
13 representative of worker samples or the  
14 exposures the worker would have received.

15 The last item is something that  
16 wasn't really hit on too much, but it related  
17 to this thorium issue, there was a question on  
18 the thoron dose reconstruction with radon-  
19 220.

20 The second time period, '65 and  
21 after, as I say in this slide, again, the  
22 report focused on the thorium oxide, as Tim

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 outlined in very great detail in his  
2 presentation.

3           They went from the thorium metal  
4 to the thorium oxide, in the 300 area. But  
5 we're pointing out here that this -- only  
6 recover the thorium oxide in that one area,  
7 the 300 M area.

8           Use of the air samples from '64,  
9 to '68, to draw conclusions for that entire  
10 period, '65 to '71. And I would say possibly  
11 further than '71, is some of the information  
12 that SC&A has gathered that it may went, gone  
13 beyond that.

14           And then the last item, is just  
15 consistent with what was just said. That  
16 there's a data-capture effort and I believe  
17 SC&A is working with NIOSH in that regard.

18           The preliminary review, again,  
19 this is talking about that second time period,  
20 '65 to '71. And I think, one of the key  
21 points on this slide is that we had asked, and  
22 this is key throughout the whole time period,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 that we had asked SC&A to consider  
2 construction workers and non-construction  
3 worker data.

4 And partially because it's all  
5 being rolled together, this is operations data  
6 and even though the petition focuses on  
7 construction workers, we ask that SC&A  
8 consider the ability to reconstruct doses for  
9 both those groups.

10 And I guess one point I would make  
11 here is that I think NIOSH, in their  
12 consideration of an approach or a possible  
13 83.14, as Tim described in his one slide, I  
14 think NIOSH should also consider, if they are  
15 going to move in the direction of 83.14,  
16 whether it applies to construction workers and  
17 possibly non-construction workers, NIOSH can  
18 redefine that Class.

19 And SC&A did point out that there,  
20 these findings that they're finding, related  
21 to the thorium reconstruction effort, apply to  
22 both those populations. And here, now this

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 might be a little confusing, but it, because  
2 the first bullet point points out that these  
3 things apply to that whole time period.

4           Even though I was just talking  
5 about the second, '65 to '71, time period.  
6 But this points out, and it's not inconsistent  
7 with Tim's slide. I guess part of the effort  
8 going forward is going to be that SC&A NIOSH  
9 have to compare their lists of possible areas  
10 of concern because I'm not sure if all these  
11 areas that I underlined, including the 200  
12 area, 773 area, if I'm correct, that fits into  
13 the 700 series of buildings.

14           So that may have been touched on  
15 by what Tim presented. But I don't know that  
16 he touched on some of these other areas. Like  
17 the Building 643 G and the 100 reactor area.

18           So again, we, I think we need to  
19 get SC&A and NIOSH to make sure that all these  
20 areas of potential concern, potential thorium  
21 exposure are considered. Then there are some  
22 questions that SC&A raised about even the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 reconstruction effort on the 300M area,  
2 notwithstanding the concerns about other  
3 areas.

4 And one is that, looking at the  
5 underlying things here, NIOSH has not  
6 discussed recycled thorium, so the thorium  
7 that may contain uranium-233 and other  
8 isotopes after it's been irradiated, whether  
9 that came back in the 300M area.

10 The second bullet focuses on the  
11 past 1971, kind of thing, the question of,  
12 SC&A seems to have some documented evidence  
13 that it may have extended into, up to 1980, so  
14 SC&A has raised that concern.

15 The third bullet talks about the  
16 other described work other than the thorium  
17 oxide in the '65 and later period, may have  
18 been going on in this 300M building.

19 And then the combined exposure of  
20 thorium and enriched uranium in the 300M  
21 area, how that will be dealt with. So several  
22 other issues, even in the 300M area were

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 raised by SC&A.

2 Conclusions on the '65 to '71 and  
3 beyond time frame. You know, it goes back to  
4 these main themes, is that the question on the  
5 source terms. Were all source terms  
6 considered in the 300M area? Questioning of  
7 the adequacy of the air sampling data. The  
8 time coverage, but also the questions related  
9 to the actual using the count data and how  
10 converting that to airborne concentrations.

11 And then the processing beyond  
12 '71. And this is the last slide. It just  
13 lists the, it lists the reports that have gone  
14 back and forth between SC&A and NIOSH, and I  
15 guess a memo to me.

16 So that's all I had. I think Tim  
17 did a very good job and Tim's presentation  
18 actually went beyond where we were at the last  
19 Work Group meeting, so there was some new  
20 information put on the table by NIOSH. So  
21 that's just sort of an update of where the  
22 Work Group has been.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 I think it looks clear that we'll  
2 have to have another meeting before the August  
3 meeting and hopefully we can come to some  
4 decisions on thorium by the August meeting,  
5 and that's all I have.

6 CHAIRMAN MELIUS: Thank you, Mark.

7 Any questions for Mark? Yes, Bill.

8 MEMBER FIELD: Mark, you have  
9 mentioned the one slide, there was questions  
10 with counting methods for the thoron. Was  
11 there any thoron measurements performed at  
12 all?

13 MEMBER GRIFFON: Thoron  
14 measurements were very limited, but I'll,  
15 maybe I'll bring Arjun up to say how limited,  
16 or Tim could speak to it.

17 DR. MAKHIJANI: Yes, there were  
18 some measurements where there were counts done  
19 of the air samples repeatedly, so that thoron  
20 could be inferred from those counts because of  
21 the decay of the short-lived radionuclides.

22 And those samples were limited.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 There was some counting problems and there  
2 were very few samples.

3 DR. TAULBEE: In that thorium  
4 area, there were times where we had the  
5 initial count, the 24-hour count and the 72-  
6 hour count.

7 MEMBER GRIFFON: How many, you  
8 said limited, Arjun, but do you recall how  
9 many?

10 DR. MAKHIJANI: I think I, in the  
11 earlier, '53 to '65 period, there were only  
12 eight samples, but three or four of them were  
13 actually beta-counted.

14 So I think only four usable  
15 samples and almost all of them were in a  
16 limited period. I think three of the four  
17 were on the same day, actually. And then  
18 there was one on another day, '54 and '55. So  
19 the '53 to '65 period is essentially not  
20 covered. So we didn't think, at least in that  
21 earlier period, there was a basis to do thoron  
22 dose estimation.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   In '65 to '71, I don't remember,  
2 if you give me a minute, I'll look at the  
3 report.

4                   CHAIRMAN MELIUS:     Okay, anybody  
5 else have questions? Can we figure out the  
6 timetable for this? Does NIOSH have an idea  
7 when, or whether either assuming an addendum  
8 or an 83.14 is done, what the timing of that  
9 will be?

10                  Obviously, as Mark said, we'll  
11 need a Work Group meeting before August.

12                  MR. RUTHERFORD:       Our full  
13 intention is to have something prepared for  
14 the Board and be ready for the Board to take  
15 action in August.

16                  CHAIRMAN MELIUS:     No, what I'm  
17 asking --

18                  MR. RUTHERFORD:       For the Work  
19 Group, okay. I think that it will depend on  
20 what Tim finds out in early June. We can give  
21 Mark an update as soon as Tim finds out what  
22 he finds out in early June, we can give an

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 update, as quickly after that, when the report  
2 will be ready.

3 CHAIRMAN MELIUS: Okay, good.

4 MEMBER GRIFFON: We could probably  
5 schedule our meeting near the next Board  
6 Meeting. I think it's pretty evident that  
7 you'll need as much time as possible.

8 CHAIRMAN MELIUS: Then two sort of  
9 follow-ups on that. One is maybe this is  
10 planned already or maybe this is  
11 inappropriate, so tell me, but for this data  
12 capture that's coming up in early June, does  
13 it make any sense to have SC&A present for  
14 that or involved in that?

15 Just, again, in terms of  
16 facilitating this process.

17 DR. TAULBEE: It's obviously up to  
18 the Board, as to whether you want that or not.

19 If there's thorium information in that log  
20 book, we will capture the whole thing.

21 CHAIRMAN MELIUS: Okay.

22 DR. TAULBEE: So.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:    Can someone with  
2   more knowledge on this weigh in?    I just  
3   don't, I want to get it, if we're going to do  
4   it we've got to decide now, that's all.

5                   If it's not worth doing, I'm not  
6   pushing it unnecessarily, that's all.

7                   DR. MAKHIJANI:        Dr. Melius, I  
8   don't know if this classified or non-  
9   classified, the classified visit.

10                  DR. TAULBEE:        It's not in the  
11   classified vault, but Savannah River does  
12   require, in order to get access onto site, you  
13   have to have a Q clearance.

14                  DR. MAKHIJANI:        No, we would send  
15   a pre-cleared person, but the reason for my  
16   question was, if there is some classified  
17   documents or some review issues, it would be  
18   better if somebody from SC&A were there, so we  
19   could have some idea at least for, among the  
20   people who have clearance, what is going on.

21                  If the documents can be  
22   immediately posted, there would be no need.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Otherwise, I think, since the time frame is  
2 very short, if it's unclassified and we can  
3 make our notes, then we would have a basis for  
4 discussion, rather than waiting.

5 So I don't know what the time  
6 frame would be for posting the documents. If  
7 they were immediately posted --

8 MEMBER GRIFFON: If it's not an  
9 issue with NIOSH, I just assumed we should  
10 have SC&A represented. Then they are up to  
11 speed and they can, you know, we can get a  
12 full briefing for the Work Group.

13 But if it's not an issue with  
14 NIOSH, I think we should just plan for that.

15 MR. HINNEFELD: No, we're  
16 certainly amenable to that and let's  
17 facilitate this as much as we can.

18 CHAIRMAN MELIUS: And then my  
19 follow-up issue, sort of related to timing and  
20 so forth, is, I think we also want to  
21 authorize SC&A to review the, whatever, if  
22 NIOSH produces a report, when they produce the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 report, so it's ready for the Work Group and  
2 for the Board Meeting.

3 At least, you know, again it's  
4 going to depend on timing, but at least some  
5 review of that, and if there are issues that  
6 need to be raised. Does that make sense,  
7 Mark?

8 MEMBER GRIFFON: Yes, I think in  
9 terms of actions, that makes a lot of sense  
10 that we'll, instead of waiting for the Work  
11 Group to test them, to review the product that  
12 comes to us in early August.

13 We should say that now, that we  
14 would like you to review that product.

15 DR. MAKHIJANI: One last thing,  
16 Dr. Melius.

17 CHAIRMAN MELIUS: Sure.

18 DR. MAKHIJANI: We'd just  
19 appreciate a coordination of the dates because  
20 we've got limited Q-cleared people and just  
21 make sure that we can send someone.

22 CHAIRMAN MELIUS: Okay, probably

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 you can work out with -- yes. So, Mark, do  
2 you want to, then, make a motion to authorize  
3 SC&A to do the review?

4 MEMBER GRIFFON: Does that require  
5 a motion?

6 CHAIRMAN MELIUS: Well, either the  
7 Work Group or the Board has to do it, correct?

8 MR. KATZ: Well, this really  
9 underway already and then Work Group --

10 CHAIRMAN MELIUS: Okay, okay, fine  
11 then. I'm just trying to --

12 MEMBER GRIFFON: It's just ongoing  
13 work.

14 CHAIRMAN MELIUS: Yes, I just want  
15 to make sure we get it. Don't come back in in  
16 August and say, why didn't we do this and so  
17 forth.

18 Any other comments or questions or  
19 things we need. I'd like to thank both Tim  
20 and Mark. I know that some of us are  
21 reviewing and reacting on the fly to  
22 information, but I think this is helpful in

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 terms of trying to expedite this going  
2 forward.

3 I know it's a big site and it's  
4 very complicated and it's hard to get a handle  
5 on it. And I think, hopefully this is a good  
6 way forward on this and we'll be able to  
7 certainly make significant progress by August.

8 MEMBER ZIEMER: Dr. Melius?

9 CHAIRMAN MELIUS: Yes, Paul, I'm  
10 sorry.

11 MEMBER ZIEMER: Paul Ziemer here.

12 I wasn't able to locate a copy of Mark  
13 Griffon's slides. Were those distributed or  
14 can I get a copy?

15 CHAIRMAN MELIUS: We will all get  
16 a copy. They were not distributed.

17 MEMBER GRIFFON: Those were  
18 drafted in the Boston Express bus this  
19 morning.

20 CHAIRMAN MELIUS: And then  
21 slightly modified in the, when our break, in  
22 order to react to, at least initially react to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Tim's presentation.

2 When I say this is like you're on  
3 the fly, it was, and we appreciate everybody's  
4 effort. It was not, kind of like a well  
5 planned effort on this one.

6 But I think it was very helpful  
7 and we will get those distributed to  
8 everybody. And certainly things like, I don't  
9 know if it's a technical call or how we work  
10 this, but trying to resolve this, the issues  
11 on different areas where thorium was used and  
12 the building nomenclature sort of issues,  
13 whatever you call it. Or, you know, getting  
14 those, I think we can get that done soon, I  
15 think that would be helpful also, if only not  
16 to confuse us Board Members who are not as  
17 involved in this effort.

18 MEMBER GRIFFON: Right, I guess  
19 that is a part that I would urge NIOSH and,  
20 Arjun, I guess you're the point of contact on  
21 that.

22 CHAIRMAN MELIUS: Yes, he does.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER GRIFFON:   Because there, at  
2   least to me, it seemed to be like some areas  
3   that I mentioned in my slides that SC&A had  
4   pointed out as potential thorium-exposure  
5   issues were not captured in NIOSH's, so, yes,  
6   go ahead, Arjun.

7                   DR. MAKHIJANI:    Yes, thank you,  
8   Mark. We, I also noted the same thing. And I  
9   just wanted to put a caveat that what we did  
10  was just to illustrate that there were many  
11  areas where thorium work happened.

12                   We, I stated in our report, we  
13  made no attempt to make a comprehensive  
14  catalog or time frame or buildings, but there  
15  were many examples that came up on a simple  
16  thorium word search.    And we gave some  
17  examples, many examples, actually.

18                   So we haven't done a comprehensive  
19  thing. But I did note that like the 643 G  
20  area and the burial grounds and so on, were  
21  not covered in the NIOSH presentation.

22                   MEMBER GRIFFON:    I guess I would

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 hope that, in whatever form NIOSH presents,  
2 whether it's 83.14 or a revised approach, that  
3 they do a comprehensive -- if those other  
4 areas are insignificant quantities or things  
5 like that, as long as you can account for it.

6 And, as Arjun said, there may be  
7 others that are not included in SC&A. They  
8 pointed those out as examples.

9 CHAIRMAN MELIUS: Well, I think to  
10 the extent it's feasible for NIOSH to do that  
11 between now, and I'm not sure. It seems like  
12 a fairly complicated site.

13 MEMBER GRIFFON: But at least to  
14 address the ones that are on the table.

15 CHAIRMAN MELIUS: On the table,  
16 yes, yes. And, no, and that's something that  
17 certainly needs to be dealt with in the  
18 future, going forward on this. Good.

19 Okay, again, thank everybody. We  
20 will take our break now and we will be back  
21 here at 1:30. Ted, do you have any  
22 announcements to make?

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)



1 off, our people on. We've got Dr. Lemen in  
2 the middle here.

3 Finally, did someone take his  
4 chair? If the Members of the Board could take  
5 their chair -- the esteemed Members of the  
6 Board.

