

UNITED STATES OF AMERICA
CENTERS FOR DISEASE CONTROL

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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

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PRESENT (continued) :

ROBERT W. PRESLEY, Member

GENEVIEVE S. ROESSLER, Member

PHILLIP SCHOFIELD, Member

PAUL L. ZIEMER, Member*

TED KATZ, Designated Federal Official

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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

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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.

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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 --

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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

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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

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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

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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

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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.

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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

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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.

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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

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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

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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.

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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

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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

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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

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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.

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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

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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

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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

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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

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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.

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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

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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

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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.

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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

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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

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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

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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

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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

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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.

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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.

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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

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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.

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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

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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

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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

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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.

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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

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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.

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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

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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

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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.)

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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

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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

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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.

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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

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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

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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.

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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.

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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

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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

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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,

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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.

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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

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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.

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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

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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

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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

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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

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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?

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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.

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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

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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

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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

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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

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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.

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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.

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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

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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

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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,

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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

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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

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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.

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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

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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

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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,

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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

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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,

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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

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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,

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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

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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.

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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

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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

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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.

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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

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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

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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.

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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.

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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.

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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.

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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

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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

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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

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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

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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

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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

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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

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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.

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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

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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

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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

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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

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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

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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

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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

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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.

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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

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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

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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,

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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

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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,

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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

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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

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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

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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

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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.

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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

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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.

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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

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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

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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

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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

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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

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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

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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

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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 -

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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

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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

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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,

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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

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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

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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

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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

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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

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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,

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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

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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

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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

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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.

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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.

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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.

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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

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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.

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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.

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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

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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

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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

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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

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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.

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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

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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?

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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?

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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,

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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.

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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,

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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

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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

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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

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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,

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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

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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,

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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

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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

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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

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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

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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.

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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.

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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

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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

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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

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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

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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

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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

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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

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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,

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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

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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

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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

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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

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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.

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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

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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

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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

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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

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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

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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

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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.

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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

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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

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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.

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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

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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?

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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.)

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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.

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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

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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

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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.

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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

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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.

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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

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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.

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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.

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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

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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.

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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

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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

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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

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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

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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

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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

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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,

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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

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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

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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

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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

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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

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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.

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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

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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

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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

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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

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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

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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.

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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

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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

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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.

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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

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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 -

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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

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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

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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

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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

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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

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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

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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?

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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.

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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

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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

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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

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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

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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

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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

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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

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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

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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 --

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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.

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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

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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.

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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

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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.

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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

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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

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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

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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

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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

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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

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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

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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.

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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.

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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.

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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.

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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,

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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

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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

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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

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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.)

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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,

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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

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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.

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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

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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

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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.

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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,

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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.

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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

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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

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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.)

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