7 MR. KATZ: I think I heard Dr.  
8 Ziemer on the phone, is that correct?

9 MEMBER ZIEMER: I am here. I'm  
10 not able to be esteemed and take a chair  
11 there, but I will be on the line.

12 CHAIRMAN MELIUS: Dr. Ziemer, you  
13 are esteemed, even from a distance.

14 MEMBER CLAWSON: Well, what does  
15 that say about me, then?

16 (Laughter.)

17 MR. KATZ: So we have Mr. Clawson,  
18 too, the esteemed Mr. Clawson, that's nice.

19 MEMBER CLAWSON: Oh, there we go,  
20 yes.

21 MR. KATZ: Do we have any other  
22 Board Members on the line?

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 (No response.)

2 MR. KATZ: Okay, very good.

3 CHAIRMAN MELIUS: Okay, Ted will  
4 now remind you --

5 MR. KATZ: Let me remind, yes,  
6 please, everyone on the phone line, mute your  
7 phone. And if you don't have a mute button,  
8 press \* and then 6 and that will mute your  
9 phone, thank you.

10 CHAIRMAN MELIUS: Okay. This  
11 afternoon we will start with a presentation on  
12 the new Hanford SEC petition on the plutonium  
13 finishing plant and Sam Glover is going to  
14 present.

15 And I believe we then may hear  
16 from the petitioners a little bit later.  
17 Usually our procedure, so the petitioners  
18 know, is we hear from NIOSH, the Board Members  
19 ask about the NIOSH presentation. Then we'll  
20 give an opportunity for the petitioners to  
21 speak, if they wish.

22 MR. KATZ: Just for the record,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Ms. Beach and Ms. Munn have both recused  
2 themselves from this session.

3 DR. GLOVER: Dr. Melius, Members  
4 of the Board, I'm going to change gears from  
5 Sandia to Hanford. And so we're talking about  
6 a special, a new Special Exposure Cohort  
7 Petition Evaluation Report and this was  
8 received November 10th, 2009.

9 The petitioner proposed a Class  
10 very late in the time frame and very specific.

11 And that's something we'll talk about. But  
12 their proposed Class was: all personnel who  
13 were internally monitored by urine or fecal  
14 measurements, who worked at the plutonium  
15 finishing plant in the 200 area at the Hanford  
16 site, from January 1, 1987, through December  
17 31, 1989.

18 So on May 3rd, 2010, the petition  
19 qualified for evaluation. And it qualified  
20 under the basis that radiation monitoring  
21 records for members of a Class -- proposed  
22 Class had been lost, falsified or destroyed.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 That was the proposal.

2 So, we'll go into that a little  
3 bit more, but let me -- the backdrop, you guys  
4 are pretty well versed, and we've talked  
5 about Hanford quite a bit.

6 There are three current SEC  
7 Classes that have been enacted for Hanford.  
8 There was a Class enacted from October 1,  
9 1943, through August 31st, 1946, for selected  
10 areas within Hanford.

11 And that was SEC-57-1. Then a  
12 second Class from September 1, 1946, through  
13 December 31, 1968. Again, for selected areas  
14 within Hanford, was 57-2.

15 After we looked at those Classes  
16 and how they were being -- the inability to  
17 properly implement them, a third Class, a  
18 subsuming Class was added more recently as  
19 SEC-152, from October 1, 1943, through June  
20 30, 1972, for all areas of Hanford.

21 SEC-57 actually was a compilation  
22 of several SEC petitions. Actually,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 originally requested from '43, to I believe  
2 the early 1990s or around 1990.

3 So, it actually is an ongoing  
4 still with the Board, we're continuing to  
5 review those later years.

6 So we again continued to review  
7 post-1972. The time frame associated with  
8 SEC-155 was encompassed by 57, however, this  
9 SEC-155 was so specific and so focused on the  
10 data falsification, which really wasn't  
11 brought up in this separate SEC petition, that  
12 it was deemed appropriate for a separate  
13 review.

14 The petitioner's specific evidence  
15 of accusations by the US EPA of purposeful  
16 wrongdoing by US Testing resulted in NIOSH  
17 determining that issues regarding quality of  
18 bioassay data required further investigation  
19 as a separate issue from the continuing Board  
20 Evaluation.

21 The intent of NIOSH's separate  
22 Evaluation in this report for SEC-155 is to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 ensure that issues identified with US  
2 Testing's non-bioassay analytical programs,  
3 did not also adversely affect the company's  
4 bioassay analysis operations in Richland,  
5 Washington.

6 So what did we look at? Kind of  
7 the standard, to some degree, the Technical  
8 Basis Documents, the information we've done,  
9 the Technical Information Bulletins.

10 We interviewed several people who  
11 we thought would have information regarding  
12 this process or this time frame. Obviously  
13 looking at do we have existing claimant files,  
14 documentation provided by the petitioner.

15 We collected over 7,500, and these  
16 are really SRDB entries, but they may contain  
17 numerous documents and, in some cases, are  
18 well over 300 to 400 pages.

19 We also had data captures at  
20 Hanford and at the Office of the Inspector  
21 General for DOE. We want to start out by  
22 saying that the interviews with the eight

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 workers, none of the statements collaborated  
2 the falsification of data from the radio  
3 bioassay program.

4 So I was going to start with that  
5 aspect. A bit about the previous dose  
6 reconstructions, we have 4,034 claims  
7 submitted to NIOSH.

8 Claims within the time frame was  
9 1,347. Claims containing internal dosimetry,  
10 914. Claims with external dosimetry are  
11 1,310.

12 We did not break out specifically  
13 the plutonium finishing plant as part of this.

14 That may or may not be readily done, but not  
15 within the existing NOCTS.

16 NIOSH evaluated the time period  
17 requested by the petitioner, January 1, 1987,  
18 through December 31, 1989. The location was  
19 specified as employees who worked at the  
20 plutonium finishing plant.

21 Evaluation was primarily focused  
22 on the program which applies to all of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Hanford. This would be a, if they were  
2 falsifying data, it really wouldn't be just  
3 the plutonium finishing plant, it would be a  
4 broad scope problem.

5 The Evaluation does not repeat the  
6 discussions from the Evaluation Report for  
7 SEC-57 or SEC-152. We describe briefly the  
8 activities at the plutonium finishing plant  
9 during the time period in question.

10 The focus of the Evaluation was on  
11 data falsification and not source-term-related  
12 information. Very briefly then, on the  
13 plutonium finishing plant, in this late time  
14 frame, they had weapons grade metal  
15 production, occurring in the remote mechanical  
16 C line.

17 The plutonium reclamation facility  
18 was operational, miscellaneous treatment  
19 system glove box operations, analytical  
20 laboratory operations, they had development  
21 laboratory operations.

22 They also had polycube processing,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 which is an unusual material mixture of  
2 polystyrene and plutonium oxide, they were  
3 using to do criticality experiments.

4 They were basically handling that  
5 probably for disposal purposes, how to break  
6 that down and get that into -- they had a  
7 large variety of metal handling and operations  
8 going on in this late time frame.

9 So potential radiation exposures  
10 during the Class period. They certainly have  
11 internal exposure to plutonium finishing  
12 plant, to a broad spectrum of internal  
13 emitters, particularly plutonium and  
14 americium. External sources of exposure,  
15 really not the driving source here, because  
16 we're really looking at falsification of  
17 bioassay data.

18 But they do certainly have  
19 photon/beta exposure from various activities,  
20 as well as neutron exposure. Internal  
21 monitoring data, US Testing processed several  
22 thousand bioassay samples during the period in

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 question.

2 Urinalysis was the principle  
3 plutonium method. Workers deemed to have a  
4 higher risk or those involved in potential  
5 incidents may also had fecal samples.

6 Americium was typically monitored  
7 by in vivo measurements. And so, while there  
8 are some americium measurements that were done  
9 by US Testing, those are usually corroborated  
10 by a separate method, which was in vivo  
11 measurements.

12 External monitoring data that's  
13 available is extensive. Monitoring results  
14 are available for the beta photon, as well as  
15 neutrons, in this time frame.

16 A little background on US Testing.

17 US Testing began providing analytical  
18 services to Hanford in 1965, so this company  
19 did the work for a long time for Hanford,  
20 including the bioassay.

21 US Testing's radioanalytical  
22 facilities were located in Richland,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Washington, and the Richland facility also did  
2 non-radiological analyses.

3 US Testing had another laboratory  
4 in Hoboken, New Jersey, and they also perform  
5 non-radiological analyses. Pacific Northwest  
6 National Laboratories was responsible for  
7 overseeing the quality of the data produced by  
8 US Testing from 1979 to 1991. They had a  
9 Quality Assurance Program, including blind  
10 bioassay samples. Approximately 250 blanks  
11 and QC samples during the 1987 through '89  
12 time frame.

13 Annual reports during the time  
14 period of interest were reviewed by NIOSH as  
15 part of this evaluation.

16 Additional information on US  
17 Testing audits. PNNL conducted a lengthy  
18 procurement process prior to the awarding of  
19 the September 1988 contract.

20 They included technical and  
21 quality assurance control evaluations. They  
22 further evaluated data quality provided by US

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Testing in the fall of 1989, and they  
2 presented the results to Westinghouse Hanford  
3 Company, US EPA, US DOE and the state of  
4 Washington.

5 US Testing participated in an  
6 ongoing external quality assessment program,  
7 conducted by the DOE Environmental  
8 Measurements Laboratory, formerly the Health  
9 and Safety Lab, and the EPA Intercomparison  
10 Quality Control Programs.

11 However, in 1990, April 25th, US  
12 EPA suspended US Testing from federal  
13 contracts. The Notice of Suspension alleged  
14 that the management of US Testing conspired,  
15 directed and carried out, and otherwise  
16 condoned a scheme to defraud the United States  
17 Government in its performance at the  
18 facilities in Richland, Washington and  
19 Hoboken, New Jersey.

20 The Notice also alleges that this  
21 scheme resulted in the submission of false,  
22 inaccurate and the unreliable test results and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 data. Suspension was related to EPA's  
2 investigation of US Testing is related to  
3 falsification of environmental, non-  
4 radiological sample data.

5 US Testing admitted wrongdoing and  
6 pleaded guilty to the felony on April 17,  
7 1991. US EPA's suspension of US Testing  
8 caused US DOE to order PNNL to review US  
9 Testing's data quality.

10 In the beginning of May, 1990,  
11 PNNL conducted two separate activities. It  
12 conducted a formal audit of past US Testing  
13 activities, including data traceability.

14 They also had a three-week on-site  
15 performance-based technical oversight of  
16 current US Testing practices.

17 On June 1, 1990, the US DOE  
18 announced the contract with US Testing was  
19 being terminated for default. Termination was  
20 based on findings that US Testing had sent  
21 certain samples to its Hoboken facility  
22 without appropriate quality control, quality

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 assurance as required by the Battelle  
2 contract. They also say that US Testing  
3 billed the government through Battelle for  
4 these samples.

5 The samples were dioxin and total  
6 petroleum hydrocarbons. They were non-  
7 radiological. Westinghouse Hanford, US EPA,  
8 US DOE and the state of Washington also  
9 performed independent evaluations of US  
10 Testing.

11 A significant report was produced  
12 by the University of Washington called the  
13 Omenn Report. They evaluated data from 1983,  
14 to 1990, from US Testing, focusing on in vitro  
15 bioassay data.

16 In 1992, PNNL summarized the  
17 series of reviews as they relate to the  
18 quality and usability of US Testing data. The  
19 report concluded that the data produced under  
20 the Battelle contract with US Testing are  
21 technically supportable for the purpose of  
22 which they are collected. And all activities

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 performed to date support the technical  
2 credibility of the data provided by the US  
3 Testing Richland Laboratory.

4 No indication from any evaluation,  
5 audit or surveillance of the data from US  
6 Testing facility was technically compromised.

7 The feasibility of dose  
8 reconstruction, based on our review, NIOSH  
9 found no support for an SEC based on  
10 falsification of data.

11 NIOSH and the Advisory Board  
12 continue to evaluate various SEC-related  
13 issues in the 1972 to 1990 period. The NIOSH  
14 recommendation, NIOSH has obtained numerous  
15 documents containing monitoring results,  
16 bioassay program audit reports, independent  
17 bioassay program data evaluations, as well as  
18 Hanford process and source-term information.

19 In addition, several individuals  
20 with first-hand knowledge of the contractor  
21 bioassay laboratory issues during the period  
22 under the evaluation were interviewed.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   Employee-specific                   information  
2   provided through the EEOICPA claims process  
3   and Technical Basis Documents written by NIOSH  
4   have also been available for the evaluation.

5                   Based on its analysis of these  
6   available resources, NIOSH found no part of  
7   the Class, under this very specific  
8   evaluation, from this very focused  
9   falsification issue, for which estimated  
10   radiation doses with sufficient accuracy could  
11   not be performed.

12                  So, based on this evaluation we  
13   say that we have a feasibility of yes and  
14   health endangerment is not applicable.

15                  CHAIRMAN MELIUS:    Okay, thanks,  
16   Sam. Questions for Sam? Bill.

17                  MEMBER FIELD:    Sam, on your one  
18   slide, it talks about the Quality Assurance  
19   Program and it indicates there were about 250  
20   blanks. Were there spikes as well?

21                  DR. GLOVER:    Yes, there were QC  
22   samples, as well, and they did evaluate those.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER FIELD:     Do you know how  
2 many there were?

3                   DR. GLOVER:     I don't, I mean it's  
4 not a tremendous amount.   It's in the order  
5 of, I would say in that two-year period they  
6 had --

7                   MEMBER FIELD:     I'm just wondering  
8 --

9                   DR. GLOVER:     My recollection is  
10 there were 60 to 70ish numbers in a year.  
11 It's not a tremendously large number. We do  
12 have that in the Evaluation Report. And I  
13 apologize, I simply don't remember.

14                   MEMBER FIELD:     And that looks  
15 pretty good?

16                   DR. GLOVER:     They had the typical  
17 problems that -- you know, you had some bias.  
18 They performed within acceptance of say, ANSI  
19 criteria.

20                   They had some MDA issues, but  
21 nothing that said that they were falsifying  
22 data, things that you would find in a normal

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 laboratory.

2 MEMBER FIELD: Because my  
3 understanding would be that the data  
4 falsification was reducing concentration, so  
5 is that correct? Or was it increasing -- I  
6 can't imagine why they would want to increase  
7 it.

8 DR. GLOVER: In the, for these  
9 non-radiological samples, there were several  
10 things apparently happened. They sent samples  
11 and there was not an appropriate QC sample  
12 process at this facility.

13 They used a facility that was not  
14 approved to do the work for what they were  
15 paid for. And so, because they didn't have  
16 that QC in place, it invalidated those. At  
17 least, you know, it makes them suspect.

18 And so that was a large part of  
19 it.

20 MR. HINNEFELD: If I might, Sam,  
21 some environmental samples also have a  
22 timeliness requirement; they have to be

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 analyzed within a certain amount of time.

2 And they didn't, and they  
3 essentially rigged the record to make it look  
4 like they did.

5 MEMBER FIELD: But your evidence  
6 to believe that the data was reliable was  
7 based mostly on the QA program they had in  
8 place? Or the spikes? I'm just trying to  
9 figure out what's the primary evidence you're  
10 using to, I guess, convince yourself and  
11 others that the program was reliable?

12 DR. GLOVER: So the only thing  
13 that we found where they basically caused this  
14 problem, that they were doing, they had  
15 separate facilities for doing a separate  
16 laboratory.

17 It was not intermixed. It was a  
18 non-radiological facility where they did this  
19 kind of bioassay -- not bioassay but  
20 environmental measurements.

21 You see evidence of the fraud that  
22 was related to that. All of the reports, all

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 of the audits, you know, because you would  
2 check, you know, with the sample, you would go  
3 back to the counter data and say, okay, what  
4 does my counter have to say? What did this  
5 sample look like when it was counted? Does  
6 that, is that something I can relate back to  
7 the sample?

8 Now the Omenn Report is very  
9 clear, that they say it would take 50 man-  
10 years to go through all of the stuff.

11 It is, you know, from, they looked  
12 at '83, to '89, a tremendous amount of work.  
13 They selected some samples. They had DOE, the  
14 Radiological and Environmental Sciences Lab,  
15 RESL, come up from Idaho.

16 They also conducted, and they also  
17 report that, you know, they don't see anywhere  
18 where they've got this falsification. They  
19 had a QC program in place, US Testing had its  
20 own internal standards.

21 PNNL was providing them blind  
22 samples. Which, as the petitioner reported

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 out, there was some americium deviations.  
2 They had some MDA issues.

3 But not where you're seeing, it  
4 just doesn't -- there's nothing there. It's  
5 proving the negative. But we found nothing  
6 that can corroborate it.

7 CHAIRMAN MELIUS: Jim.

8 MEMBER LOCKEY: Just to follow up  
9 on Bill's question, in the non-radiology lab,  
10 was there any evidence of actual falsification  
11 of data, or was it more quality control, lack  
12 -- was it a procedure problem or were they  
13 actually falsifying data?

14 DR. GLOVER: There was some  
15 discussion of peak shaving, where they were  
16 manipulating chromatography data.

17 And so, there was some appearance  
18 that there was some actual falsification of  
19 data.

20 CHAIRMAN MELIUS: And then, in  
21 addition, there was apparently, at least as I  
22 read it, false reporting of their QAQC methods

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 so that it sort of, essentially covered up  
2 what they were doing.

3 I mean, dioxin sampling is  
4 complicated and requires a lot of QAQC samples  
5 to keep it, maintaining it right. And so  
6 that's one reason it is so expensive to do.

7 And this time there's obviously a  
8 lot of it going on and a fair amount of  
9 competition for doing this. Because I worked  
10 at the State Health Department down in New  
11 York and we were doing a lot of dioxin work at  
12 the time.

13 And so it's --

14 MEMBER LOCKEY: And you're  
15 counting on the lab to do it correctly.

16 CHAIRMAN MELIUS: Right. And  
17 there are a number that are trying to get into  
18 the business and so forth. And I don't know  
19 the details on this problem, but again, it's  
20 that.

21 And certainly in the -- looking on  
22 page 9 of your report, there certainly were

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 some concerns raised about whether these  
2 problems also carried over to the Richland Lab  
3 and other types of samples with that.

4 I think, as Sam says, this is all  
5 a very hard situation to evaluate, because  
6 you're trying to, again, prove the negative,  
7 and it's difficult.

8 Other people, Board Members on the  
9 phone have any questions?

10 MEMBER ZIEMER: I have no  
11 questions. This is Ziemer.

12 CHAIRMAN MELIUS: Okay. Brad?

13 MEMBER CLAWSON: This is Brad. I  
14 was just involved, I was involved with some of  
15 the interviews that were held up there at  
16 Hanford, and you know, this is what came out  
17 of some of the key people who were involved  
18 with this.

19 It just kind of overflows from  
20 there, at a facility that they found no  
21 evidence of anything at Hanford.

22 CHAIRMAN MELIUS: Okay, any other

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealgross.com](http://www.nealgross.com)

1 Board Members? If not, I'd like to hear from  
2 the -- if the petitioners wish to speak?

3 MR. FOULDES: This is Tom Fouldes,  
4 F-o-u-l-d-e-s, and I'm the counsel for the  
5 claimant, [identifying information redacted],  
6 who is the petitioner on SEC-155.

7 And just in the way of a few  
8 general comments, before I get into details,  
9 there is, in some of the written interviews  
10 that were obtained by the Environmental  
11 Protection Agency, which led to the  
12 disqualification of UST to do any further  
13 testing in any federal facility, these  
14 interviews concern activities in 1987, '88,  
15 and they, some of them, some of the comments  
16 are information that relates directly to  
17 activities at the Richland Testing facility,  
18 as distinguished from the other facility run  
19 by UST in Hoboken, New Jersey.

20 But there's no question that a  
21 review of these interviews, which I hope the  
22 Advisory Board has an opportunity to go over,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 implicates fraudulent activities in the  
2 testing of samples at Richland.

3           Okay, now I'll put that aside.  
4 And of course it is curious, it's somewhat of  
5 a contradiction that Battelle, after first  
6 suing UST for fraud, following the disclosures  
7 by EPA, and eventually that suit was resolved  
8 with a guilty finding on behalf of UST.

9           But then when it came to determine  
10 whether or not the pedigree of this data that  
11 was developed over the years '87, '88, '89 was  
12 adequate, US Battelle managed to come up with  
13 a finding in its studies and some of which are  
14 listed in the report to the Board from NIOSH,  
15 that basically the data was reliable.

16           And of course, obviously that's in  
17 total contradiction to the lawsuit that was  
18 brought by Battelle.

19           But leaving that now, and going to  
20 the presentation provided by NIOSH, they do  
21 have various reports that were created by  
22 Battelle, which understandably is in a sense

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1     trying to make sure that they kind of -- they  
2     have the basic contractual responsibility for  
3     this testing, and so it's no surprise that  
4     their retrospective studies show that  
5     basically it was reliable.

6             But now, also, though, however,  
7     the NIOSH, and correct me if I'm wrong,  
8     because I could have missed this. We didn't  
9     get the announcement of this hearing until  
10    late last week, and it wasn't until I got back  
11    out of town early this week, that I had an  
12    opportunity to go through it.

13            But what I have seen so far is  
14    that NIOSH has presented, as I said, the audit  
15    is really done by Battelle or for Battelle.

16    And then also, however, an audit that was done  
17    for them was by the University of Washington.

18    And the University of Washington examination  
19    was by -- they appointed, they engaged, well,  
20    first of all, it was the University of  
21    Washington Department of Public Health and  
22    Community Medicine and they engaged the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 service of a biostatistician, a Gerald van  
2 Belle, and then an Associate Professor, Dr.  
3 Paulman, who was Professor of Environmental  
4 Chemistry.

5 And Dr. Michael O'Brien, a Health  
6 Physicist. And I'm not suggesting that these  
7 were not good people, except they didn't have  
8 the same degree of specialization that was  
9 done in another study, which I do not believe  
10 has been presented to the Board.

11 And that was an oversight of the  
12 US Testing Company, analytical procedures and  
13 protocol. And that was done by, signed off by  
14 a B.C. Woods of the Environmental Protection  
15 Agency and Laboratory, Region 10.

16 And Mr. L.C. Spearin of Department  
17 of Ecology, Quality Assurance Section of the  
18 State of Washington. A Mr. Alvin of the  
19 Washington Department of Health, and Mr.  
20 Kasch, K-a-s-c-h, who is with the Department  
21 of Energy itself. They went forward and  
22 engaged some specialist, L.M. Albin, who -- he

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 was from the Health and Radiation Protection  
2 Division.

3 MR. KATZ: Excuse me, Mr. Fouldes,  
4 if you would please, the last couple of  
5 sentences you said were almost inaudible. But  
6 much of your talk, you're very hard to hear.

7 I wonder if you're on a speaker  
8 phone or --

9 MR. FOULDES: Okay, well, I can  
10 just briefly wrap this up. He was a  
11 radiological health expert.

12 And then there was two more, from  
13 some other laboratories, that were specialists  
14 in radiological bioassay and radiation  
15 counting.

16 And they, in their report,  
17 Appendix F of their report contains numerous  
18 references, which I won't take the Board's  
19 time to go through, but they all relate to the  
20 lack of adequacy in procedures and in testing  
21 protocols that were being utilized to spite  
22 the testing company, US Testing, on bioassay

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 samples and it would seem impossible if -- to  
2 anyone thoroughly reviewing the very detailed  
3 report in Appendix F, to conclude that the  
4 testing results done by this laboratory on  
5 bioassay, and in this case particularly, this  
6 particular petitioner is relying on the  
7 bioassay results from his fecal samples.

8 And there does not appear to be  
9 any basis of reliability suggested in this  
10 detailed study that I referenced, made by  
11 these various names I've mentioned. And that  
12 concludes my remarks.

13 CHAIRMAN MELIUS: Thank you, Mr.  
14 Fouldes. Sam, do you have any response? I  
15 don't know, it wasn't clear to me which  
16 reports were included in your review?

17 DR. GLOVER: Obviously, there were  
18 many, we looked at many things. We looked at  
19 those EPA documents that the Office of  
20 Inspector General had. We -- I can't remember  
21 which ones, I looked at so many.

22 CHAIRMAN MELIUS: Okay.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 DR. GLOVER: We do agree with what  
2 he says on the environmental stuff. We agree  
3 that US Testing, in Richland, they were for  
4 part of this. So it wasn't just in Hoboken,  
5 but it was the non-radiological samples.

6 CHAIRMAN MELIUS: Right. Jim.

7 MEMBER LOCKEY: Sam, Gil Omenn did  
8 which review? Gil Omenn, is that the Omenn  
9 that you were --

10 DR. GLOVER: The Omenn Report?

11 MEMBER LOCKEY: Yes.

12 DR. GLOVER: And we actually spoke  
13 with several members of his -- who were on  
14 that, as part of this review.

15 MEMBER LOCKEY: Is Gil, I don't  
16 know if Gil -- is he still alive? Did you  
17 speak with him?

18 CHAIRMAN MELIUS: Yes, he's --

19 DR. GLOVER: I'd have to --

20 CHAIRMAN MELIUS: I think he's at  
21 University of Michigan now?

22 MEMBER LOCKEY: I'm not sure, I'm

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 not sure where he is right now. I asked is --

2 CHAIRMAN MELIUS: He's no longer  
3 Dean at Seattle.

4 MEMBER LOCKEY: No.

5 CHAIRMAN MELIUS: I believe he's  
6 in Michigan, isn't he?

7 MEMBER LOCKEY: I was wondering  
8 whether, I was just curious whether you  
9 actually spoke with him or not about it?

10 DR. GLOVER: I think with  
11 availability, we spoke to two other members.  
12 I don't think we got to speak with him. I was  
13 actually, I think, at Sandia the week that we  
14 were able to talk to him. So I didn't get to  
15 participate.

16 MR. VALERO: Hello?

17 CHAIRMAN MELIUS: Yes.

18 MR. VALERO: Hi, I'm sorry, my  
19 name is Oscar Valero and I'm a petitioner at  
20 the Hanford site.

21 CHAIRMAN MELIUS: Okay.

22 MR. VALERO: I temporarily got

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 disconnected but I'm back online.

2 CHAIRMAN MELIUS: Okay, did you  
3 wish to speak? I understood Mr. Fouldes to  
4 say that he was speaking on your behalf, so I  
5 didn't know if you, do you wish to speak in  
6 addition to him?

7 MR. VALERO: Yes, I do, sir.

8 CHAIRMAN MELIUS: Okay, then go  
9 ahead.

10 MR. VALERO: All right, and I'll  
11 make this brief, gentlemen and ladies. I do  
12 have a prepared statement, so I'm just going  
13 to read from the statement.

14 CHAIRMAN MELIUS: Fine, thank you.

15 MR. VALERO: Thank you. As I  
16 said, my name is Oscar Valero, I'm from the  
17 Hanford site. Let me first say, thank you for  
18 providing me with this opportunity.

19 I understand this is a scientific-  
20 based information, but let me also appeal to  
21 the sentiments of your heart and that you will  
22 do the righteous thing and your actions will

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 right a wrong. The actions of deceit and  
2 ultimate betrayal of trust, due to the  
3 unethical acts for personal gain, have never  
4 been so blatant.

5 A true disregard for my wellbeing  
6 and threatening my life and the livelihood of  
7 my family and numerous other victims of this  
8 tragedy.

9 We, as courageous Americans, have  
10 paid a high price for our service. We've  
11 incurred disabling and/or fatal illnesses as a  
12 result of exposure to radiation chemicals and  
13 other hazards that are unique to the weapons  
14 production and testing.

15 I ask that you adopt this as a key  
16 petition and justify the award of full medical  
17 and monetary compensation for the victims of  
18 this tragedy, due to the neglectful actions,  
19 again, for personal gain, by US Testing. Of  
20 which, none of this should have occurred, if  
21 the company had not been engulfed by greed.

22 The evidence you seek has been

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 previously outlined in various documents.  
2 These reference to EPA referral memoranda,  
3 dated April 4, 1989, which is further  
4 substantiated by supporting data, based on  
5 interviews of numerous US Testing personnel,  
6 conducted by the Office of Inspector General  
7 Office of Investigations dated June 6, 1989.

8           The facts are many, guys, but for  
9 the sake of time, here are two. Number one,  
10 the SEC report, page 32 of 58, states "NIOSH  
11 did not find bioassay data produced by US  
12 Testing to have been effective."

13           However, the action referral  
14 memorandum, item 9, states the contract was  
15 lab-specific. Neither lab, whether it's  
16 Hanford or the one in Hoboken, New Jersey, was  
17 listed as an alternate site to perform work on  
18 a contract basis.

19           Based on the Office of Inspector  
20 General, the interview they conducted also  
21 cites numerous chain of custody and protocol  
22 violations. Second fact, the SEC report, page

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 29 of 58, states: "sample card and final  
2 results were not found." And: "incomplete  
3 record for one sample result."

4 To me this lends credence to  
5 incomplete, inaccurate record keeping, and  
6 really does cast doubt on accuracy of samples.

7 The two above statements are from  
8 NIOSH themselves. The Office of the Inspector  
9 General from their interview states: "two  
10 separate log books were kept, they were  
11 maintained."

12 Other facts still remain, such as  
13 cut and paste activities. As I mentioned  
14 before, the two separate log books, backdating  
15 of sample results.

16 Doctoring samples and the use of  
17 illegal drugs by management of US Testing.  
18 Ladies and gentlemen, these are the facts and  
19 many more can be found in the Office of  
20 Inspector General report dated June 6, 1989,  
21 which I'm sure you have.

22 These interviews are first-hand

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 witness accounts, conducted by credible  
2 people, the Inspector General's office, who  
3 took an oath to uphold the law.

4 The outcome of their investigation  
5 substantiates the facts that create and  
6 establish reasonable doubt and question the  
7 credibility of the US Testing, which is  
8 further supported by the EPA referral  
9 memorandum fact section.

10 Because of the unscrupulous  
11 actions of US Testing, many people have  
12 incurred unjust suffering. To rely on an  
13 organization, complete strangers, that have  
14 the responsibility to analyze samples and you  
15 entrust them to be honest, because they have  
16 the educational knowledge and experience, is  
17 where my trust was.

18 Ladies and gentlemen, pardon the  
19 pause, but this is difficult for me. You say  
20 you want facts? Here are some more  
21 undisputable facts.

22 I have Stage 3 stomach cancer.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Two-thirds of my stomach were surgically  
2 removed, 50 percent of my esophagus was  
3 surgically removed.

4 I have irreparable damage to the  
5 left side of my heart, due to radiation  
6 treatments. I have incurred financial  
7 hardship.

8 I live with these physical  
9 limitations. My family and I bear emotional  
10 scars and psychological trauma. Our lives  
11 have been affected and changed forever.

12 All these are facts that have been  
13 forcibly and permanently etched into my life.

14 One can choose to dispute the evidence before  
15 you, but science can only presume facts based  
16 on data analysis and can be manipulated to  
17 support the desired outcome.

18 No data analysis or computer  
19 programs can dispute the above-mentioned  
20 facts. But one main ingredient is missing,  
21 one that we tend to sometimes overlook, and  
22 it's called ethics. In this case, it's

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 economics over ethics. These people whom I  
2 entrusted to analyze these samples and provide  
3 honest results, failed in their ethics.

4 Because they knowingly and  
5 willfully were aware of what they were doing.

6 They just didn't care, and, in turn, placed  
7 my life and my family's livelihood in  
8 jeopardy, for their own self gain, for their  
9 greed.

10 NIOSH further states on page 46 of  
11 the handout, NIOSH, on no part of the Class,  
12 which it cannot estimate radiation doses with  
13 sufficient accuracy.

14 I must ask, how can an estimate be  
15 accurate when I myself have had three  
16 different dose reconstructions with three  
17 different results?

18 I question US Testing protocols,  
19 ethics and methodology, which is why they were  
20 terminated, such as higher management's use of  
21 illegal drugs on company time and premises.  
22 You'll find this information on those reports

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 that I mentioned above.

2           These people were tasked with  
3 making major decisions, but were under the  
4 influence at the time certain critical  
5 decisions were made.

6           Again, I must ask, where is the  
7 credibility in this? Where are the ethics?  
8 Ladies and gentlemen, the decay of the human  
9 spirit for personal company gain has never  
10 been so evident, as it is with this company  
11 that I once trusted.

12           In essence, in my case, I have  
13 been left raped, stripped from my being,  
14 betrayed by those I once trusted.

15           I ask that you, right or wrong,  
16 this is your opportunity to make a positive  
17 difference in people's lives. The power to do  
18 the righteous thing is, in the name of  
19 humanity and justice, in your hands.

20           Don't turn your back on these  
21 courageous Americans, who defended our  
22 national security for the freedoms we enjoy.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           We     didn't     use     bullets     and  
2     missiles, but we worked in glove boxes in  
3     high-hazard environments such as chemical and  
4     radiological processes.

5           In closing, just let me reiterate.

6     I appeal to your consciousness and sentiments  
7     of your heart.     Because no one should go  
8     through what these families and I have gone  
9     through.

10           And to approve this SEC petition,  
11     to compensate some of us, those courageous  
12     Americans who have unnecessarily suffered and  
13     those who have died.

14           This would be the righteous thing  
15     to do.     And I thank you for your time.

16           CHAIRMAN MELIUS:     Thank you.     Any  
17     further questions or comments from Board  
18     Members?

19           (No response.)

20           CHAIRMAN MELIUS:     Any suggestions  
21     on steps forward?     I think one of my questions  
22     would be as to whether the reviews looked at

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 this from the perspective, not of the NIOSH  
2 review, but the other reviews on the  
3 laboratory, were they looked at from a  
4 perspective of whether these were reliable in  
5 terms of environmental monitoring or workplace  
6 monitoring, as opposed to dose reconstruction,  
7 which might have a different criteria to it, I  
8 don't know.

9 Also, I think there's an awful lot  
10 of information here, and though I think NIOSH  
11 did a good job of summarizing it, I think our  
12 past practice has been, in the situation, to  
13 at least do some initial review on this  
14 information, before trying to reach a  
15 conclusion.

16 So one step would be to refer it  
17 to the Hanford Work Group for further  
18 evaluation. Is that --

19 MEMBER LOCKEY: I concur with  
20 that, I think that's a good idea.

21 MR. VALERO: If I may, just one  
22 quick 30-second statement?

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:    If it's quick,  
2     please.

3                   MR. VALERO:    Yes, it is.    Again,  
4     my name is Oscar Valero from the Hanford site.

5     I want to make sure that the Board has access  
6     to and has received and/or reviewed the  
7     following documents:

8                   Action Referral Memorandum from  
9     the US EPA, April 4, 1989.   Both interviews,  
10    two interviews from the Office of Inspector  
11    General, the Office of Investigations.

12                   One dated August 15, 1989, and one  
13    dated June 5, 1989.   Thank you.

14                   CHAIRMAN MELIUS:   Okay.   Go ahead,  
15    Mark.

16                   MEMBER GRIFFON:   I was just going  
17    to make a motion that the Board refer this to  
18    the Hanford Work Group for further review.

19                   MEMBER LOCKEY:   I'll second that.

20                   CHAIRMAN MELIUS:   Second from Jim  
21    Lockey.   Any further discussion?

22                   (No response.)

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:  If not, all in  
2 favor, say aye.

3                   (Chorus of ayes.)

4                   CHAIRMAN MELIUS:  Opposed?

5                   (No response.)

6                   CHAIRMAN MELIUS:        Okay, good,  
7 thank you.  Next item of business, at 3:15 we  
8 need to do the GE, and I believe we need to do  
9 that on time, since the petitioner may be on  
10 the line for that.

11                   Mark, are you ready to do your two  
12 reports?  Okay, so Mark, I don't know which  
13 you want to do first.  We have LANL and the  
14 Dose Reconstruction Review Group, so we'll let  
15 you choose.

16                   MR. KATZ:  Ms. Beach and Ms. Munn  
17 can come back to the table.  I don't see -- is  
18 Ms. Munn out of the room?  Could someone maybe  
19 -- thank you, Jenny.

20                   MEMBER GRIFFON:  I can do the Dose  
21 Reconstruction Subcommittee update first.  
22 They'll both be quick updates.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   The           Dose           Reconstruction  
2 Subcommittee had a meeting recently in  
3 Cincinnati and it was actually more of a field  
4 trip.

5                   We took a field trip to the ORAU,  
6 O-R-A-U offices. And the intent of the field  
7 trip was to get a little better understanding  
8 of the QAQC program that ORAU and NIOSH  
9 undergo in their dose reconstruction program.

10                  And just sort of walk it through  
11 from start to finish. And the notion of the  
12 trip was to have a meeting at ORAU and then to  
13 go across town and visit the NIOSH offices and  
14 see what they do on their side of the shop.

15                  Because it took a little longer  
16 than we anticipated, we ended up spending the  
17 whole time at ORAU. We did get an in-depth  
18 presentation from the ORAU folks on their QAQC  
19 program and the procedures they go through in  
20 the dose reconstruction process.

21                  And I think most importantly, we  
22 also got to go out on the floor, talk to a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 couple of the staff, including a data entry  
2 supervisor and actually oversee some of the  
3 data entry work that was ongoing.

4 I think, you know, part of the  
5 question there was our concern about some of  
6 the QAQC findings that we had in the first 100  
7 cases that we reviewed, some of them involved  
8 sort of keying errors or data entry.

9 At least it seems to be related to  
10 sort of data entry questions, so we wanted to  
11 observe the process and see the working  
12 conditions, see the sort of quality of data  
13 that the data entry folks had to deal with, in  
14 terms of looking at the original hard copy  
15 data and transferring it into a spreadsheet  
16 format and that was very useful.

17 Just to get that firsthand  
18 observation. We also, the other useful part  
19 of the trip was that we were able to sort of  
20 see the state of the quality assurance/quality  
21 control program as it exists now.

22 And I think part of the challenge

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 for the Subcommittee, in our review, has been  
2 since we're lagging the program a little bit,  
3 we're finding errors that, in many cases, we  
4 believe some of the updates that NIOSH has  
5 done have corrected or, you know, will  
6 minimize many of those errors.

7           So we sort of -- we have some  
8 further assessment to do with this, but it was  
9 at least some reassurance that some of the  
10 comments, even though we haven't ever wrapped  
11 up our first 100 cases report officially, you  
12 know, it's clear that our work on this Board  
13 is affecting the program, in a good way, in  
14 terms of NIOSH actually making several of  
15 these changes.

16           Some examples, I guess a couple of  
17 the most obvious examples were ways in which  
18 they've modified their approach from a  
19 computer standpoint and from a software  
20 standpoint to allow -- or avoid, I should say,  
21 these, what we were referring to as cut and  
22 paste errors.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           And basically some of the ways  
2 they've done that is to actually avoid, you  
3 know, not making the dose reconstructor have  
4 to take data from one spreadsheet, copy it and  
5 put it into something else. It's more  
6 automated software now, so the transfer is in  
7 the program, so that avoids these sort of  
8 keying errors or cut and paste errors.

9           So some of the automation stuff we  
10 were able to observe. And, like I said,  
11 because we're lagging on our case reviews, a  
12 lot of times we're looking at dose  
13 reconstructions that were done in the earlier  
14 years still.

15           We're not able to see these  
16 changes that have taken place. So that was  
17 useful. We do plan on following up and seeing  
18 the NIOSH side of the system to sort of round  
19 out how, once the cases go from ORAU over to  
20 the NIOSH side, what does NIOSH do in terms of  
21 its Quality Assurance Program?

22           And I think we scheduled that, I'm

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 trying to remember the date, in July sometime.

2 MR. KATZ: We have a, I think we  
3 scheduled a Dose Reconstruction meeting for  
4 July 15th.

5 MEMBER GRIFFON: Okay, maybe we  
6 were --

7 MR. KATZ: So, maybe we were  
8 thinking about piggybacking on that?

9 MEMBER GRIFFON: Yes, there was  
10 some discussion --

11 MR. KATZ: Because it's a NIOSH  
12 facility.

13 MEMBER GRIFFON: Okay, so we have  
14 a meeting scheduled for July 15th. But I  
15 think we did, we did all commit, when we were  
16 there, to doing a follow up on-site meeting at  
17 NIOSH, a walk-through at the NIOSH facility.

18 So that's sort of just a status  
19 update. The rest of our ongoing case review  
20 work, I think, is still standing since the  
21 last Board Meeting. I don't think we have any  
22 update on that front.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:    Mark, and I may  
2    have missed this.    But the in-depth reviews,  
3    what did we call them --

4                   MEMBER GRIFFON:    Oh, the blind?

5                   CHAIRMAN MELIUS:    Blind reviews,  
6    yes.

7                   MEMBER GRIFFON:    Yes.

8                   CHAIRMAN    MELIUS:            What's    the  
9    status on that?

10                  MEMBER    GRIFFON:            The    blind  
11    reviews, the status is sort of, I mean, SC&A  
12    has completed, I think we only asked them to  
13    do two blind reviews.

14                  We have not brought those up in  
15    our Subcommittee meeting, but we can.    We may  
16    want to prioritize those and if, you know,  
17    probably something we should do, because we  
18    talked about possibly doing more, but we  
19    wanted to look at two as an initial sample, to  
20    see if it was a fruitful effort.

21                  CHAIRMAN    MELIUS:            I'm    just  
22    thinking that, one, it's been a long time, and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 we talked about these for a long time. So, I  
2 think we need to assess how useful they are  
3 and whether a sample, how much a sample of two  
4 can tell us. I think it can tell us  
5 something.

6 Secondly, in the context of the  
7 ten-year review and so forth, is it time for  
8 us to think about how we go about doing the  
9 dose reconstruction reviews and to what extent  
10 those, you know, we might do more blind  
11 reviews or some other changes and so forth.

12 So I think it would be useful if  
13 the Subcommittee could --

14 MEMBER GRIFFON: Yes, and we, I  
15 will commit to putting that on our next  
16 agenda. I think that's a -- I think it's just  
17 been overlooked because we were so behind on  
18 old matrices that we kind of just kept  
19 plugging away at the old matrices.

20 But I agree that it should be  
21 added to our next matrix, so that will be  
22 done.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 CHAIRMAN MELIUS: Okay, good.

2 Anybody else have questions for Mark?

3 (No response.)

4 CHAIRMAN MELIUS: Board Members on  
5 the phone have questions?

6 MEMBER ZIEMER: No questions.

7 CHAIRMAN MELIUS: Okay, thanks.

8 Okay, do you want to go on to LANL?

9 MEMBER GRIFFON: Sure. LANL will  
10 be a quick one. I see Joe Fitzgerald is here  
11 if people want a real, more in depth update.

12 But really it's sort of, we're  
13 plugging away on the last years of the SEC  
14 petition there. This has been taken in  
15 pieces, as people remember.

16 And we're in the farther-out  
17 years, I'm forgetting the dates right now, but  
18 we had a meeting recently, early May, I  
19 believe.

20 And we continued along the same  
21 matrix. We don't have any real recommendation  
22 from the Work Group at this point.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           I think if we, we do plan to  
2 schedule another Work Group Meeting. I  
3 haven't set a date yet because there were some  
4 significant action items from NIOSH and some  
5 of it is pretty labor-intensive and they might  
6 have competing priorities. So we didn't want  
7 to set a date yet for a follow-up.

8           But the work continues on the Work  
9 Group.

10           CHAIRMAN MELIUS: I was just  
11 looking at their report, and it says, "respond  
12 to Work Group issues to be determined."

13           (Laughter.)

14           CHAIRMAN MELIUS: That's not  
15 helpful for this context.

16           MR. HINNEFELD: This is Stu. I  
17 don't think I've determined it since I got  
18 here, so we'll have to provide updated  
19 information.

20           CHAIRMAN MELIUS: Yes, could you?  
21 This is the only time we've asked you.

22           MEMBER GRIFFON: After the LANL

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Work Group meeting, as is my custom at these  
2 meetings usually, anyway, I did update the  
3 matrix in real time and we forwarded it  
4 around.

5 So that should be able to inform  
6 NIOSH on what the outstanding actions are.

7 CHAIRMAN MELIUS: Okay. So the  
8 issues don't need to be determined, just the  
9 actions? Timing of the actions.

10 MEMBER GRIFFON: Timing, yes.

11 CHAIRMAN MELIUS: Okay, do that.  
12 Any Board Members have questions for Mark,  
13 including those on the phone?

14 (No response.)

15 CHAIRMAN MELIUS: Okay. One other  
16 issue: first of all, let's talk a little bit  
17 about schedule. We have a GE update we'll do  
18 at 3:25 with the petitioner.

19 We have a Weldon Spring update at  
20 4:45, and again we should do that at that  
21 time, simply because the petitioners will be  
22 listening in.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           And then the petitioners will be  
2 probably talking in the public comment period  
3 on that. We got a communication from them;  
4 due to the weather, they are not planning to  
5 come into the meeting, but will be commenting  
6 by phone for that.

7           Tomorrow morning we have a report  
8 on the Quality of Science Report, as part of  
9 the ten-year review from Doug Daniels. That's  
10 scheduled for 8:30.

11           We're hoping that he makes in  
12 tonight from, I forget where he's doing a --  
13 involved in a data capture, I believe, for  
14 Chicago, okay.

15           So he can just hop on a river  
16 boat. The river is flowing pretty well, so it  
17 should be quick. But hopefully he'll make it  
18 down tonight. We'll do that. And then my  
19 plan would be that we would then be able to  
20 finish up at 9:30 tomorrow morning.

21           So, if that helps you with your  
22 plans. I don't think we'll have any other

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Board actions to take after that. So after  
2 Doug's presentation and questions, then we  
3 will plan on adjourning the meeting.

4 So if that helps you with, people  
5 with their travel plans and so forth; I hope  
6 it does.

7 Though with airline schedules, I  
8 suspect we're all pretty much locked in to  
9 what we're doing. One other item that we  
10 should talk about now or, if you prefer, there  
11 should be some time after the GE session, so  
12 that should not be a long session, is how we  
13 want to handle the ten-year review and our  
14 communications on that. I think Lew laid out  
15 sort of the schedule for that.

16 And that there will be other  
17 opportunity to comment as this evolves, both  
18 on the individual reports, as well as, I think  
19 NIOSH has plans for actions and follow-up.

20 And I think, in particular, I  
21 think it's an issue of how we feel in terms of  
22 what we think and do we want to make

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 recommendations in terms of prioritizing  
2 recommendations. Or, I guess, saying that we  
3 disagree with the recommendations, don't think  
4 they should be considered and do that.

5 Now it's a long list of  
6 recommendations, and so it's not easy to go  
7 through and there's some repetition there.  
8 And, at the same time, I think there's a  
9 number of recommendations that some  
10 prioritization makes sense, given just the  
11 scope of these, and so forth.

12 I just didn't know if people had  
13 thoughts on how we should approach that. Do  
14 we approach it as just individual Board  
15 Members commenting to Dr. Howard and to the  
16 Docket? Or do you want to try to do anything  
17 in a group fashion? And I don't have any  
18 great ideas on how to do it as a group  
19 fashion, because it's unwieldy.

20 MEMBER ZIEMER: Dr. Melius?

21 CHAIRMAN MELIUS: Yes, Dr. Ziemer?

22 MEMBER ZIEMER: Well, I'll just

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 start it off to get some ideas on the floor,  
2 because I think it's important that we have  
3 input.

4 But as a practical matter, these  
5 are a number of pretty thoughtful documents  
6 that contain a number of recommendations.

7 I think, in many cases, we might  
8 be able to, you know, go through and say, yes,  
9 we all agree with this, or whatever.

10 But, in terms of the timing, it  
11 seems to me it will be very difficult to  
12 systematically have the Board develop a  
13 consensus recommendation or agreements on  
14 particular items.

15 So, just as a practical matter, it  
16 just occurred to me that it might just be as  
17 valuable to have individual Board Members  
18 provide their comments.

19 This would allow two things. One,  
20 I think a more timely input to Dr. Wade, so  
21 that they can bring things to closure.

22 And, number two, it would not

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 necessarily require consensus. And, in fact,  
2 there may be a number of items where we don't  
3 necessarily agree with each other, either on  
4 the finding or the conclusion or the  
5 recommendation.

6 Why not just say, okay, provide  
7 your comments. Again, this is off the top of  
8 my head. I don't object to doing it as a  
9 Board, I'd be glad to do that.

10 But, it seems to me, that it's as  
11 important to get individual viewpoints on the  
12 record as well.

13 CHAIRMAN MELIUS: Yes. No, I  
14 would agree with you, Dr. Ziemer. I just sort  
15 of wanted to provide the opportunity. I think  
16 if there were, if people feel or a Board  
17 Member feels strongly about -- that they  
18 disagree, particularly with one of the  
19 priority recommendations. Or that they have,  
20 think that there's another recommendation that  
21 should be getting more serious consideration  
22 than was presented by Dr. Wade, that we should

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 -- one, obviously to make individual comments.

2 But even though there may not be agreement on  
3 the Board on a viewpoint or something, it  
4 sounds like there'd be some benefit to airing  
5 that and having some discussion of it.

6 I agree with you, on a practical  
7 level, it's going to be hard for us to respond  
8 as a group on these.

9 But if there were things that  
10 struck people from the presentation yesterday  
11 or after they thought about it or talked about  
12 it over lunch or breakfast or dinner or  
13 whatever, at least we'd have the opportunity.

14 Wanda is reaching for her -- it's  
15 sign that she's on the verge. So I'm going to  
16 stop talking here and see if Wanda does want  
17 to speak. Yes, she does, okay. Go ahead,  
18 Wanda.

19 MEMBER MUNN: It would seem  
20 logical that individuals would more likely be  
21 able to cast their perceptions as they wished  
22 by doing any comments individually directly to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Dr. Wade, rather than having the Board  
2 wordsmith them and perhaps dilute some major  
3 item that an individual might feel  
4 appropriate.

5 It would seem logical that if any  
6 of our Board Members had serious concerns with  
7 respect to the prioritization that Dr. Wade  
8 and his colleagues have already made on those  
9 points, that it would behoove us to bring  
10 those to your attention, as the Chair of the  
11 Board, and request that the Board perhaps  
12 visit that particular aspect, but not the  
13 individual comments that each of the Board  
14 Members might make.

15 CHAIRMAN MELIUS: What I was going  
16 to -- I think that's a good idea. And it's  
17 common you and I have similar viewpoints on  
18 many things. And what I thought is that these  
19 will be posted and maybe we'll charge our DFO  
20 with making sure that, I think to the extent  
21 that, as we submit these, that these get  
22 circulated to all of the other Board Members,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 so we keep up. And then I will work to  
2 identify issues that -- either where there's  
3 disagreement or where it might warrant further  
4 discussion by the Board for our Board  
5 conference call.

6 And again, it would just be trying  
7 to elaborate and maybe fine tune. Because I  
8 think, as Lew Wade pointed out on behalf of  
9 Dr. Howard, I think NIOSH really is looking  
10 for input on this and involvement of the  
11 Board.

12 And certainly we're going to be  
13 involved and affected by the implementation of  
14 these recommendations as they go forward. And  
15 some adjustments in how we work and how NIOSH  
16 works and our activities.

17 So, it's as much to encourage  
18 involvement in this process and I think we'll  
19 do as you suggested, Wanda, I think would be  
20 probably the best way of going forward.

21 I just didn't know if anybody had  
22 already noticed things that were concerning to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1     them or, you know, sort of, these are big  
2     reports and to do it out of context and to do  
3     it quickly is difficult. Mark, you weren't  
4     here yesterday to go through, either.

5                   MEMBER GRIFFON: But I was on the  
6     phone on this part of it. The only -- I agree  
7     with you and Wanda on most of this.

8                   The one possible exception I would  
9     make is, it may be useful for the Dose  
10    Reconstruction Subcommittee to weigh in on the  
11    dose reconstruction recommendations. I'm  
12    looking down them and I'm not sure they're --  
13    I think there might be quite a bit of  
14    agreement and it might be actually very  
15    consistent with our first 100 cases report on  
16    several fronts.

17                   And, you know, it might be useful  
18    for us to consider those and try to close out  
19    our first 100 cases report and submit them  
20    back to the Board, and that way we could weigh  
21    in on that front.

22                   So the Secretary has a group. You

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 know, other items that are reported on, I  
2 think it would make more sense to weigh in  
3 individually.

4 But on that front, I thought it  
5 might be, since we have a body of work that  
6 we've done in that area, it might be useful to  
7 weigh in as a whole.

8 CHAIRMAN MELIUS: You know, I  
9 think that would be excellent. And if you're  
10 doing a meeting before our next Board call,  
11 and certainly there's this recommendation on  
12 should NIOSH do away with the over- and under-  
13 estimates.

14 And I think that's the kind of  
15 thing that your Subcommittee, you know,  
16 probably is in the best position to comment  
17 on. So, that's an excellent idea. Henry.

18 MEMBER ANDERSON: I was going to  
19 push it back to that Committee too. But I  
20 think the other thing that would be worth  
21 doing would be to have -- there's a lot of  
22 recommendations here, and the likelihood that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 they'll all be moved on is probably remote.  
2 So, it might -- one approach would be, rather  
3 than to comment you like something or not,  
4 which of these do we as a, we may want to  
5 discuss, as a Board do we feel are the most  
6 important that ought to get the priority to  
7 move forward?

8 Now I don't know, maybe NIOSH is  
9 going to act on all of those, but there's a  
10 lot of lists there that, in the shorter term,  
11 we may want to say, like the over- and under-,  
12 this is an area that's going to take a lot of  
13 work. It ought to be worked on. And others,  
14 while they're important, could wait.

15 CHAIRMAN MELIUS: Yes, and I  
16 think, sort of the, what they you call it?  
17 The target list or the straw person or  
18 whatever, for review, was Lew's list of  
19 priorities and I think one thing it will help  
20 clarify that.

21 I think I've got them all marked  
22 off, but I might have missed one, but I'll

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 work with Ted, because we have a number of  
2 Board Members who are absent. And I think we  
3 also need to communicate this issue and a  
4 number of other issues that have come up with  
5 them, before the next Board Meeting.

6 So I think, and we'll copy the  
7 entire Board on that, so that they, you have  
8 this list and so forth and move forward. But  
9 that's exactly what I had in mind.

10 I just want to make sure that if  
11 we disagree with Lew's list, positive or  
12 negatively, in terms of making a  
13 recommendation, that we do that, and now Lew's  
14 is going to meet, has a meeting with -- an  
15 internal meeting, I believe in a couple of  
16 weeks.

17 And, again, report back to us if  
18 there are changes in the priorities based on  
19 that meeting or questions about how to  
20 implement or something.

21 It's an ongoing, iterative process  
22 and there's no finalization, it's just making

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 sure that I think we stay engaged with it.

2 DR. WADE: If I may, even more  
3 important than the Wade list of priorities,  
4 will be the Howard list of priorities. And  
5 that will be available come the middle of  
6 June, and you'll have that before your next  
7 call. And you can react to that list as well.

8 CHAIRMAN MELIUS: Well, we're  
9 confident that Dr. Howard's list will be close  
10 to the esteemed Dr. Wade's list.

11 DR. WADE: The man is no fool.

12 (Laughter.)

13 CHAIRMAN MELIUS: Some of us may  
14 even suspect that Dr. Howard may have, just  
15 osmosis, sort of communicated some of these  
16 ideas, in terms of discussion, casual  
17 conversations over coffee.

18 Any other comments or suggestions  
19 on our ten-year effort?

20 (No response.)

21 CHAIRMAN MELIUS: Okay, why don't  
22 we take a break, half hour? 3:15 we'll do GE.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Again, I apologize, we'll probably be, I  
2 don't think it will necessarily take too long,  
3 and then we'll probably have another break.

4 (Whereupon, the above-entitled  
5 matter went off the record at 2:46 p.m. and  
6 resumed at 3:17 p.m.)

7 CHAIRMAN MELIUS: Okay, we will  
8 reconvene. The next item on our agenda is the  
9 GE Evendale SEC petition. And even though I'm  
10 listed here, I have drafted the distinguished  
11 LaVon Rutherford to do a summary of the  
12 changes to the SEC.

13 There's an amended Evaluation  
14 Report, I guess you'd call it. That's been  
15 done. It's got several changes in it, though.  
16 I think the bottom line is the same. I'll let  
17 LaVon talk briefly about what those changes  
18 were, and then I will speak to the Work Group  
19 review and what the Work Group believes should  
20 happen next.

21 MR. RUTHERFORD: We did issue a  
22 revised Evaluation Report for GE. The focus

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 of the revised Evaluation Report was to pull  
2 in all the information that we had uncovered  
3 from the time we initially issued Rev 0 of the  
4 report and pull that into this revision.

5 Some of the key things that were  
6 added in that report were just after we had  
7 issued Rev 0. We received some data, a  
8 significant amount of data, from General  
9 Electric, which included some external  
10 monitoring data. A very little internal  
11 monitoring data. But the monitoring data  
12 focused from the aircraft nuclear propulsion  
13 operations starting in the '50s, up through  
14 the 1970 period.

15 The report actually laid out where  
16 we determined that, even though we had this  
17 new data, that was identified, mainly external  
18 data, our feasibility finding was the same.

19 And the reasons behind that were  
20 tied to the personal monitoring data did not  
21 include identifiers. Identifiers such as  
22 location, job activities. We had a few that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 indicated locations, however, the majority of  
2 that data really did not provide specific job  
3 location, activities, to tie those individuals  
4 to that.

5 We also got a little additional  
6 information on the processes that were taking  
7 place during that time period. We updated the  
8 report to include that.

9 And some additional interviews  
10 that had occurred during the time period. And  
11 then we provided that all to the Work Group.  
12 There may have been one or two additional  
13 items, I can't remember.

14 And then we had the Work Group  
15 meeting that was a few weeks ago. You can  
16 take it from there or I can tell them what the  
17 results were.

18 CHAIRMAN MELIUS: No, I'll go on  
19 from there. I'll do that. But thank you,  
20 LaVon. The Work Group met by conference call  
21 a couple of weeks ago, and we discussed the  
22 revised report and had a fairly -- about an

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 hour's discussion with NIOSH staff and among  
2 ourselves, about the report.

3           And, while I don't think that the  
4 -- based on looking at the report and  
5 reviewing the new information, the new  
6 sampling data, exposure data, that I don't  
7 think the Board has any -- or the Work Group,  
8 excuse me, has any -- I think they basically  
9 agree with NIOSH's recommendation that doses  
10 cannot be reconstructed for those that worked  
11 in that part of the GE facility.

12           I think there's still some  
13 questions about the Class definition. Let me  
14 just add that Jim Lockey also joined us for  
15 that call, since he had expressed an interest  
16 earlier and been involved in the Board  
17 discussions on that.

18           So we agreed with the --

19           Whoever is on the line, could you  
20 please mute your phone, because we are hearing  
21 your background conversations. If you don't  
22 have a mute button, then do \*6. Ted has

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 taught me.

2                   And, okay, back on the track here.  
3 So the issue is the Class definition, which  
4 NIOSH was basically feeling that they did not  
5 have adequate information to be able to  
6 restrict that, so was recommending that  
7 everybody that worked in the facility during  
8 that time period should be included in the  
9 Class.

10                   I think the Work Group still had  
11 some concerns about that, and recommended we  
12 reached an agreement with NIOSH to go forward  
13 on some additional fact-finding.

14                   One is related. There was a list  
15 of, what appeared to be people that had worked  
16 in the radiological operations at the  
17 facility, that was referenced in the report.

18                   It may have been even two of them,  
19 I can't recall. And we were trying to  
20 understand that list and so forth. It  
21 appeared to be something that was used for,  
22 actually for a reunion or some sort of social

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 event involving those people.

2 But it was useful, it did have  
3 names and addresses and so we were trying to  
4 understand that, and particularly trying to  
5 understand how that compared with people that  
6 had applied for compensation and some of the  
7 other information that had been gathered from  
8 the interviews with people that had worked at  
9 the facility.

10 We also wanted some follow-up  
11 information on exactly how the buildings were  
12 set up and what were the restrictions on  
13 people going in.

14 Some of that information had been  
15 collected so early, before the more recent  
16 data and so forth had been collected, so there  
17 was, we thought it would be useful to go on  
18 and gather further information on that, so we  
19 better understood that information.

20 We're hesitating here, for those  
21 on the line, because there's a siren blowing  
22 in the background.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:     While Ted is  
2 out, why don't we continue a little bit? So  
3 we recommended that NIOSH go back and do  
4 further work, report back to the Work Group on  
5 that, and then the Work Group will probably  
6 meet again by conference call.

7                   And we may even be able to take  
8 this up at our July conference call. You  
9 know, again, depending on the information. I  
10 don't know, Paul, Josie or Jim Lockey, do you  
11 have anything to add to that?

12                  MEMBER LOCKEY:     No, I think you  
13 have summarized it.

14                  MEMBER ZIEMER:     Dr. Melius, one  
15 comment.

16                  CHAIRMAN MELIUS:    Yes, Paul.

17                  MEMBER ZIEMER:     Ziemer here. I  
18 had raised an issue of how we might consider  
19 having claimants self-identify their access to  
20 the work area. There was some discussion in  
21 the Work Group that maybe we could discuss  
22 these ideas with Rachel in DOL. I don't know

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 if that's been done or it's the proper time to  
2 do that, or will that be done sort of offline?

3 CHAIRMAN MELIUS: Well, this may  
4 be a time to at least raise it initially,  
5 since Rachel is in the audience and may want  
6 to comment. I don't know if NIOSH has spoken  
7 to her about it.

8 I'm going to let her -- she's  
9 actually at the microphone, Paul.

10 MS. LEITON: Yes, we had spoken a  
11 little bit about this with NIOSH and I'm not  
12 sure if I completely understand the idea --

13 MEMBER ZIEMER: Well, the idea is  
14 this. The starting point right now is that  
15 everyone who is on the GE site is a potential  
16 claimant.

17 MS. LEITON: Right.

18 MEMBER ZIEMER: So my idea was  
19 that there are certainly people who worked on  
20 that site, who know that they never were in  
21 the buildings of question.

22 So all you really, and there may

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 even be some honest people who worked for GE,  
2 I'm going to concede that. And, if so, why  
3 not ask claimants simply to provide an  
4 affidavit that they had access to or that they  
5 spent some time in the building in question?

6 I mean, we know where the work was  
7 done. The problem seems to be that we can't  
8 tell who might or might not have gone into  
9 those buildings.

10 Obviously, if a person isn't sure,  
11 you give them the benefit of the doubt. But  
12 there are many people who will know that they  
13 never went in or near those buildings, and why  
14 include them as claimants?

15 It's not fair to others who have  
16 legitimate claims. So my idea was, not to put  
17 the burden on NIOSH or on Department of Labor  
18 to place the people, but simply to ask them to  
19 affirm that they had spent time in the  
20 buildings in question.

21 MS. LEITON: Okay, let me just  
22 summarize and make sure I'm understanding.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 This is assuming that you made the Class  
2 limited to certain buildings.

3 Then when DOL went to verify  
4 employment, you're suggesting that we rely  
5 solely on what the employee says as placing  
6 them in the Class or not, assuming that those  
7 who weren't in the buildings are going to tell  
8 us they're not. Is that, am I getting that  
9 right?

10 MEMBER ZIEMER: Yes, and in the  
11 worst case, everybody lies to you and you're  
12 no worse off than you would be if you assumed  
13 everybody is in the cohort.

14 I'm saying, I would bet you  
15 there's a good fraction of honest people who  
16 worked for GE, who aren't going to make claims  
17 if they knew they weren't in that area.

18 MS. LEITON: In our experience,  
19 that's really just not the case.  
20 Unfortunately, I mean, I know that there's  
21 some honest people out there, but when the  
22 \$150,000 is on the line -- you know, we've got

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 a certain adjudication process which includes  
2 affidavits.

3 But when we just have one  
4 affidavit from a person whose self-interest is  
5 to say that they're in a building and that's  
6 it, without any verification that they were  
7 there -- it's just, it's not administrable.

8 It would cross all of our sites.  
9 People would just -- they would say, well, I  
10 said I was in the building at Rocky Flats, and  
11 I said I was in this building, why don't you  
12 just take my statement as well?

13 We really need more solid  
14 verification from Department of Energy  
15 somewhere that these people worked in a  
16 building.

17 So if you were to go and say,  
18 these buildings --

19 MEMBER ZIEMER: So you don't accept  
20 affidavits per se?

21 MS. LEITON: We do accept them,  
22 but we accept them in conjunction with other -

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 - either affidavits, like supervisory  
2 documentation or some kind of evidence that  
3 they were actually there.

4 But a self-serving affidavit in  
5 and of itself alone is not going to be  
6 sufficient to meet the burden of proof, I'm  
7 afraid.

8 MEMBER ZIEMER: Okay, I didn't  
9 realize that. I have been given the  
10 impression that affidavits were accepted per  
11 se. But you need an independent verification.

12 MS. LEITON: Yes, unfortunately,  
13 just because --

14 MEMBER ZIEMER: I got it, I got  
15 it.

16 MS. LEITON: -- it would cross our  
17 entire program.

18 MEMBER ZIEMER: It was an idea  
19 that I thought, it couldn't be any worse than  
20 you would have to start with. There might  
21 actually be people who, I mean -- well, I just  
22 don't know that everybody would lie for

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1     \$150,000.

2                   MS. LEITON:     Right, I understand  
3     the concept.

4                   CHAIRMAN MELIUS:     What about, do  
5     you accept coworker affidavits?

6                   MS. LEITON:     In some situations,  
7     we would accept coworker affidavits.  Usually,  
8     it's more prominent if we have something from  
9     a supervisor that, you know, that worked there  
10    with them.

11                   We can accept that, it's just, it  
12    gets a little bit iffy when, you know, there's  
13    a cohort of people and they all work there and  
14    they all are going to say, hey, look, if you  
15    say you were there and I'll say you were there  
16    -- it gets a little bit sketchy there.

17                   And we have this issue only, you  
18    know, if it were just this one facility and it  
19    weren't going to be, it's just that it will  
20    run throughout the entire program.

21                   They'll       start       doing       this  
22    everywhere.  And they'll say, if you did it at

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 GE, why didn't you do it everywhere else?

2 And that would just kind of -- the  
3 credibility of what we're doing would be  
4 diminished.

5 CHAIRMAN MELIUS: Okay.

6 MEMBER ZIEMER: Okay, well, thank  
7 you.

8 MS. LEITON: Sorry, that's  
9 probably not the answer you wanted to hear.

10 MEMBER ZIEMER: No, I was trying  
11 to find a way to sort of make it more fair, in  
12 terms of this particular site where we know  
13 the work is restricted to a pretty small area.

14 And it's not like some of the  
15 other sites, where you're going from one  
16 building to another and there's nuclear work  
17 going on all over the place. This is very  
18 much more restricted.

19 MS. LEITON: I understand that.

20 MEMBER ZIEMER: And we had a  
21 similar case in Oak Ridge, except the site was  
22 much smaller, so we kind of grit our teeth a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 little bit and went with it that way with  
2 covering everybody at the Oak Ridge Hospital.

3 MS. LEITON: I understand.

4 CHAIRMAN MELIUS: Okay, thank you,  
5 Rachel. Any other questions or comments from  
6 Board Members on this? Yes, Bill.

7 MEMBER FIELD: Yes, I just had a  
8 question. At one point, maybe half a year ago  
9 or so there was discussion of documents being  
10 in the UK. I guess that's not, there's  
11 nothing at -- I just want to get some  
12 clarification on that.

13 MR. RUTHERFORD: Yes, we got a  
14 follow-on, I can't remember exactly when, but  
15 another follow-on that came back and said that  
16 they've searched like 50,000-something, large  
17 number of stuff, and then there was no  
18 documents there. Or they provided everything.

19 CHAIRMAN MELIUS: Yes. We found  
20 significant, or NIOSH found significantly more  
21 documents, information on this. I think, as  
22 LaVon said, it wasn't necessarily helpful in

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 terms of identifying work areas or people for  
2 dose reconstruction purposes.

3 But I think there was some, there  
4 was cooperation. So it's not a question of  
5 lack of cooperation, but rather that there  
6 doesn't appear to be records and I'm not sure  
7 if we ever quite understand the reasons for  
8 that and so forth.

9 Or maybe they are yet to be  
10 discovered somewhere. Any other questions?  
11 So, if not, we will be reporting back to you,  
12 possibly as early as the July meeting, if not  
13 at the August meeting, on that.

14 That concludes this session. We  
15 need to reconvene at 4:45, since that's when  
16 we've scheduled the Weldon Spring update. That  
17 will be relatively brief.

18 Dr. Lemen is going to do that, so  
19 I would suggest we break again until then.  
20 And I would suggest that since there is a --  
21 my understanding is there's a tornado warning  
22 until 4:00, so people should probably not stay

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 in the room but rather in the hallways or  
2 something, and certainly stay away from the  
3 windows, which are over there behind the  
4 curtains. Yes, an hour and 15 minutes. Or go  
5 up to your rooms, but be careful in the  
6 elevators.

7 (Whereupon, the above-entitled matter  
8 went off the record at 3:33 p.m. and resumed  
9 at 4:48 p.m.)

10 CHAIRMAN MELIUS: Okay, we'll  
11 reconvene and our speaker disappeared. Let me  
12 explain, we're doing a little change in  
13 schedule here. Hopefully, this will be  
14 helpful.

15 First we have an update, Richard  
16 Lemen will give it on the Weldon Spring Work  
17 Group and the review of the Weldon Spring SEC.

18 And then what we'll do is we have  
19 a public comment period scheduled for 5:30.  
20 We know there's some people here already, and  
21 rather than hold you up and especially given  
22 the weather and so forth, we will go right

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 into the public comment period after Dr. Lemen  
2 speaks.

3 But we will certainly hold the  
4 public comment period open through 5:30 and a  
5 little bit after, for other people that may  
6 want to be calling in.

7 Some have already indicated to us,  
8 including one of the petitioners, that they  
9 might call in a little bit later. And there  
10 may be some other people, too.

11 But hopefully that will facilitate  
12 those of you that need to get home tonight and  
13 have a longer drive in this weather.

14 So, we'll start with Dr. Lemen.  
15 Ted, do you want to check the line?

16 MR. KATZ: Two things, yes. Let  
17 me check the line, just to see. Do we have  
18 Board Members on the line?

19 MEMBER ZIEMER: Yes, Paul Ziemer  
20 on the line.

21 MR. KATZ: Great, Paul. Any other  
22 Board Members?

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 (No response.)

2 MR. KATZ: I also just wanted to  
3 announce for everyone in here who -- some  
4 folks might be a little nervous about the  
5 situation here.

6 The people in the hotel are  
7 monitoring the weather, and if things start to  
8 look truly dicey, they'll come and let us know  
9 and there's a route out to a safer place.  
10 Which would be, just to tell you about it so  
11 you have it in your head anyway, is we go back  
12 through the glass doors to the lobby and then  
13 down out from the lobby into the parking  
14 garage.

15 And we keep going down to the  
16 bottom of the parking garage. But that's the  
17 safest place to be if there is a tornado in  
18 the area, and that's what we would do, just to  
19 let you know.

20 But the hotel people are watching  
21 and they will come and speak to us if it's  
22 starting to look iffy.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER BEACH:   Someone told Zaida  
2   that it was downgraded from a warning to a  
3   watch.

4                   MR.   KATZ:       Understood, I heard  
5   that, but who knows what will happen over the  
6   next 45 minutes or an hour.

7                   CHAIRMAN MELIUS:   Just so everyone  
8   knows that -- I don't want Wanda to worry.

9                   MEMBER MUNN:   Really?

10                  CHAIRMAN MELIUS:   Mike Gibson, who  
11   is the Chair of the Work Group, couldn't be  
12   here this week for the meeting, so Dr. Richard  
13   Lemen, who is another Member of the Work Group  
14   and Member of the Board, will be giving us the  
15   update.   Dick.

16                  MEMBER LEMEN:   Thanks, Dr. Melius.

17   As Jim said, Mike Gibson is not here. I'm on  
18   this Work Group, as is Robert Presley, and I'm  
19   going to briefly go through the slides that  
20   Mike had had prepared for today.

21                  A   brief   review   of   the   Weldon  
22   Spring site, and I think you all have a

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 handout, so I'm not going to go through each  
2 of these. You can read those. Does everyone  
3 have a handout, is that right?

4 CHAIRMAN MELIUS: I believe so.

5 MEMBER LEMEN: Okay. As you can  
6 see, the dates that are applicable in the  
7 brief history here. This is, the site is west  
8 of St. Louis and this is a diagram of the  
9 site.

10 This is a photo of the engineering  
11 disposal cell, as it appeared in 2008. To  
12 recap the Weldon Spring Site Profile and the  
13 SEC activities, in June of 2005, NIOSH issued  
14 their Site Report.

15 And in March of 2009, SC&A issued  
16 the Weldon Spring Site Profile Review. And in  
17 September of 2009, the SEC-00143 was  
18 qualified.

19 And then in April of 2010, NIOSH  
20 issued an Evaluation Report, and the first  
21 Working Group meeting was held on October of  
22 last year. The second meeting was January of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 this year, and the third meeting was earlier  
2 this month of this year.

3 I'll give you the summary first,  
4 and then I'll address each of these nine  
5 items. But the summary of the SEC issues from  
6 '57 to '67 are, one, accuracy and completeness  
7 of the internal and external dose data,  
8 including air and coworker data.

9 Secondly, the lack of egress  
10 monitoring. Third, the lack of dose records  
11 from 1967. Fourth, the no radon or thoron  
12 measurements.

13 Five, validity of method used to  
14 assess recycling uranium intakes. Six, lack  
15 of neutron dose data. Seven, lack of air  
16 measurements at quarry and raffinate pits  
17 during 1957 through '67.

18 And, eight, impact of accidents --  
19 incidents on dose reconstruction. And  
20 finally, geometry and extremity monitoring.

21 There were 28 Site Profile issues  
22 identified. Most of these Site Profile issues

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 have been incorporated into the SEC issues, or  
2 have been addressed and/or are being  
3 addressed.

4 As far as number one, that we just  
5 went through the nine, the accuracy and  
6 completeness of data. The accuracy of data:  
7 the dose reconstructors use only photocopies  
8 of the original Weldon Spring data sheets.

9 And electronic or CER databases  
10 are not used for the dose reconstruction.  
11 Completeness of the data is an issue, and  
12 that's not yet been verified.

13 And presently, NIOSH is addressing  
14 that. Second, the lack of egress monitoring,  
15 sufficient bioassay data to reconstruct dose,  
16 if ingestion did occur, is being looked at.

17 Second, external exposure  
18 addressed by monitoring and skin dose  
19 calculations. And third, issue is presently  
20 being closed because of these issues being  
21 addressed.

22 Third, the lack of dose records

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 for 1967 has been an issue. And indications  
2 are that 1967 may have been a transition year.

3 Operational period, external and  
4 internal data sufficient to bound dose  
5 incurred during 1967.

6 And the issue has presently been  
7 closed because of that decision. The fourth,  
8 no radon or thoron measurements. NIOSH  
9 performed analysis of potential environmental  
10 and/or radon and thoron intakes, and issued  
11 response on April the 21st, 2011.

12 SC&A is presently reviewing  
13 NIOSH's response and its SEC implications, and  
14 we'll hear more about this as this progresses.

15 Fifthly, the validity and method used to  
16 assign recycled uranium intakes, the method is  
17 presently being addressed to determine if  
18 consistent and appropriate intakes are being  
19 applied during dose reconstruction.

20 The sixth issue, the lack of  
21 neutron dose data, there is, as you see, a  
22 lack of that at Weldon Spring. The Fernald

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 neutron dose method can be used as surrogate,  
2 because of similar materials, according to the  
3 NIOSH Evaluation.

4 SC&A and NIOSH are presently  
5 evaluating Weldon Spring's neutron dose  
6 assignment methodology to see if this really  
7 will be effective.

8 Seventh, the lack of air  
9 measurements at the quarry and raffinate pits  
10 during 1957 to 1967. Measurements were  
11 performed in the latter period and appear to  
12 be acceptable to operational period, because  
13 the quarry and pits not released to DOD and  
14 conditions remained fairly constant.

15 The issue has presently been  
16 closed and is not considered an issue any  
17 longer.

18 Number eight, the impact of  
19 accidents or incidents on dose reconstruction.  
20 Bioassay data is available for workers with  
21 accidents and claims reviewed. The  
22 accidents/incidents are factored into the dose

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealgross.com](http://www.nealgross.com)

1 response process on an individual case-by-case  
2 basis. NIOSH is to provide a statement to the  
3 Working Group concerning claimant-favorability  
4 for using group bioassay monitoring. So we're  
5 awaiting that information.

6 And lastly, the geometry and  
7 extremity monitoring, NIOSH is currently  
8 evaluating methods used at other DOE uranium  
9 sites for dosimetry, geometric and extremity  
10 monitoring and the impact on recorded doses at  
11 the Weldon Spring site.

12 So, in summary, the Weldon Spring  
13 Working Group, NIOSH and SC&A have been  
14 actively working on the SEC and Site Profile  
15 issues during the last year.

16 We've had three meetings, as you  
17 can see, starting in October of last year.  
18 And then another in January and another in May  
19 of this year.

20 The progress has been made on each  
21 of the nine SEC issues, as you had seen in the  
22 nine issues I just presented. And several

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 important areas are yet to be evaluated, which  
2 I pointed out among the nine areas.

3 So that's my presentation from the  
4 Board Working Group. I don't know if SC&A or  
5 NIOSH wants to make any comments at this time  
6 or not.

7 CHAIRMAN MELIUS: Stu or anybody,  
8 I'm not sure who is involved from -- Mark's  
9 the lead, okay, I didn't know that. Okay,  
10 Mark.

11 MR. ROLFES: Thank you, Dr. Lemen.  
12 I did have one additional update, since I've  
13 come back into the office, we do have an  
14 additional response ready for the Work Group.

15 I should be able to send that  
16 within the next couple of weeks. It is an  
17 updated response on recycled uranium, so that  
18 was one of the nine issues that had been  
19 discussed previously.

20 And we do have a new White Paper  
21 to deliver on that.

22 MEMBER LEMEN: We will be looking

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 forward to get that.

2 CHAIRMAN MELIUS: One of my  
3 questions, and maybe while you're both up  
4 there, is sort of, I didn't quite understand  
5 the schedule on all of this, in terms of the  
6 various reports and so forth.

7 MEMBER LEMEN: Well, we're hoping  
8 that in our next Working Group Meeting, that  
9 we'll have answers to all of these issues.

10 CHAIRMAN MELIUS: Okay.

11 MEMBER LEMEN: And that's what we  
12 had decided. We haven't set a next date yet,  
13 but it will be in the next couple of months.

14 CHAIRMAN MELIUS: Okay.

15 MEMBER LEMEN: So we hope to have  
16 it completed in the next couple of months.

17 CHAIRMAN MELIUS: Okay.

18 MR. ROLFES: So I think we should  
19 have some tentative information, at least, in  
20 the next couple of months, certainly.

21 CHAIRMAN MELIUS: Okay, so this  
22 would be potential closure of this --

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER LEMEN:   We're hoping by the  
2 August meeting.

3                   CHAIRMAN MELIUS:   August meeting.

4                   MEMBER LEMEN:       We would have  
5 something a little bit more finite for you.

6                   CHAIRMAN MELIUS:       Okay, good,  
7 thanks. Joe, who is behind you?

8                   MR. FITZGERALD:   Actually, Ron  
9 Buchanan is our lead on this Work Group, he  
10 couldn't be here. But the one thing I would  
11 add is that, at the Work Group we decided  
12 that, from a data accuracy standpoint, what we  
13 need to do is submit a sampling plan to the  
14 Work Group, on how we would actually sample  
15 for the accuracy of the database and that  
16 sampling plan was developed and submitted to  
17 the Work Group last week.

18                               And we didn't hear any objections  
19 and we're hoping NIOSH had a copy of that as  
20 well. Okay, we need to make sure you have a  
21 copy. And we're going to proceed with that  
22 over the next three or four weeks.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   MEMBER LEMEN:    I'm not sure that  
2   Mike sent that on to NIOSH.

3                   MR. FITZGERALD:    Oh, okay. That  
4   might be the issue.

5                   MEMBER LEMEN:    I'll check and find  
6   out what's wrong.

7                   MR. FITZGERALD:    We'll make sure  
8   that gets around so everybody has a copy.

9                   MEMBER LEMEN:    Can you go ahead  
10   and send it to NIOSH?

11                  MR. FITZGERALD:    I'll go ahead and  
12   make sure that --

13                  MR. KATZ:        I think we have that,  
14   so I think I have it too and we can  
15   distribute. But I think it just came in last  
16   week. We just got it, really.

17                  MEMBER LEMEN:    It's very new.

18                  MR. KATZ:        Yes, so, I think we  
19   probably need a little -- the Work Group  
20   Members need a little bit of time to look at  
21   it and make sure that they're --

22                  MR. FITZGERALD:    Well, particularly

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 at this meeting, I just want to make sure  
2 everyone is aware that that is in, it's being  
3 looked at.

4 MR. KATZ: Right, give them a  
5 chance to give a thumbs up before you proceed.

6 MR. FITZGERALD: Again, the only  
7 thing that we'll be doing from our standpoint,  
8 is that sampling.

9 MEMBER LEMEN: Again, I think  
10 we'll have most everything we need to address  
11 this in much more detail with some finality in  
12 August.

13 CHAIRMAN MELIUS: Okay, very good.  
14 Board Members have questions for Dr. Lemen?

15 (No response.)

16 MEMBER LEMEN: Good, I don't have  
17 any good answers.

18 (Laughter.)

19 CHAIRMAN MELIUS: Board Members on  
20 the phone, any -- Paul, do you have any?

21 MEMBER ZIEMER: No questions.

22 CHAIRMAN MELIUS: Okay, thank you.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

1                   MEMBER LEMEN: Thank you, Paul.

2                   CHAIRMAN MELIUS: For those of you  
3 that live here locally, Dr. Lemen happens to  
4 be from Missouri, you may have detected in his  
5 accent from California, Missouri, I believe.  
6 South California, is that right?

7                   MEMBER LEMEN: Yes.

8                   CHAIRMAN MELIUS: He's going to  
9 his high school reunion. Tenth, right?

10                   (Laughter.)

11                   CHAIRMAN MELIUS: This weekend.  
12 We all wish, right? Why don't we go into --  
13 at least start the public comment period.  
14 Ted, do you want to --

15                   MR. KATZ: Yes, let me just  
16 explain some ground rules for public comments.

17 As you may or may not have noted, because I  
18 think some people here have just joined us  
19 recently this afternoon.

20                   All of the proceedings of the  
21 Board are fully transcribed verbatim. So  
22 whatever you might say in your public comments

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 will be captured and will end up in a  
2 transcript of the Board that will be on the  
3 public website available to everybody.

4 Everything you say, everything you  
5 say personally about yourself will be  
6 included. If you include personal details  
7 about other individuals, however, we'll redact  
8 that information to the extent that it  
9 protects the privacy of whoever you might  
10 speak about.

11 So, though it will all be heard  
12 here, when the transcript is published, we  
13 would leave out whatever details would  
14 identify those other individuals you might  
15 speak about.

16 And if you want to see the full  
17 rules about this Redaction Policy, as it's  
18 called, it's on the website. It's also out on  
19 the table with the other papers.

20 But it's on our NIOSH website  
21 under the Board section of the NIOSH OCAS --  
22 or I think it's still called OCAS -- web page.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1       Okay, that's it, thanks.

2                   CHAIRMAN MELIUS:   Anybody, any of  
3 the petitioners here that would like to make  
4 comments? Okay.   Would you mind stepping to  
5 the mic and, again, don't be intimidated by  
6 the big group, okay?   We're actually very  
7 friendly.

8                   MS. TRIPLETT:    My name is Tina  
9 Triplett.   I'm one of the co-petitioners for  
10 the Weldon Spring plant and I basically just  
11 have a statement that I'd like to read.

12                   CHAIRMAN MELIUS:   Okay, go ahead,  
13 Tina.

14                   MS. TRIPLETT:    The original intent  
15 of this Act was to compensate sick and dying  
16 nuclear workers for their sacrifices to this  
17 country in a timely and fair manner.

18                   I had faith in this compensation  
19 program when it was first implemented.   But  
20 the frustration that continues to escalate  
21 from the lack of progress is overwhelming.

22                   There appears to be no sense of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 urgency to pay these workers and their  
2 families. It appears at times those  
3 administering the program lose focus and often  
4 forget that there are claimant survivors and  
5 petitioners desperately waiting of answers  
6 that they deserve. The burden of proof placed  
7 on these individuals seeking compensation is  
8 insurmountable and there's a lack of full  
9 disclosure with Freedom of Information Act  
10 requests.

11 This whole process is a vicious  
12 circle, and while administering agencies are  
13 battling out their differences, people are  
14 dying. Thank you.

15 I fully understand that there is a  
16 process and I appreciate all the hard work by  
17 everyone. But there comes a time when a  
18 decision has to be made.

19 This program does not have to  
20 generate years of discussions to declare work  
21 sites Special Exposure Cohorts. There has to  
22 be accountability to getting issues addressed

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 in an efficient manner.

2 The concern about Walden Spring  
3 hard copy records versus the CER database is  
4 troubling. NIOSH has been unable to either  
5 produce Walden Spring plant hard copy records  
6 or produce validations for these records  
7 within the CER database.

8 Many Weldon Spring plant records  
9 have also been destroyed and have never been  
10 located. As previously noted, Walden Spring  
11 plant records from the shelf list V2161 has  
12 never been found, because they were already  
13 beyond the destruction date.

14 Furthermore, in a letter from  
15 Belcher, Area Manager, to Roth, the Director  
16 of Research and Developmental Division and  
17 reference to Mallinckrodt Chemical Works  
18 Health Protection Records from November 2nd,  
19 1966, it was noted, quote, "in addition to the  
20 types of records proposed in a recent letter  
21 to Mallinckrodt Chemical Works for transfer to  
22 Oak Ridge, the following records deserve

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 ultimate disposal consideration:

2 Medical X-ray files, film used in  
3 dosimetry, in-plant sampling records, and  
4 environmental sampling records," unquote.  
5 There is no complete list of records available  
6 for the Weldon Spring plant which leads to  
7 huge data gaps.

8 And, as a result, NIOSH makes  
9 assumptions and lacks the ability to perform  
10 dose reconstructions with sufficient accuracy  
11 and plausibility.

12 In addition to the concern of hard  
13 copy validation, I'd like to address the memo  
14 from Mallinckrodt's own Health and Safety  
15 Manager, Mont Mason.

16 This has yet to have been  
17 addressed. In Mason's memo, uranium and urine  
18 report from August 1975, Mason addressed the  
19 following:

20 Number one, uranium and urine is  
21 not an indicator of body burden and no  
22 relationship of fixed internal deposition on

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 radiation dose.

2 Numbers were controlled numbers to  
3 take action for exposure to dust. Number two,  
4 Mason never claimed a correlation between the  
5 urine uranium values as a finite burden of  
6 uranium. The title of uranium and urine on  
7 Weldon Spring printouts as, quote, "internal  
8 exposure," unquote, was incorrect and grossly  
9 misleading.

10 Uranium and urine simply means a  
11 milligram per liter of uranium in a spot urine  
12 sample. Number three, there were omissions in  
13 the uranium and urine data on tape at CTC.

14 Number four, the reading of .000  
15 used as a "no record of exposure" is  
16 incorrect, because it leaves the impression  
17 that tests were made with zero results. But,  
18 in many cases, there were no tests made.

19 Number five, there was a problem  
20 matching name information from records to  
21 Social Security Numbers in CTC master file,  
22 800 no match Social Security Numbers and 300

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 no match alphas.

2 Number six, some employees'  
3 medical jackets have been removed or lost.  
4 And, number seven, data after shutdown has  
5 been copied, keypunched and taped, but the  
6 test for data shows that no match between tape  
7 totals and totals Mason could reconstruct.

8 Furthermore, a report issued to  
9 the Advisory Board in April of 2005, with  
10 respect to the previous Mallinckrodt  
11 petitions, and please let us not forget that  
12 this is Mallinckrodt, Weldon Spring plant,  
13 showed that the use of daily weighted averages  
14 is not claimant-favorable.

15 SC&A has already addressed that  
16 the use of DWA cannot establish bounding  
17 doses. Also, during the previous Mallinckrodt  
18 petitions, Mont Mason revealed liability  
19 concerns with data integrity for dose  
20 reconstruction.

21 In a memo dated October of '73 to  
22 Dr. Thomas Mancuso, Mason reported significant

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 liability concern, which affected how  
2 Mallinckrodt recorded its data on dust  
3 studies.

4 A dust evaluation from 1949  
5 resulted in the removal of 34 employees.  
6 Mason stated in light of growing awareness and  
7 presence of radioactive materials, carefully  
8 drafted explanations and responses were  
9 prepared in advance of announcing the transfer  
10 of people.

11 Managers, supervisors and medical  
12 staff and the Health Department were all  
13 coached and coordinated. As prior caution and  
14 upon the advice of an attorney, a formal  
15 report was never prepared on the study.

16 The company's own Health and  
17 Safety Director cast serious doubts on the  
18 reliability of Mallinckrodt's dust study.

19 This undermines the very basis for  
20 the use of Mallinckrodt records in dose  
21 reconstruction.

22 Another concern at the Weldon

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Spring plant was the production or extraction  
2 of thorium during the operational period and  
3 the lack of the appropriate monitoring.

4 In a review of Mallinckrodt  
5 Chemical Works from 1965, it was stated that  
6 the conventional bioassay techniques were not  
7 adequate for monitoring potential thorium  
8 exposures as a result from current  
9 Mallinckrodt production operations.

10 Thorium pot denitration operations  
11 were observed to be poorly contained and  
12 visibly dusty. Particularly was thus noted  
13 during a hand scooping transfer procedure,  
14 which was being done outside the hood.

15 Air movement in the vicinity was  
16 vigorously adverse to contamination control,  
17 due to a partially open outside door.

18 Area Manager Belcher also stated  
19 that thorium exposures were more than realized  
20 at the Weldon Spring plant. Records also  
21 indicate that thorium was extracted from the  
22 raffinates during the operational period.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           In an ORAU memo from September 16,  
2 1991, a floor plant study classification of  
3 radium, radon and thorium exposure indicated  
4 that in 1955, Mallinckrodt was asked by the  
5 AEC to extract thorium from raffinate residues  
6 on a production basis.

7           During this period, health hazards  
8 of thorium exposure were unknown. Hard copy  
9 records document Mallinckrodt's futile efforts  
10 to seek help from the AEC and government-  
11 contracted laboratories for guidance on health  
12 hazards for setting the permissible body  
13 burden and concentrations in urine and air.

14           This sparked the AEC to begin  
15 animal experiments to determine thorium  
16 biological hazards.

17           Los Alamos agreed biological  
18 effect of thorium should be treated  
19 approximately equal to plutonium on a curie  
20 basis.

21           This pilot plant work continued  
22 until the shutdown of the duster site in 1958.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 And from 1958 to 1966, the process was  
2 continued on a large-scale production basis at  
3 the Weldon Spring plant.

4 And, to the best of my knowledge  
5 and research, NIOSH has lacked the ability to  
6 reconstruct doses for internal thorium, and as  
7 a result, Special Exposure Cohorts have been  
8 granted.

9 There's no sufficient personnel  
10 and work place monitoring for thorium at the  
11 Weldon Spring plant. As a petitioner for the  
12 plant, I am beyond discouraged in the SEC  
13 process in the lack of communication and  
14 progression in granting cohorts. Weldon  
15 Spring plant workers and claimants are in  
16 desperate need of an expedited resolution.  
17 Thank you.

18 CHAIRMAN MELIUS: Thank you. Does  
19 anybody else wish to speak? Anybody else in  
20 the audience? Excuse me, who --

21 MS. JOHNSON: This is Mary  
22 Johnson, I would like to speak.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:        Okay, yes,  
2     you're one of the -- okay, go ahead. I just  
3     want to make sure the petitioners could speak  
4     first.

5                   MS. JOHNSON:    Okay, do you want me  
6     to wait?

7                   CHAIRMAN MELIUS:    NO, no, you can  
8     go ahead. You can go ahead, I'm sorry.

9                   MS. JOHNSON:    Okay, first I wanted  
10    to thank you for allowing me to speak today.  
11    And before I begin, I would like to tell the  
12    Advisory Board and NIOSH and SC&A that I have  
13    the utmost respect and admiration for the  
14    expertise and knowledge they bring.

15                   And so the comments I make, I  
16    would like to not be taken personally, because  
17    my frustration is really about the  
18    administrators of this program.

19                   I hope today to be a voice for the  
20    claimants and the workers and the survivors of  
21    the workers at the Mallinckrodt Weldon Spring  
22    site.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 I've read the dose reconstruction  
2 on my claim. I've read the Site Profile,  
3 NIOSH's evaluation, the SC&A reviews and  
4 responses, and I have listened to all of our  
5 Work Group meetings.

6 Additionally I, along with my  
7 daughter, [identifying information redacted],  
8 and Tina Triplett, who are both petitioners  
9 for the SEC on the Weldon Spring site, have  
10 exhaustively searched through documents at  
11 local libraries, Weldon Spring Interpretative  
12 Center, K: drives, private archives, online  
13 databases, employment records and various  
14 other sources.

15 Our searches and FOIA requests  
16 have produced virtually nothing regarding the  
17 Weldon Spring site. Never has anyone searched  
18 so thoroughly and obtained so little.

19 Instead, the most valuable  
20 information we seem to have obtained through  
21 the last ten years is through the sharing of  
22 stories and facts from the workers themselves,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 much of which now is passed on by their  
2 survivors because so many of them have died.

3 But these workers' experiences  
4 don't seem to quite fit into the models used  
5 for dose reconstruction.

6 Therefore, to me, the one glaring  
7 absence in all of the science behind our  
8 claims is the human element. The amount of  
9 research and science in processing our claims  
10 and the SEC petition, to me are overwhelming  
11 and mind-boggling to the average claimant.

12 It's as if our SEC is on trial,  
13 but we have no representation. I do not  
14 believe in my heart that the Act of 2000 asks  
15 for this kind of seemingly obsessive  
16 scrutiny.

17 Executive Order 13179, which was  
18 signed by President Bill Clinton on December  
19 the 7th, 2000, also supports fair and timely  
20 compensation for these workers and their  
21 survivors, and states that we should ensure  
22 the program minimizes the administrative

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 burden on the workers and their survivors, and  
2 respects their dignity and privacy. It also  
3 states that all pertinent and available  
4 information for evaluating and processing  
5 claims be shared and provided to claimants.

6 Believe me when I say there is  
7 nothing, nothing timely about this program.  
8 We are burdened and there is no dignity in  
9 being made to beg for a pittance that will  
10 never give back the hell that these workers or  
11 their loved ones -- who have died.

12 I urge you to remember that this  
13 is a compensation program first, not a  
14 research project. We're here in this  
15 situation today because the government and  
16 scientists, in their quest for an atomic bomb,  
17 forgot the human element and we are locked  
18 here in this compensation program because of  
19 research for answers which cannot always be  
20 clear.

21 And, once again, it seems the  
22 human element is becoming forgotten. Please

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 step back and remember the human elements,  
2 these workers and their survivors who have  
3 already waited far too long.

4           You know, I have attended some of  
5 these public meetings and ceremonies that  
6 we've had, and it's been mentioned in several  
7 instances what brave men and women these  
8 workers were and how they were heroes.

9           Maybe, but not in the usual  
10 manner. These men and women, many very young  
11 -- my husband was 18 -- didn't know what they  
12 were walking into, nor what the cost to them  
13 would be. Nor were they told or given the  
14 option, based on the information, of whether  
15 they wanted to work there or not. They didn't  
16 know they were walking into years of great  
17 health problems or even an early death.

18           They didn't know the harm they may  
19 have carried home to their loved ones. No  
20 one, no one, wants to be that kind of hero.

21           You may remember, [identifying  
22 information redacted], she was a claimant from

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Weldon Spring site and [identifying  
2 information redacted]addressed the Board in  
3 years past, once in St. Louis and again in  
4 Chicago. And [identifying information  
5 redacted]suffered several years from very  
6 primary cancers. Two of them were quite rare.

7 [Identifying information redacted]  
8 was denied, after each one of these cancers  
9 were diagnosed, she was denied her claim time  
10 and time again. [identifying information  
11 redacted] died August the 27th, 2010. And we  
12 promised [identifying information redacted]we  
13 would continue pushing for this compensation,  
14 and we will.

15 We need an answer. We need an  
16 answer now so we can determine in which  
17 direction we need to proceed. Thanks for  
18 allowing me to speak.

19 CHAIRMAN MELIUS: Okay, thank you.  
20 Is there anybody else in the audience that  
21 would like to provide public comments?

22 (No response.)

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   CHAIRMAN MELIUS:  Is there anybody  
2   on the phone that would like to provide public  
3   comments?

4                   (No response.)

5                   CHAIRMAN MELIUS:  Okay, I guess  
6   what we'll do then is we will wait until 5:30  
7   and then we will continue the public comment  
8   period, that's the scheduled time.  So why  
9   don't we break until the next ten or 15  
10  minutes?  Thanks.

11                  (Whereupon, the above-entitled matter  
12  went off the record at 5:19 p.m. and resumed  
13  at 5:32 p.m.)

14                  CHAIRMAN MELIUS:  If we could get  
15  seated we should get started again, we do have  
16  some people on the line.  Excuse me, Denise,  
17  could we get seated, it's 5:30, we need to get  
18  started again.

19                  This is the Advisory Board on  
20  Radiation and Work Health with a thunderstorm  
21  in the background, which you may hear on the  
22  microphones, and public comment period.  And,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 Ted, do you want to give the introduction?

2 MR. KATZ: Yes, good afternoon,  
3 for folks on the phone, I don't think we have  
4 new folks here in the room, but we've had a  
5 few comments already.

6 And we're ready for you on the  
7 line. Just to let you all know that your  
8 comments are being transcribed verbatim and  
9 they will appear in the transcript to this  
10 Board Meeting, which will be published on the  
11 NIOSH website for this program for all the  
12 public to see.

13 So everything you say personally  
14 about yourself will be captured in the  
15 transcript. However, just to let you know,  
16 anything you might say about a third party,  
17 another person, what you say would be redacted  
18 or edited to protect the privacy of that other  
19 person.

20 And if you're interested in seeing  
21 the full details of this Redaction Policy,  
22 they are on the NIOSH website under the Board

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 section of the NIOSH website.

2 Under "meetings," you'll see  
3 "Redaction Policy." That's what I'm speaking  
4 to here.

5 CHAIRMAN MELIUS: Okay, thanks,  
6 Ted. Is there anybody on the line, phone  
7 line, that would like to make public comments?

8 MR. FESTER: Yes, I would.

9 CHAIRMAN MELIUS: Can you please  
10 identify yourself?

11 MR. FESTER: Yes. My name is  
12 Thomas Fester, F-e-s-t-e-r, from Cincinnati,  
13 Ohio.

14 CHAIRMAN MELIUS: Okay, thank you,  
15 go ahead, Mr. Fester.

16 MR. FESTER: I worked at the GE  
17 facility during the case period, 1961 to 1970.

18 I retired and developed bone cancer and, the  
19 bottom line is, they had to amputate my right  
20 leg. And of course Christ Hospital decided --  
21 they wrote letters it was radiation that  
22 caused it.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1           It might sound like I'm reading  
2 this off the paper, but I didn't write it. My  
3 points are, real quick, at GE, security was  
4 actually the main item, not radiation  
5 monitoring or any special precautions, no  
6 dosimeters, no warnings.

7           I listened to a meeting that you  
8 had on the GE facility and it seemed like the  
9 main concern was the number of claims, not  
10 anything else.

11           And I was really perturbed about  
12 that. But my point is there's only, from what  
13 I understand, there's only like 150 claims and  
14 even that, half of them are not even going to  
15 qualify for 21 cancers.

16           But what I wanted to get at was,  
17 like I said, your main concern would seem like  
18 the amount of claims -- and that shouldn't be  
19 it.

20           There's a lot of inconsistency in  
21 your stuff, from what I understand. I read in  
22 the paper and on the internet speaking of the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 inconsistency. For instance, Bethlehem Steel,  
2 they had enough for a dose reconstruction but  
3 they didn't, they put in a petition for a SEC  
4 and it went right on through. Now this is  
5 like the fourth time for GE and we ain't got  
6 enough time.

7           And I'm sure that NIOSH has done  
8 extensive research on this facility and highly  
9 recommends this for an SEC. They cannot find  
10 answers to very big questions, and it seems  
11 like a lot of hem-haw going around. My point  
12 is, next week, next month, you talked about  
13 August, September, next year, will not solve  
14 anything.

15           Without -- I don't know, I've  
16 never heard of any kind of a plan of action.  
17 I don't know if you have one or anything. My  
18 last comment was, I wish you guys would  
19 reconsider and make this an SEC facility, for  
20 those who -- only for the those who qualify.

21           There's a lot of people out there,  
22 a lot of widows who lost -- right at the time

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 when you retire, they lost their husbands, men  
2 have lost their wives, their kids -- it's  
3 always at a critical time and it can't be, the  
4 number of claims shouldn't really have  
5 anything to do with it.

6 My point is, I don't see, I didn't  
7 hear anything about a plan of action. So  
8 postponing it just seems very ridiculous.  
9 That's all I wanted to say. I very appreciate  
10 the time.

11 CHAIRMAN MELIUS: Thank you.  
12 There is a plan of action. It may not have  
13 been spoken about in detail here, or you might  
14 have not been on the phone at the time we  
15 talked about it.

16 But there is a plan of action, and  
17 as we've said, we expect it to be completed in  
18 the next month or two.

19 MR. FESTER: Well, I hope my  
20 letter goes to heart and I appreciate the time  
21 to speak to you. Because we don't have a lot  
22 of time left.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 I'm in my 70s and when you lose  
2 your leg soon as you retire, I'm sure that if  
3 it hit home to some of you people, you might  
4 speed up the qualification a little bit, but  
5 thank you very much for your time.

6 CHAIRMAN MELIUS: Okay, thank you.  
7 Anyone else on the phone?

8 MS. DAVIES: Yes, my name is Lois  
9 Davies. My father and I both worked at the  
10 General Electric Company at Evendale, in  
11 Cincinnati, Ohio.

12 We were both in the case period.  
13 My dad was a stationary engineer from the day  
14 General Electric opened. He took care of all  
15 the heating and air conditioning for all the  
16 buildings in Evendale and entered every  
17 building numerous times, because of his job,  
18 over the years.

19 And I was a secretary for 13 years  
20 at General Electric Company, and never -- I  
21 agree with the gentleman that just talked,  
22 that there was never, ever, never, never,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 anything mentioned about toxic waste, any kind  
2 of danger to your health.

3 The only concern at that time was  
4 the security, the secret security, which I  
5 know was necessary, but because of the secret  
6 documents and things, there were many times  
7 that I would have to walk to numerous  
8 buildings to deliver a document.

9 And I also worked in numerous  
10 buildings because of different promotions,  
11 which I know you mentioned, about depending on  
12 what buildings you worked in.

13 And all this information was given  
14 to them when I first submitted the  
15 information. But there was never, never  
16 mentioned anything about danger working in the  
17 buildings.

18 I've had breast cancer and I've  
19 taken chemo and radiation. I now have  
20 congestive heart failure, because of the  
21 chemo, because of the cancer. And my dad died  
22 of multiple myeloma.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1                   This has really been a nightmare.  
2     And, like I said, I've sent all the  
3     information that is necessary and it's just  
4     very upsetting that this has not been resolved  
5     and it just seems like there's just too many  
6     delays. And I do appreciate the time, thank  
7     you.

8                   CHAIRMAN MELIUS: Thank you. Is  
9     there anyone else on the phone who would like  
10    to make public comments?

11                  MS. ANDERSON: Yes, this is Lois  
12    Anderson. I am a widow of Ronald Anderson, he  
13    worked at General Electric for 30 years until  
14    he retired.

15                  And in June, six years ago, we  
16    were at a meeting in Tri-County, I think that  
17    was the area. But anyway, he filled out the  
18    claim forms and they were sent to Cleveland.

19                  He's gone now five years and they  
20    keep delaying it and delaying it and delaying  
21    it. My kids seem to think that this is a big  
22    joke, that you're all just waiting for me to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 die.

2 So, I agree with Lois and Mr.  
3 Fester and I'd really appreciate if you would  
4 get some answers on this, because I think  
5 NIOSH has done everything they can possibly  
6 do.

7 And I thank you for the time and  
8 listening to me.

9 CHAIRMAN MELIUS: Thank you.  
10 Anybody else on the phone that wishes to make  
11 public comments?

12 (No response.)

13 CHAIRMAN MELIUS: Okay, one more  
14 time, anybody else that wishes to make public  
15 comments?

16 (No response.)

17 CHAIRMAN MELIUS: Okay, if not,  
18 that then closes the public comment session  
19 and the Board will reconvene tomorrow at 8:15  
20 -- roughly 8:15 to 8:30 with the schedule.

21 And we believe Doug Daniels will  
22 be here, the speaker for tomorrow, and we'll

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1 go from there.

2 MS. ANDERSON: Is that on the GE  
3 again at 8:15 in the morning?

4 CHAIRMAN MELIUS: No, no, we'll be  
5 speaking about some more general issues.  
6 They'll be no further discussion of GE at this  
7 meeting.

8 MS. ANDERSON: All right, thank  
9 you.

10 CHAIRMAN MELIUS: Thank you.

11 (Whereupon, the above-entitled  
12 matter went off the record at 5:41 p.m.)

13

14

15

16

17

18

19

20

21

22

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)

1

2

3

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS

1323 RHODE ISLAND AVE., N.W.

WASHINGTON, D.C. 20005-3701

(202) 234-4433

[www.nealrgross.com](http://www.nealrgross.com)